# THE AMERICAN PEOPLE

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## CENSUS 2000

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EDITORS

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# Introduction

*By Reynolds Farley and John Haaga*

The Framers of the Constitution faced challenging problems about how to allocate representation in Congress, how to levy taxes—this was long before the days of an income tax—and how to deal with slaves when counting the population. Recognizing that if census taking were left to the individual states, the results might be uneven, they mandated that Congress take a census within three years and then every ten years thereafter. As a result, this nation's continuous history of census taking, dating from 1790, is the longest worldwide.

The leaders of the fragile new nation believed that the United States was a dynamic, rapidly growing country destined to exploit the riches of North America, while they viewed European nations as stagnant or in decline. Thomas Jefferson, who as Secretary of State oversaw the first census, realized that the census could be an ideal tool not just to count people but also to chart the industriousness and entrepreneurial activities of Americans. He was the first to propose adding questions to the basic count. The findings, he believed, would both measure the nation's progress and convince Europeans of this country's stability, strength, and growth. The first additional questions concerned industrial activity. By 1830, census takers also sought information about the health of the population, deafness and blindness, and, one decade later, insanity. Prior to the Civil War, questions concerning literacy and school enrollment were added, reflecting the growing national dedication to developing a public school system.

For several decades after the Revolution, few migrants arrived from Europe, but this changed in the 1830s. By 1850, the census contained questions about citizenship and country of birth. Concerns about the rapid growth in the number of foreigners and the radical changes immigration might produce prompted the addition of numerous questions in the late nineteenth century, about mother tongue, parents' places of birth, and the frequency of childbearing. A growing awareness of public-health issues after the Civil War led to census questions about mortality within a household in the year before the enumeration. As the nation became predominantly urban, innovative questions sought to measure and describe the nation's housing stock and the occupations or activities of adults.

The Depression of the 1930s generated monumental changes in the nation's statistical system, since more information was needed to assess the relative effectiveness of federal economic policies. The economic crisis of the 1930s led to the inclusion of questions about weeks of employment, hours of work, duration of unemployment, specific occupations and industry of employment, income, educational attainment, and migration within the country. The 1940 census was the first modern enumeration and served as a model for all subsequent counts. It was the first time that statistical sampling was used, with some individuals answering more questions than others. More recent censuses replicate Census 1940, although many questions have been altered, a few have been deleted, and several have been added, including inquiries about transportation to work and, for the first time in 2000, the care of grandchildren, and a new approach to getting a better picture of the country's ethnic and racial mix.

Sampling has been used in the last seven censuses. In 2000, all households filled out a brief census questionnaire providing basic information about age, sex, race, household relationships, and tenure. One household in six answered a longer questionnaire, yielding detailed information about how this nation is changing and why.

Since 1900, the Census Bureau has issued special reports following the enumeration summarizing new findings or synthesizing fresh data with the old. Since 1930 the Russell Sage Foundation has supported the writing and publication of these volumes, a tradition that continued with Census 2000. In cooperation with the Population Reference Bureau, the Russell Sage Foundation sponsored fourteen short chapters designed to lucidly synthesize key findings from Census 2000, thus making them highly accessible to a broad audience of policymakers, journalists, college students, and interested citizens. Authors and topics were selected with the help of a distinguished review panel from among a much larger number of excellent proposals. The authors of the chap-

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ters met on several occasions during the work and were urged by the series editors to put census findings into the context of social, economic, and demographic trends. This volume brings the chapters together, providing a variety of perspectives on the state of the nation at the beginning of the new century.

Numerous federal surveys and economic data systems provide useful information on a monthly, quarterly, or annual basis, but they can only tell us what has happened at the regional or state level or, on the national level, provide broad-brushstroke data. Their sample sizes are not sufficient to allow comparisons of particular groups, be they recent immigrants from different countries, occupational groups, or persons with specific skills or physical handicaps. Surveys also have sample sizes too small to allow fine-grained geographic comparisons. To understand what happened in local areas and to groups of special interest, we need to analyze information provided by the 17.6 million householders who answered the long-form census questionnaire in April and May of 2000.

Traditional enumeration methods proved to be highly effective in counting the population in 2000—but this was hardly a foregone conclusion for those who had followed the technical and political debates related to undercounts in previous censuses. Beginning in the 1950s the Census Bureau scientifically measured census undercount using sampling, reinterviews, and demographic methods. Their results showed not only substantial undercount but also a disturbing pattern of racial differences; blacks were twice as likely to be omitted as whites—8 percent were missed in 1950—leading to an inequitable distribution of political representation. Strategies were designed to improve the count, but those used for Census 1990 did not work well. Net undercount in that year, 1.8 percent—was higher than in 1980, 1.2 percent. Demographic changes—more single-person households, more cohabitation, fewer people speaking English, more mother-only families—suggested that Census 2000 might be even less accurate than Census 1990. The Clinton administration sought simultaneously to reduce the cost of the enumeration and improve quality by using sampling, first to follow up for nonresponse and then to adjust for net census undercount.

The results of Census 2000 would be highly charged with implications for the political life of the nation. Republicans won control of Congress in 1994, and they realized that their chances to remain the majority party in the twenty-first century would be strongly influenced by Census 2000. If that enumeration counted many voters who were more likely to vote Democrat than Republican, it could be used to draw districts favorable to the Democratic party, and Republican control would be at risk. Legislators of both parties feared the potential consequences of a flawed count, since it could affect both reapportionment of congressional seats among states and the redrawing of legislative boundaries by the states using census estimates. Fearing that sampling and statistical adjustments for undercount might be done capriciously to aid Democrats and harm Republicans, Speaker of the House Newt Gingrich sued President Clinton about how the population would be counted. The Supreme Court expedited its hearing of this fundamental constitutional issue, and in January 1999—just fifteen months before the census was to begin—ruled 5 to 4 that sampling could not be used to obtain the count that would determine the allocation of congressional seats. Congress provided the necessary funds to recruit a small army of enumerators to visit the 34 percent of American households that had not responded to the mail inquiry for census information. Demographers feared that these efforts to complete the count might fail, since many householders are hard to locate, and others are reluctant to give out information about themselves to the government, are unfamiliar with the census, or speak no English.

Kenneth Prewitt, appointed by President Clinton as director of the Census Bureau, summarizes in this volume the bitter political controversy that surrounded Census 2000, but goes on to demonstrate that the quality of the count was exceptionally high. Statistical analyses show that Census 2000 was virtually complete in its count of whites, Asians, and Hispanics but missed about 1.8 percent of African Americans. Despite this racial gap in the accuracy of the results, Census 2000 was a great improvement over 1990, when almost 6 percent of blacks were missed. More so than any previous enumeration, Census 2000 fulfilled the hopes for representative government of those who drafted our Constitution.

Federal statistical reports in the 1990s had revealed favorable economic trends, especially following 1993. The census, with its long-form sample of one household in six, allows us to dig deeper and learn about local areas, specific groups, and detailed occupations or educational attainment categories. The economic analyses of Census 2000 data show that the 1990s were years of improvement for most such groups. Controlling for inflation, the typical adult in 2000 earned 15 percent more than the typical adult a decade earlier, meaning that he or she could purchase 15 percent more goods and services. This image of the 1990s as a decade of large SUVs, much larger new homes, spas, health clubs, and vacation centers had a basis in fact.

But as several authors show in this volume, a closer analysis reveals more uneven progress. Sheldon Danziger and Peter Gottschalk focus upon trends in economic inequality among Americans. Census 1990 found that 13 percent of the nation's total population and 18 percent of children under age 18 lived in households with incomes below the poverty line. The booming economy of the 1990s raised incomes and reduced

poverty, but the declines in the percentages of those living in poverty were modest. By 2000, this figure fell to 12 percent for the total population and 16 percent for children. Older Americans were a bit better off, as the poverty rate for those aged 65 and over fell from 13 to 10 percent.

William P. O'Hare describes trends in the welfare of children. For the most part, his findings give grounds for optimism: there is evidence of rises in income for families with children, sharp increases in the educational attainment of parents, less poverty, higher rates of school enrollment, and lower mortality rates. Some challenges for policymakers remain, since 37 percent of children living in single-parent families were impoverished. This is a substantial improvement from 1990, when 46 percent of such children were poor, but children living with just one parent remain at high risk of deprivation.

Poverty rates for older people are much lower on average than for children, thanks mainly to a relatively generous Social Security system that currently provides more than half the family income for the majority of households headed by older people. The sustainability of this system of public pensions (and public health insurance for those age 65 and over) is questioned by those who foresee a "generational storm" brought on by the retirement of the outsized baby boom cohorts; the older baby boomers will start retiring before the end of the current decade. Finding efficient and fair ways to head off generational conflict requires understanding the likely economic and family circumstances of the baby boomers. Mary Elizabeth Hughes and Angela M. O'Rand show how diversity of experiences has produced cohorts about which it is dangerous to generalize.

Dowell Myers also uses cohorts as an analytical framework to examine economic progress, for example, to document the rising proportion of American households that own their own homes rather than rent. Despite concerns about the educational and linguistic diversity of newcomers, the immigrant cohorts that Myers defines by decade of arrival do seem to catch up to their native-born counterparts in several indicators of material and social progress. Sustained economic growth has led to reduced unemployment rates for all groups, provided opportunities for a large flow of immigrants (18 million, or 14 percent, of the nation's 130 million jobs in 2000 were filled by immigrants), increased per capita hours of employment, especially for the highly educated, and raised the labor force participation rate of women, although not that of men.

Census 2000 confirmed huge differentials in population growth by race, a topic cogently described in chapters 12, 13, and 14, by Rogelio Saenz (for Hispanic Americans), by Michael A. Stoll (African Americans), and by Yu Xie and Kimberly A. Goyette (Asian Americans). Thanks to substantial immigration, during the 1990s the Hispanic population increased by at least 58 percent and the Asian population by 52 percent. By comparison, the groups whose growth was minimally influenced by migration from overseas grew slowly: the African American population increased by 16 percent, and the low-fertility non-Hispanic white population by just 3 percent. Census 2000 reported the Hispanic and black populations were nearly equal in size: 35.2 million of Spanish origin and 36.2 million African Americans. Subsequent data show that in the early years of the twenty-first century, the Hispanic population surpassed the black in size. A common theme emerging from these three chapters is that within-group differences in social, economic, and demographic conditions are wide and significant for policy. Since most data sources have insufficient samples to allow meaningful study of variation within these large racial and ethnic categories, these chapters nicely illustrate our contention that the census is indispensable.

No other data source can as effectively as the census reveal the composition of the immigration flow, a topic explored extensively by Mary M. Kritz and Douglas T. Gurak. Census data enable us to understand the diversity of immigrants: in their origins, in their educational attainments, and in the different gender composition of immigrant streams—some streams are predominantly male while others are gender-balanced. Many immigrants report great educational attainments while many others report few years of schooling. Among Asian immigrants, the highly educated greatly outnumber those with few years of education, whereas the majority of Mexican and Central American immigrants have little formal schooling.

Furthermore only the census documents the current Hispanification of the entire nation—the rapid spread of the Spanish-origin population from their traditional ports of entry to most all regions of the country. Who would have imagined, in 1960, that the Pennsylvania Dutch cities in the old Pretzel Belt would become centers for a Spanish-speaking population or that many smaller metropolises in the Carolinas and the Midwest would include thousands of Mexicans working at semiskilled as well as skilled jobs?

Frank D. Bean, Jennifer Lee, Jeanne Batalova, and Mark Leach continue the "who would have imagined?" theme so often provoked by immigration studies. They examine how immigration is affecting not only the racial and ethnic composition of the American population but also in all likelihood the very conception of what long-used categories mean. The 2000 census was the first in which respondents could identify themselves as belonging to more than one race. The published results will likely contribute to the trend they document, since Americans will become increasingly accustomed to fairly complex descriptions of a reality that was long described, literally, in terms of black and white. Sonya M. Tafoya, Hans Johnson, and Laura E. Hill study the mul-

tiracial population, supplementing the national-level data with detailed information from California.

California is particularly interesting as a test case, since we knew from Census Bureau surveys in the 1990s that many native-born Americans were leaving California and that their places were being taken by even more immigrants from Mexico, Latin America, and Asia. Those surveys were less successful in telling us about rapid population growth throughout the Rocky Mountain states, attributable in part to that exodus from California. And they provided little information about another crucial demographic phenomenon affecting very different parts of the country—sustained population loss. Continuing a decades-long trend, population was lost in the 1990s in a broad swath of contiguous counties stretching from the Appalachian mountains in the east, through much of the interior South, into the upper Midwest and then across the Great Plains including northern Texas. Census 1890 led the historian Frederick Turner to declare the American frontier closed, since most counties had population densities exceeding one per square mile. Census 2000 reports that quite a few counties now fall below that density. Will these losing counties be able to sustain health services, schools, good policing, fire protection, and civic improvements if fewer and fewer people are spread thinly across vast areas? Many of the older suburbs bordering central cities in the Northeast and Midwest also reported substantial population losses. Will they successfully adjust to the changes forced upon them as their populations—and tax revenues—decline by a quarter, a third, or more in the course of a couple of decades? Whereas there is an extensive planning and policy literature describing how communities might best cope with rapid population growth and the prosperity it often brings, almost nothing has been written about how cities and counties should cope with equally rapid population declines.

The 2000 census also gave us surprising information about population growth in some older central cities—places whose population peaked right after World War II, just before the suburban boom. Thanks to immigration linked to economic growth, New York's population set a record in 2000, and Chicago grew for the first time since the 1940s. Eight of the nation's ten largest cities in 1990 grew in the subsequent decade, Detroit and Philadelphia being the two exceptions.

The racial and ethnic groups studied in this volume participated in these national and metropolitan migration streams in different degrees. Residential segregation of the races declined somewhat overall, but remained high in national averages. Only the detailed decennial census gives the precise information needed to study residential segregation at the level of neighborhoods. The chapters on Latinos, blacks, and Asians each document the levels and trends of residential segregation as it affects each group. The residential segregation of blacks from whites declined in the 1990s, as it had for several previous decades, though it remained higher than most Americans realize. In southern and western metropolises, where most of the housing stock was built after the Open Housing Law prohibited racial discrimination in the housing market (1968), blacks and whites are only moderately segregated from each other. Segregation persists at much higher levels in the older metropolises of the Northeast and Midwest, but even in these places, black-white segregation decreased, by just a little in some metropolises but rapidly in others. Throughout the nation, the shift of African Americans from central cities to the suburbs that began in the 1980s accelerated in the 1990s.

Hispanic and Asian populations grew rapidly and their segregation from non-Hispanic whites increased modestly, but they remain much less segregated from non-Hispanic whites than are blacks. Meanwhile, Hispanics and Asians are just about as highly segregated from African Americans as whites are. In the melting pot of the nation's twenty-first-century metropolises, Asians and Hispanics are highly segregated from native-born African Americans.

The historic purpose of the census was to produce enumerations for the geographic distribution of political representation, and so the economic, social, and demographic data have always been keyed to location: where people live. The fundamental social group that can be studied with long-form census data is the co-residential family, anchored by the person who answers the questionnaire and other household members related to her or him and sharing household expenses. Of course, families have always been more complicated social realities than this statistically convenient unit would suggest. They form, dissolve, and re-form; familial obligations and caregiving relationships link people who may live in separate households. Still, as several of our chapters demonstrate, the census is an excellent source of data on the results of long-term changes in the family and how they are experienced by adults and children, women and men, newcomers and native-born. The 1990s saw some notable changes in the tempo of change. On all indicators, the rate of change was much slower in the 1990s than in previous decades, a theme developed in several chapters, especially by Daniel L. Lichter and Zhenchao Qian. Increases in the proportion of children living in mother-only families were small, the rate at which unmarried women bore children declined, and the trend toward higher divorce rates either tapered off or was reversed. Linked to this—as described in "Women, Men and Work," by Liana C. Sayer, Philip N. Cohen, and Lynne M. Casper, and "Gender Inequality at Work," by David A. Cotter, Joan M. Hermsen, and Reeve Vanneman—was a slowdown in several long-standing trends affecting work and family and gender roles. The labor-force participation rates of adult women

may have reached a peak, and the rate of convergence of men's and women's occupational roles—and pay—appears to have slowed.

Census 2000, documented one unexpected but persistent trend toward family stability: adult children are not leaving their parental home at the rate of their predecessors, or, if they leave, more of them quickly return. Of all persons aged twenty to twenty-four in 2000, one-third lived with one or both of their parents and, among those aged twenty-five to twenty-nine, one in seven lived with their father, their mother, or both. At no point in the previous 150 years documented by the decennial censuses had such a high proportion of those in their twenties and thirties lived with their parents.

The secular trend toward greater investments in education continued in the 1990s. The percentage of the nation's young adults, those aged twenty-five to twenty-nine, with a secondary school diploma or a General Educational Development test degree is very high, though significant racial differences remain: 96 percent of native-born Asians, 91 percent of native-born whites, 81 percent of African Americans, and 77 percent of Latinos born in this country have a high school diploma or equivalent. Census data suggest that between 60 and 66.6 percent of high school graduates are now enrolling in postsecondary education, be it a regular university, a community college, or a specialized training program. The challenge of minimizing dropout rates formerly focused upon high school students. Now it is time to turn attention to those many individuals who begin a postsecondary program but fail to complete it.

Less heralded is the continuing feminization of collegiate and professional education in the United States. Forty-nine percent of Americans aged eighteen to twenty-four were women, but the census reported that 55 percent of those working on bachelor's degrees were women. Of those with a four-year degree and studying for an advanced or professional degree, 54 percent were women. A continuation of current trends implies that within two decades the majority of new doctors, lawyers, and MBAs may be women. Several chapters in this volume provide information about the increasing numerical domination of college enrollment by women and its possible consequences with regard to the occupational achievements of women.

Finally, in a subtle fashion, Census 2000 introduced the American public to a new concept of race, one that differs significantly from past perceptions. Throughout our history, from the Colonial and antebellum eras to the Civil War and Reconstruction, on into the twentieth century and the civil rights struggle, race has been the nation's most divisive domestic issue. In the twentieth century, racial tension underlay both bloody urban riots and pivotal Supreme Court decisions, both those that strongly upheld white dominance and others that were the epitome of equity. Despite this divisive history of bitter disagreement, there was consensus that everyone in the United States could readily be classified into one of two racial groups because everyone was thought to have one primary racial identity. Since 1790, the federal statistical system gathered information on the basis of that assumption. But this assumption no longer can form a credible basis for American demographic statistics.

Increases in interracial marriages after the civil rights decade of the sixties led to a growing population of people with parents and grandparents from different races. A vibrant social movement sprang up in the 1990s demanding that the census include a new racial category: multiracial. The Census Bureau tested innovative questionnaires and the Office of Management and Budget received input from interested parties. Many traditional civil rights organizations feared that a multiracial category might minimize the size of their group; parents argued their children suffered psychological damage when they had to identify with either the race of their mother or the race of their father but not with both races.

For the first time, Census 2000 used a "check all that apply" question with regard to race. A person could check off just one race or as many as five: white; black or African American; American Indian or Alaska Native; Asian; Native Hawaiian or other Pacific Islander; and "some other race." Sonya Tafoya, Hans Johnson, and Laura Hill provide an authoritative summary of what happened when Americans were given the opportunity to identify with several races simultaneously. About one resident in forty marked two races, and about one-third of those people were multiracial because they marked "some other race" and then wrote a term designating a Spanish origin for their race such as Mexican or Dominican.

The census research reports in this volume will likely be the last in a century-long series. With backing from both political parties, the federal statistical system is being modernized and the system of data collection is being changed. Although there will be a head count in 2010 to determine how many congressional seats go to each state, the detailed decennial questionnaire to be answered by a large fraction of households has been eliminated, and this will obviate the need for the decennial research reports.

The merit of a decennial census with its detailed questions and huge sample size is its ability to tell us about small groups and the residents of local areas. But there is a tremendous offsetting disadvantage in this approach when it comes to the generation of useful data: the census is taken only once a decade, so we have to wait ten years to see what changes have occurred, and why.

Instead, the Census Bureau is now implementing the American Community Survey, a large representative

sample to be selected each year for interviews that is comparable to a rolling census. This ongoing survey will provide fresh information about the nation, states, and large cities and metropolises every year. The sample size is so large that we will be able to study small groups such as recent immigrants from Africa or women employed in the skilled crafts trades more frequently than once a decade. For smaller geographic areas or relatively small groups, data can be aggregated on a rolling basis for periods of three years or five years (see appendix to this introduction).

As we noted at the outset, Thomas Jefferson was the cabinet secretary responsible for the daunting task of conducting a census of the scattered inhabitants of a vast, newly independent country. He was also a social and natural scientist of great talent and wide interests, and his *Notes on the State of Virginia* covered everything from human population growth to the health of towns and the size of animal fossils. We like to think that he would have enjoyed the eclectic scientific conversation in the chapters that follow, and shared our admiration for his successors at the Census Bureau who followed through on the daunting task he set in train.

## Appendix: The American Community Survey

The chapters in this volume rely heavily on supplementary questions to the decennial census (called the "long form," though it is hardly long for a household survey) sent to one-sixth of households in 2000. This design principle for the census—a few core questions answered by every household and a more extensive list answered by a sample—was introduced in 1940 and was used in all subsequent enumerations up to Census 2000.

After each of these censuses, the Russell Sage Foundation commissioned monographs and the Population Reference Bureau published nontechnical reports for wide audiences, in both cases drawing heavily on analyses of sample data. The present volume might be the last flowering of these parallel traditions, for the Census Bureau plans to discontinue use of the sample questionnaire for the 2010 decennial census. Instead, it will conduct only the basic short-form census in 2010, which will produce counts of the population by age, sex, race, and ethnicity (the latter two characteristics are needed to monitor compliance with voting rights legislation), and housing counts. The more detailed information on demographic, economic, and housing characteristics formerly produced by the Census sample questionnaire will be collected separately on a continuous basis under the American Community Survey (ACS).

The ACS is a continuous survey of approximately 3 million households per year, selected at random in every county, American Indian or Alaskan Native area, and Hawaiian homeland in the United States, and Puerto Rico. It uses an instrument very similar to the sample form used in the 2000 census. A test program for the ACS began in 1996, eventually including thirty-one test sites around the country. In 2000, 2001, and 2002, national-level tests collected data from about 750,000 households each year. Full implementation began in 2003.

The reason for this changeover that data users will most readily understand is the need for continuously updated information about the nation's population. Proponents of the ACS often use a metaphor from photography: the traditional decennial census gives us a snapshot of the nation once every ten years, whereas the ACS will provide a continuous video (or perhaps a webcam) showing us how social, demographic, and economic characteristics change almost in real time. The ACS design calls for a smaller number of households in the sample in any one year than the census questionnaire had, but sample sizes for estimates pertaining to small areas or small subpopulations will be brought up to acceptable levels for statistical purposes by means of pooling data collected over a period of some years.

Estimates based on ACS data for geographic units with populations of 65,000 were released beginning in 2004. Estimates for places with populations of 20,000 to 65,000, based on three years of ACS data from 2003, 2004, and 2005, will be released in 2006. For places with populations smaller than 20,000, estimates based on five years of pooled data will begin to appear in 2008. The pooling of data is required both to produce estimates of acceptable precision and to protect the confidentiality of respondents.

For example, the 2003 ACS data can be used to produce estimates for the population of Macomb County, Michigan (population over 805,000 in 2003). Based on one year of data, the Census Bureau estimates that the number of county residents over age 5 who speak a language other than English at home was 101,645. To show the variability in any estimate based on a sample rather than a complete count, the Bureau also publishes lower- and upper-bound estimates, corresponding to a statistical 90-percent confidence interval: between 89,357 and 113,933 Macomb County residents speak a language other than English at home. For the city of Warren in Macomb County (which had 138,247 residents according to the 2000 census), estimates centered on 2004 will be the first available, based on data collected during the three years from 2003 to 2005. The city of New Baltimore, Michigan, also in Macomb County, which had a population of 7,405 in the 2000 census, will require 5 years of ACS data collection to produce a sample size acceptable for any estimate; under current plans, these will be published in 2008.

The value of continuous measurement is best understood when we consider indicators that have recently passed inflection points, points in time when long-standing trends slow or reverse. A good example is the proportion of children living in single-parent households. As William O'Hare points out (this volume, chap. 7, fig. 2), we know from Current Population Survey (CPS) data that at the national level, the percentage of children living in single-parent homes peaked in the mid-1990s and has declined since then. But this percentage was still higher in the 2000 census than in the 1990 census—the downward trajectory had not taken it back to the 1990 level. The CPS sample sizes are insufficient for small areas and small groups to produce reasonable year-to-year estimates of this important indicator. With ACS continuous measurement, we will not need to wait until 2010 long-form data are published in 2012 or so to find out whether small subpopulations such as that of Tompkins County, New York, or Chinese Americans nationally, are part of this general trend: We will have updated estimates throughout the decade to tell us whether their paths diverge.

Less apparent to users, but vitally important to those responsible for producing accurate data, is the managerial efficiency gained by the switch to continuous operations. To gear up once every ten years to implement a census, then virtually to dismantle the field operation, only to repeat the cycle after a hiatus, is a massive undertaking, as Kenneth Prewitt shows clearly in his chapter. Hiring, training, and supervising hundreds of thousands of temporary interviewers, address finders, and data processing clerks for each operation, only to let them go again after a few months is a needlessly costly way to gather information about the population. The continuous nature of the ACS makes it possible for the Census Bureau to hire people for all these jobs and give them training that will pay off for a longer term. It also allows highly trained workers to treat ACS work as part of a career rather than a temporary job, so that they invest in the development of their skills and perhaps advance to supervisory or managerial positions, having gained a solid grounding in the frontline work of the organization.

The ACS uses both computer-assisted telephone interviewing and computer-assisted personal interviewing to follow up the initial mailing of questionnaires to sample households. The ability of trained interviewers to concentrate on nonresponding households should lower "nonresponse error," such as items or whole questionnaires left blank, or inaccurate answers given because questions were misunderstood. Census Bureau analysts and outside researchers evaluated data quality by comparing data from the Census 2000 sample with data from a version of the ACS administered nationwide, and the ACS-type data generally showed higher quality. For example, the ACS-type data had lower rates of imputed data (for skipped items or skipped persons) than the Census data[1] and much higher rates of intelligible responses to problematic items such as the question on ancestry.[2]

In the past, the Census Bureau always had a fairly short window of time in which to get the questionnaires and methods tested and refined for the decennial census. If an error or anomaly was not detected until after the data had been collected and analyzed, it was too late to make any changes and demographers had to wait for another ten years. Questionnaire items appearing late in the census preparations were particularly subject to this uncertainty. For example, the first question on Hispanic ethnicity was added to the 1970 questionnaire at the last minute, with little time taken for testing whether respondents shared an understanding of what was meant by the term "Hispanic." Similarly, the decision to include the question about grandparents caring for grandchildren, this time motivated by congressional interest, was taken late in the planning for the 2000 census. The ACS can readily be used to pretest innovative questions. The ACS schedule is also more forgiving—an item that seems not to work as intended can be replaced without a decade of delay. The ACS questions on disability, for example, have recently been modified to fit better the needs of analysts and planners.

Nothing is perfect, and there are some drawbacks to the change. One is the loss of simplicity inherent in using rolling averages of different periodicity to produce estimates. The clarity of a statement like "This is the picture as of April 1, 2000, everywhere in the nation" is lost when one compares, for example, a 2004 estimate based on three years of data for the large city of Detroit with an estimate based on three years of data for the small but contiguous city of Hamtramck. The different periodicity matters most when one or both of the geographic regions or small populations is changing rapidly—but that is also exactly the circumstance in which having to rely on a snapshot from some years ago is unsatisfying.

This drawback may cure itself over time. People will get used to moving-average estimates from the census, just as they will get used to multiple-choice racial data. The ACS is not the only rolling survey. Unemployment estimates from the Current Population Survey, for example, can be produced every month for states and large metropolitan areas, but for relatively small occupations or groups of workers they must be aggregated over different time periods. Another example: The National Health and Nutrition Examination Survey used to be fielded every decade or so, but it is now collected continuously. National obesity trends can be tracked on a quarterly basis, but valid estimates for rarer conditions require pooling of data from longer time periods.

Calculating standard errors for estimates based on smoothed time series can be difficult. But those suffi-

ciently numerate to worry about standard errors are also likely to be able to use the approximate standard errors provided on the Census Bureau website.

Another concern, one that time and familiarity may not cure so easily, is with the geographic hierarchy that the ACS design uses. When estimates for places of all sizes were released more or less at once, aggregating up to "user-defined geographies" was relatively straightforward. For example, the Appalachian region as defined by the Appalachian Regional Commission currently includes 410 counties in thirteen states and eight Virginia cities (which are not included in counties in Virginia). Census 2000 estimates based on long-form data for these data all appeared around the same time. Anyone with spreadsheet software could produce a weighted average estimate for the whole region and subregions, precisely centered on April 1, 2000, even though no estimates for Appalachia appeared in Census Bureau publications.

In the new ACS era, though, an analyst wanting an estimate for, say, the proportion of college graduates in the adult population in northern Appalachia, would have to average an estimate based on one year of data for Allegheny County, Pennsylvania (a populous county that includes Pittsburgh); estimates based on three years of data centered on the same date for most Appalachian counties, and estimates based on five years of data centered on that date for the smallest counties. This problem may require long footnotes in future reports—though once again, the problem is most acute in the situation of rapid change and wide variation, precisely the situation in which extrapolating trends from the last decennial census is also least satisfactory. Trading some simplicity for greater frequency is likely to look like a good deal to most data users.

In 1937, Guy Irving Burch, the founding president of the Population Reference Bureau, published a discursive examination of the demographic history and prospects of the United States.[3] Many of his topics were remarkably similar to those discussed in this volume—an aging population, rural outmigration, even the apparent diminution of the native-born population of California to which we alluded earlier. In many ways he was premature—he foresaw neither the baby boom, which was so well chronicled by Mary Elizabeth Hughes and Angela O'Rand in this volume, nor the great postwar wave of immigration, analyzed by several of our authors. He titled his articles "Headed for the Last Census?" a provocative allusion to depopulation and decline that he detected in so many features of American demography. Nearly seventy years later we can amend his rhetorical question. We may have seen the last *bifurcated* census. The new model of a basic decennial census supplemented by rich continuous information from the American Community Survey looks, on balance, like an improvement.

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# PART I

## THE CENSUS

# Politics and Science in Census Taking

*By Kenneth Prewitt*

## Government and Democracy, Politics and Science

Mention the word "census," and what comes to mind is a dull counting project that the government carries out from time to time. Ask why a census is taken, and most Americans will vaguely reply that the government seems to need all these numbers. A few might add that it has something to do with who goes to Congress and even with how federal monies are spent.

Not many Americans know that the census is required by the Constitution and that since 1787 it has protected basic democratic principles. Many will be surprised to hear that there is an intense politics of census taking and that in recent times these politics have turned sharply partisan. Americans will be equally surprised to learn that the census is the nation's longest continuous scientific project. Dull and technical though it may sound, the census is a drama at the very center of our political life.

This drama has four subplots: providing the government a read on society, insisting that democratic principles be honored, determining political winners and losers, and applying statistical science on a scale nowhere else matched. In the best of times, these four subplots flow comfortably together. Sometimes, though, they don't, creating tension and confusion. Such was the case in the 2000 Census. Government goals were pulled in different directions. Principles of democratic fairness were in jeopardy. Issues of racial justice were contested. The politics were intense and partisan. Census science was vigorously debated, even attacked as unconstitutional. The Supreme Court had to weigh in, twice in two years. This report is about these conflicts, using them to show how policymaking, democratic principles, partisan politics, and science come together in the census.

We briefly introduce each of the subplots before subsequent sections reveal how, when, and why they link in a single narrative.

### Guiding Government

In the fourth book of the Old Testament, aptly titled Numbers, God tells Moses: "Take ye the sum of all the congregation of the children of Israel, after their families, with the number of their names, every male ... from twenty years old and upward." Moses is being told to take a census of those "able to go forth to war." There is also a census in the New Testament, central to the nativity story that brought Mary and Joseph to Bethlehem, where they were enumerated in order to be taxed. These biblical stories describe ancient practices in which census taking was used by the state to protect the security of its territory and its citizens and to raise revenue. Military conscription or taxation, and often both, are linked with census taking from the beginning of recorded history.

Think of the census as a map—a map of the society rather than of the territory. Both maps and censuses tell us what is out there. An ambitious 17th century annual census is proposed to France's Louis XIV in these terms:

> *"Would it not be a great satisfaction to the king to know at a designated moment every year the number of his subjects, in total and by region, with all the resources, wealth and poverty of each place? ... [Would it not be] a useful and necessary pleasure for him to be able, in his own office, to review in an hour's time the present and past condition of a great realm of which he is the head, and be able himself to know with certitude in what consists his grandeur, his wealth, and his strengths?"*[1]

The French king did not get this ambitious census, but modern governments do. In the United States, the 2000 Census form asked questions ranging from veteran's status to place of birth, from age and race to education and ancestry, from distance traveled to work to the costs paid for home heating fuel.

These are not matters of idle curiosity. Every question asked in the U.S. census connects to a specific government program or purpose: locating medical services for veterans, enforcing the Voting Rights Act, monitor-

**KENNETH PREWITT** first saw census taking up close when, in the 1960 Census, he was a crew leader for large sections of Boston's Back Bay. Then a student at the Harvard Divinity School, he hired Harvard MBA students as enumerators. They proved reasonably competent, earning him a promotion with citywide responsibilities for the enumeration of the transient hotel population. Nearly four decades later, he again was sworn to census duty—this time as director of the Census Bureau. He filled the slow years in between as a professor (mostly University of Chicago), director of NORC, senior vice president of the Rockefeller Foundation, and president of the Social Science Research Council. He is currently the Carnegie Professor of Public Affairs, School of International and Public Affairs, Columbia University.

ing the changing skill level of the work force, planning transportation networks, designing energy policies.

Imagine that you had the task of targeting educational support to children in poverty or medical services to physically disabled veterans. The size and geographic location of such specific subpopulations are provided by the census and its many derivative surveys. Every year, census numbers help determine where approximately $200 billion in federal funds are spent for welfare, education, health, transportation, and dozens of other programs.[2] To pay for these programs, government turns to the census to assess the size, wealth, age structure, and employment patterns of the tax-paying population and designs a taxation system accordingly.

Think of the census as a huge report to the government, portraying what is out there so that laws and programs can be anchored in information that is systematic, comprehensive, current, and objective.

So far, so good, but there is more. Knowing what is out there can lead to a variety of policies, not all of them benign. Governments around the world, for example, generally want to control who enters or leaves their country. In addition to border controls, visas, and the like, they use immigration statistics to determine how many of what kinds of people from what regions of the world qualify to enter the country. A government may also want to influence the overall size of the population, and will use fertility rates and statistics on the age structure of the population to design family planning policies.

The boundary between routine population policy and abusive exercise of power by a government is easily breached, and census history offers instances of the latter. Fertility regulation and forced sterilization in China and India come to mind. Population relocation is another example, and the United States provides a dismal illustration with the internment of Japanese Americans at the beginning of World War II. In this instance, census data helped the government quickly round up large numbers of citizens of Japanese origin, especially on the West Coast, who were said to pose security risks and thus were isolated in guarded camps.

In its darkest misuse, census information has facilitated genocides. Small-area tabulation of a Dutch census of religions taken in 1930 was later used in dot maps of Amsterdam to indicate density of the Jewish population, making it easier for German occupation forces to deport them. The 1939 German census went further, being used to identify specific Jews and Gypsies targeted for concentration camps.

These perversions are few in comparison with the majority of cases where the public gains from fairness and policy efficiency because a census draws an accurate portrait of the population. But like any powerful instrument of government, a census can be used for ill as well as for good.

## Insisting That Democracy Be Fair

America had its first national census in 1790, for a purpose that was new to census taking. America's Constitution took on the historically unprecedented task of establishing a government based on the popular will. Perplexing questions faced the writers of the Constitution. What theory of political representation would work for the new republic? How could this republic avoid the seductive temptation of empire?

### Allocating Representatives

The Constitution establishes a government based on democratic representation—a few citizens are elected by popular vote to represent the will of the many. This elementary principle of democracy leads to a practical question: What groupings of the population will elect representatives? One possibility is an at-large election in which a long list of candidates is presented to voters across the country, and candidates with the most votes then represent the entire population. But the nation's founders were seeking a way to bring elected representatives closer to the people being represented—that is, elections in which specified groupings of voters would each select their own representative. What principle might define these groupings? The Constitution writers could have divided the population occupationally—farmers, manufacturers, tradesmen, professionals—with each occupation electing its representatives. Or perhaps religious groupings—Anglicans, Congregationalists, Quakers, Methodists—could have served as the basis for representation. Such alternatives were not seriously considered.

Political representation in America is based on territory. Representatives are elected by voters from a politically defined area. This was the principle most familiar to the Constitution writers when they gathered in Philadelphia. In the decade between independence and the Constitutional Convention, each of the 13 original states had its own political identity, rooted in its economy, its religious tradition, its size, and how it had been governed during the colonial period. Following independence the country was governed under the Articles of Confederation, which gave one vote to each state in determining broad policy for the country while also accepting that most policy—including taxation, educa-

tion, and criminal justice—would be made at the state level. This allowed the Southern states to continue their plantation economy based on slave labor while the Northern states could turn to small-scale farming and commerce. It allowed for differences in religion and cultural outlook; for instance, Puritanical Calvinists concentrated in Massachusetts, Quakers in Pennsylvania, Catholics in Maryland, and Anglicans in Virginia.

The delegates to the Constitutional Convention in 1787 were sent by their respective state legislatures, mostly composed of leaders fiercely protective of state interests. The delegates to Philadelphia knew that a stronger federal constitution to replace the weak Articles of Confederation would be politically acceptable only if state interests were clearly recognized. The result was political representation based on territory: Voters in each of the 13 founding states would elect their representatives to represent their interests in the new Congress.

Immediately there was an issue. How many representatives should be elected from each state? The smaller states wanted every state to have equal voting power. The more populous states cried "unfair," arguing that power over national policy should be proportionate to the size of the state's population. In perhaps the most important compromise of the Constitutional Convention, this sharp controversy was sidestepped by creating a two-house Congress. In the Senate, each state has equal voting power; in the House of Representatives, voting power is proportionate to the population of the state.

The first Congress would have a total of 105 House members, with large states getting more members than small states. This posed the question of how to be fair in determining the exact number of members each state would get. The first step was to take a census to establish the share of the total population that lived in each of the 13 states. The nation's first census took place in 1790, and with the results in hand, an allocation formula written by Thomas Jefferson fixed the number of seats each state would have in the House of Representatives, ranging from one for Delaware, the least populous state, to 22 for Virginia, the most populous.

These differences in state-by-state power in the House put firmly in place the fundamental principle that representation is based on residency and is proportionate to population size. This principle has guided American democracy for more than 200 years. But if the 1790 Census solved the initial problem of democratic representation, why did the Constitution require that a census be taken every 10 years?

### Admitting New States to the Union

The boundaries of the United States were not fixed by the War for Independence, which resolved only that 13 British colonies were free to govern themselves. Nor were the boundaries fixed by the Constitution, which resolved that the 13 original states would come together in a federal government. Not at all clear was the status of Americans who lived outside the boundaries of these 13 states.

This uncertainty had to be addressed. Already restless people were leaving the 13 states, crossing the Appalachian mountain range, spreading into the Ohio Valley and down the Mississippi to the Gulf of Mexico. Among the drafters of the Constitution were visionaries who imagined a nation that might one day reach across the sparsely settled continent even to the Pacific Ocean. Territorial expansion was much on the mind of the new nation.

And what was to be the political status of these Western territories—so rich in land, minerals, furs, and forests? They could be annexed as colonies, and their resources exploited for the benefit of the Eastern Seaboard states. Alternatively, the Western territories could be encouraged to form themselves as independent states that would join the Union on equal footing with the original 13. Principle won out over economic expediency, as a majority of the framers felt that an Eastern Seaboard empire with Western colonies violated the principles for which they had waged the War for Independence. Empire was rejected in favor of allowing the new territories, as quickly as they were settled, to apply for statehood with powers and responsibilities equal to the original states. The key phrase is "as quickly as they were settled"; a decennial census was needed to determine when a territory was sufficiently populated to become a state.

The difficult issues of designing a democracy were hardly all resolved at the Constitutional Convention. American political history is the ongoing story of democratic principles evolving in response to conditions unforeseeable in 1787. Were we to recount that entire history, we would see that the census was often central. Our subject, however, is primarily the recent period, and especially how democratic principles were invoked in arguments about the census in 2000.

## Determining Winners and Losers

The size, geographic distribution, and characteristics of the population are linked to power, to money, to civil rights. With such high stakes, there will be sharply competing interests in census results.

In the late 20th century, a vigorous political debate emerged about how census taking should address an old problem, the difficulty of counting everyone in the census. The problem was not new: After the census of 1790, the first presidential veto in American history set aside the census apportionment formula prepared by Alexander Hamilton, which favored commercial and manufacturing interests, opening the way for Thomas Jefferson to propose a formula that benefited agricultural interests. Two hundred years later, census methods were being debated before the Supreme Court in a case brought by congressional Republicans against the Democratic president, Bill Clinton. The issue again was how competing interests could be advanced by population numbers.

A census is unfair when some areas or groups are more fully counted than others, because the less well counted do not get their rightful share of benefits—such as legislative seats or public monies. If racial minorities are among the less-well-counted groups, as they are in the United States, issues of social justice and equality are joined to the census. There can be no account of America's census without looking at the

## Major Phases of the Census

The old saw that the devil is in the details is especially true of census taking. This note sets out the major phases of the U.S. census as practiced in 2000. Readers will find it helpful to refer to this outline as different phases of the census are discussed in subsequent sections.

**Step 1-Construction of an Address File.** The U.S. census is based on residency. It starts with a master address file that is assembled from post office delivery addresses; block-by-block canvassing by census workers; the updating of addresses by local governments, adding new construction; and the filtering out of duplicate addresses. The master address file, of approximately 120 million addresses, is the control against which all subsequent census steps unfold. If it is incomplete, the census is incomplete. If it has unrecognized duplicates, the census will have duplicates.

**Step 2-Form Delivery.** A census form is delivered either by mail (the vast majority) or by hand (where there is no residential mail delivery) to every address, with instructions to return the form by mail. This is the critical mail-out/mail-back phase of the census. Lack of cooperation—that is, low levels of mailing the census form back—drives the costs of the census up and the quality of census data down. There are two census forms. The seven questions on the short form are asked of every household. An additional 47 questions are asked of a sample of one in six households on what is known as the long form.

**Step 3-Appeals for Public Cooperation.** Auxiliary operations are closely associated with the mail-out/mail-back phase—an advertising campaign, help from organizations that partner with the Census Bureau, mobilization by local leaders, and heavy media coverage—all designed to increase mail response and cooperation with follow-up operations.

**Step 4-Nonresponse Follow-up.** Not every form is mailed back, requiring several hundred thousand census takers, often called enumerators, to follow up with nonresponding households. Approximately one-third of the addresses on the master address file had to be contacted in this labor-intensive way in 2000.

**Step 5-Quality Control.** An independent sample of the population was used to estimate the rate of undercounting or overcounting of specific subpopulations, such as renters, children, or racial minorities. This Accuracy and Coverage Evaluation (A.C.E.) of Census 2000 was by far the most ambitious part of the quality-control operation. Others focused on checking census coverage—who was missed, who was erroneously included—and on data quality.

**Step 6-Data Capture.** Census answers—mostly tick marks in survey-form boxes—are converted to electronic records for tabulation and reporting. In Census 2000, technically sophisticated optical scanning methods were successfully used in digital data capture.

**Step 7-Dissemination of Results.** The first instance of announcing and disseminating census results is the all-important announcement of state populations, which determine the allocation of seats in the House of Representatives. By law, this census result is delivered to the president, who then transmits it to the Congress within nine months of census day (April 1 since 1930). The next major census product, due three months later, is the redistricting data file detailing the age, gender, and ethnic-racial breakdown of the population to the block level. This census product is used to redraw the geographic boundaries of congressional districts, state legislative districts, and county and city election areas to reflect population changes since the previous census. Subsequent and much more detailed census products are released as soon as feasible and are posted on the Census Bureau website.

**Step 8-Evaluation and Planning.** Even as one census is underway, its procedures are being evaluated with an eye to designing the next census. Studies embedded in one census point to improvements for the next. Did the advertising campaign work as intended? Did asking local governments to update the address file solve more address problems than it created? Could absolute confidentiality be protected if people filled out the form online? Could greater use of administrative records, such as school enrollment, improve coverage? These and dozens of other issues were part of Census 2000 evaluation studies. Studying such questions during the census process is far preferable to conducting less realistic studies outside the census environment. In this regard, conducting a census is like sending a spaceship to Mars. All the tests, plans, and experiments cannot substitute for actually doing it.

politics of numbers—how many, how many where, how many of what groups.

## Advancing Science

We have not said much about census taking itself—how the census is conducted (see "Major Phases of the Census") and, more important, how accurate it is. It is not easy to enumerate a population that is mobile, busy, and easily distracted; that is often indifferent to its civic duties; that is sometimes resentful toward government and not inclined to be cooperative; that speaks dozens of languages and is spread from the edge of the Bering Sea to the tip of Florida; and that is mostly ignorant of what is at stake in the census numbers.

A few dozen U.S. marshals carried out the first census. The most recent census involved nearly a million employees, making it the largest peacetime mobilization in American history. Census taking could not have kept pace with the enormous changes in the country and the population over the last two centuries without itself changing. As a vast scientific and technical enterprise, each census works to correct the flaws and build on the accomplishments of the one that preceded it, making it the nation's longest continuous scientific project.

The Census Bureau has been home to many scientific and technical accomplishments. Modern computing traces its origins to the late 19th century, when a bureau employee, Herman Hollerith, invented a primitive punch-card device and then created the first automated data tabulation system. (He later helped found IBM.) The Census Bureau was the first government agency to use a mainframe computer. In the 1930s the bureau used modern sampling theory for large-scale surveys, paving the way for today's vast polling industry. The science brought to bear in the 2000 Census involved mathematical statisticians, geographers, demographers, psychometricians, sampling theorists, information specialists, and computer scientists, all joining in the demanding task of accurately counting the population.

Accuracy is a technical and scientific matter, but in the case of the census it is also a term tangled up with the larger issues of governing and democracy. Power is allocated, funds are distributed, and civil rights guaranteed on the basis of census numbers. But what if the numbers are inaccurate? For better or for worse, census accuracy is where the politics and the science collide, and how the resulting conflicts are resolved carries into government policy and democratic practice.

# Census Accuracy Proves Elusive

On Dec. 28, 2000, I announced the first results from Census 2000 to journalists thronging the National Press Club in Washington. I reported that America's new, official population numbered 281,421,906, commenting that "Never have we been so diverse; never have we been so many; never have we been so carefully measured." Below we will consider what lay behind the first two claims; first let us focus on the phrase "never so carefully measured." The wording was itself carefully chosen. I would have been much happier to say, "Never have we been so accurately counted." But that claim could not then or even now be defended. "Accuracy" is not an adjective easily attached to the census.

To begin with, there are two types of census accuracy: population counts and population characteristics. The latter, which will not get much attention in this report, refers to whether, for example, income, education, or race has been accurately recorded in census statistics. Complete accuracy is unlikely. Questions are not always understood the way the Census Bureau intended them. We ask for your race, meaning African American, Asian, and so forth, and you answer "American." Misunderstanding is one problem. Deliberate misinformation is another, often given in response to the income question. Errors also occur in transferring the answer on the census form to a digitized record or in the process of aggregating answers before they are published. Even the most rigorous quality control procedures—and the bureau applies dozens of them—cannot prevent some errors from slipping into the census record.

Accuracy of population characteristics is of great importance, and the Census Bureau quietly focuses on doing this part of its task well. It is not a task that gets much public notice, certainly not in comparison with the much more hotly debated issue of accuracy of population counts. In this and subsequent sections, the term "census accuracy" is about how closely the census estimates the true size of the population of particular geographic areas and of subpopulations.

## Numerical Accuracy

The 2000 Census counted 281,421,906 people resident in the United States on April 1. The 1790 Census also reported an exact population—3,929,214. Thomas Jefferson, who as secretary of state oversaw this first census, delivered the results to President George Washington. The president was not pleased.

*Box 1*

**GEORGE WASHINGTON ON THE FIRST CENSUS**

"Returns of the Census have already been made from several of the States and a tolerably just estimate has been formed now in others, by which it appears that we shall hardly reach four millions; but one thing is certain: our real numbers will exceed, greatly, the official returns of them; because the religious scruples of some would not allow them to give in their lists; the fear of others that it was intended as the foundation of a tax induced them to conceal or diminish theirs; and thro' the indolence of the people and the negligence of many of the Officers, numbers are omitted."

*The Writings of George Washington*, John C. Fitzpatrick, ed., vol. 31 (Washington, DC: Government Printing Office, 1939): 329.

## Historical Significance

Washington had expected a population about 5 percent higher and blamed the "inaccuracy" on avoidance by some residents as well as on negligence by those responsible for taking the census. Uncooperativeness and flaws in the census administration had produced a population count that underestimated the true size of the nation's population (see Box 1).

This was not an idle irritation on Washington's part. The new nation's first census, he knew, would be of great interest in Europe. The president worried that a small population would tempt America's European enemies to military action. He no doubt recalled that population numbers had given confidence to the country during the War for Independence, or at least had been used as wartime propaganda. Revolutionary leaders routinely cited demographic data—based on a mixture of colonial censuses, guesses, and wishful thinking—to assert that the infant nation was numerically strong and could if necessary "withstand war with England for many years."[3]

The diplomat John Adams later took up this revolutionary theme. In the early years after independence, he warned England that Americans "are not to be trifled with. Their numbers have increased fifty percent since 1774." A people that can multiply at this rate, wrote Adams, "will in twenty years more be too respectable to want friends."[4] Thomas Jefferson, his fellow diplomat in Paris, added an economic argument. The rapid growth of the American people offers an important market for French goods, he claimed. "For every article of the productions and manufacturers of [France] then, which can be introduced into the habit [of the United States], the demand will double every twenty or twenty-five years."[5]

The steady growth of the young nation's population also mattered for those who saw the American experiment in self-government as a test of Enlightenment doctrine. The nation's leaders were influenced by the French political philosopher Rousseau, who wrote that the most certain sign of the prosperity of a government "is the number and increase of population."[6] Political thinking in the young America held that a growing population "was both a product of and a tribute to the blessings which America enjoyed—blessings not only of Nature, but of government, economy, and society."[7] A flourishing population was a comforting sign that the new form of Republican government was working, especially important to the early leaders who had risked much in defending an untried Constitution.

If the nation's leaders were disappointed when the 1790 Census count was lower than expected, it was a disappointment soon set aside. Rapid population growth quickly became America's demographic story (see Figure 1). The 19th-century population story combines fertility, immigration, imperial wars, and territorial purchase, with immigration being the major driver.

Immigration was substantial across the 19th century and into the first decades of the 20th. To farm, mine, and forest the new continental nation pulled in immigrants from every corner of Europe as well as from the Far East. Late 19th-century industrialization required factory workers at a scale greater than natural fertility could provide. Thomas Jefferson's vision of a nation of farmers spreading across the Western territory and Alexander Hamilton's competing vision of a manufacturing nation combined to ensure a permissive immigration policy that explains much of the growth from a nation of 4 million at the first census to one that by the 1920 Census exceeded 100 million.

Population growth surged again in the late 20th century because of new immigration policies adopted in the 1960s; this growth shows every sign of continuing in the 21st. Current estimates indicate that the population will number close to 400 million by midcentury. The old reasons for paying attention to population growth remain relevant. A growing population signals a strong country, one conducive to fertility and attractive to immigrants.

## Contemporary Concerns

Because of the importance of population size, the accuracy of the census count has always attracted political attention. It did so in 2000, in terms not so different from the concerns voiced by President Washington two centuries earlier. Communities saw economic gain in a growing population; federal and state funds along with airports, shopping malls, and other enterprises go to growing parts of the country. After the 2000 Census,

several hundred jurisdictions around the country filed complaints that their census count was too low. None complained that it was too high. In the little town of Patterson, La., the mayor claimed that the census missed 1,699 people. He worried that his town would lose $1.4 million a year in programs such as the state's tobacco tax rebate, which are distributed based on community size. But, said the mayor, "Money's not the only thing at stake." Echoing President Washington, though probably unwittingly, he continued: "Pride in the community is involved. I want people to really know how big we are. We aren't just a little burgh in south Louisiana."[8]

Because there are significant rewards linked to population size, disappointment is built into census taking. No city or state is satisfied with its count and would rather blame the census than accept that other places hold more attractions to a population always on the move. Complaints are adjudicated through a special program initiated by the Census Bureau, called Count Question Resolution, which after the 2000 Census reviewed 461 complaints (or about 1 percent of the 39,000 civil jurisdictions in the country). Most problems can be traced to faulty addresses. For example, a prison gets all of its mail at a post office box that may be some distance away, and it is a simple matter to reallocate this prison population to its correct location. Sometimes, however, there is no evidence of a mistake, and the community has to accept the Census Bureau's numbers. Among my least pleasant moments as Census director were angry phone calls from mayors about numbers we had released. One mayor, from a large Northeastern city, shouted over the phone that I was "killing" his city with a number he knew to be flawed. He demanded that I fly to his city the next day, issue a corrected number, and publicly apologize. (We checked our numbers; they were sound; they were not changed.)

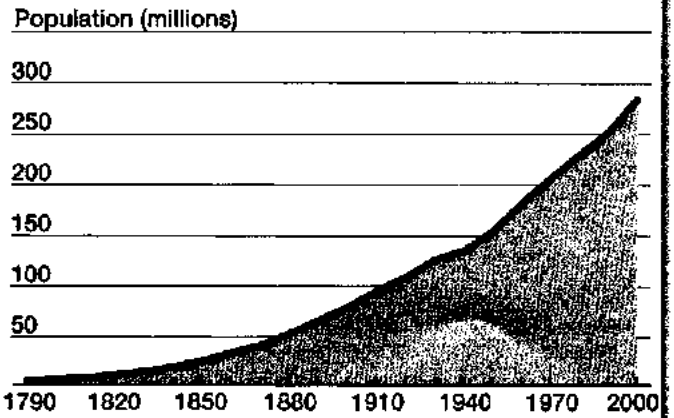
Numerical accuracy in census taking is a challenge, but not half as difficult as achieving distributional accuracy.

## Distributional Accuracy

Whereas numerical accuracy points to the overall census count, distributional accuracy points to the proportional distribution of the population by geography or subpopulation groups. This matters when benefits from a fixed resource are allocated in proportion to population shares.

A census can be numerically inaccurate but still achieve distributional accuracy. If, for example, the census misses the same percentage of the population in every state, then each state will still get the number of congressional representatives it would had the census counted 100 percent of the population. It is only when the percentage of errors differs from one state to the next that there is distributional inaccuracy. The simple illustration in Table 1 shows two censuses that miss the same overall percent of the population, but in one census those missed are proportionately higher in State A than State B. This second census then awards to State B a higher share of the final census count, and shares matter when a fixed pie is being sliced.

*Figure 1*
**U.S. Resident Population, Decennial Censuses, 1790–2000**




Sources: U.S. Census Bureau (www.census.gov/population/censusdata/table-2.pdf, and www.census.gov/main/www/cen2000.html, accessed Sept. 30, 2003).

The journalists who packed the National Press Club in December 2000 came because there were going to be losers and winners in the population-determined allocation of seats in the House of Representatives. When the numbers were announced, 10 states lost congressional seats, with New York and Pennsylvania each losing two. Four fast-growing states—Arizona, Florida, Georgia, and Texas—gained two seats, and four other states each gained one seat. Dramatically and instantly, the census had reduced the political power of the Northern industrial states and increased political power in the South and West. More than legislative power is at stake. In the Electoral College, which technically elects the president of the United States, each state's voting strength is based on the size of its congressional delegation—that is, its two senators plus its seats in the House of Representatives, with the latter determined by census results.

The allocation of seats based on rates of population growth or decline is called reapportionment. This term,

*Table 1*

**DISTRIBUTIONAL ACCURACY ILLUSTRATED**

| | Census misses 10% of the population but is distributionally accurate | |
|---|---|---|
| | State A | State B |
| True Size | 1 million | 5 million |
| Census Count | 0.9 million | 4.5 million |
| % Missed | 10 percent | 10 percent |

| | Census misses 10% of the population and is distributionally inaccurate | |
|---|---|---|
| | State A | State B |
| True Size | 1 million | 5 million |
| Census Count | 0.8 million | 4.6 million |
| % Missed | 20 percent | 8 percent |

to which we will refer often, describes the distribution of House seats across the 50 states depending on their proportionate share in the total U.S. population. The term reapportionment is frequently paired with another term, redistricting, which is the redrawing of congressional district boundaries within each state. Under a Supreme Court ruling familiarly known as the one-person, one-vote principle, congressional districts must be drawn to be nearly identical in population size. Because of population shifts that take place from one census to the next, many congressional districts have to change their boundaries, an especially political process in states losing a congressional seat. To achieve the precision required by the Supreme Court ruling, block-by-block census numbers are used. A similar process occurs for other election areas—such as those from which state legislators, county commissioners, and city councilors are selected—though the requirement of nearly identical size is somewhat relaxed.

During the 19th century, as the population grew and territories became states, the size of the House of Representatives was steadily expanded: from 105 members for 13 states in the first Congress to 435 members in 1912, following the admission to the Union of the final two continental states, Arizona and New Mexico. This steady expansion took much of the sting out of reapportionment. The size of the pie changed, and established states did not necessarily lose members even as new states joined the Union. But when in 1912 all of continental America was divided into 48 states, Congress permanently fixed the size of the House of Representatives at 435. Despite a tripling of the nation's population in the 20th century, there it has remained (except briefly, when Alaska and Hawaii gained statehood in the 1950s and each was assigned one seat in the House until the 1960 Census could again reapportion the 435 seats).

That the size of the House is fixed means that a state can grow in population but still lose a congressional seat. If it grows less rapidly than other states, its share of the total population declines. Both New York and Pennsylvania suffered this fate in 2000. New York, with a population of nearly 18 million in 1990, had 31 members in the House of Representatives as Census 2000 approached. Its leaders were elated to learn that it had grown by almost a million people, but were quickly disappointed because its share of the total U.S. population dropped, from 7.23 percent to 6.74 percent. The combination of population growth but percentage loss also happened in Pennsylvania.

For the all-important reapportionment of congressional power every decade, as mandated in the Constitution, it is distributional accuracy that has political bite. It is difficult to achieve, both because it is hard to enumerate everyone and because it is hard to establish residency.

For its constitutional task of reapportioning Congress, the census must do two things: enumerate and assign every resident to a specific address. The census determines how many Americans there are and where they live.

The Constitution bases political representation squarely on the principle of residents and residency. The census, then, is not limited to citizens or even to legal residents. It includes everyone in the United States on census day (except temporary visitors and tourists). It includes people with citizenship in other countries who have taken up residence here even if they expect someday to return to their home country. It excludes American citizens living abroad, except members of the armed forces, the diplomatic corps, and other federal employees and their dependents. These citizen groups are included on the premise that they have been assigned abroad by the government, and, unlike other overseas Americans, government records make it comparatively easy to count them accurately (see Box 2).

Why is the census based on residency and not citizenship? One reason traces to the Constitution. National citizenship was not yet established in 1787, and in mandating a census, the Constitution took the expedient step of saying that residents should be counted. But there is a more principled reason. American democracy expects elected officials to represent the interests and needs of whoever lives in their state or district—voters and nonvoters, young and old, citizens and noncitizens. The idea is simple. The roads, schools, and public services are there for everyone. Noncitizens go to school,

have jobs, pay taxes, and join the army. People in the country illegally still drive on the roads and send their children to school—and are subject to payroll, sales, and property taxes.

A residency-based census implies that there is a workable definition of residency, which is not as self-evident as it sounds. The country's first census law, passed in March 1790, required people to be included where they usually resided, even if they were absent at the time of enumeration. Only if they had no "settled place of residence" were they to be counted where they happened to be on census day.

In 2000 the census used a residency rule not much different from that of 1790. The census assumes that the vast majority of the population has a "usual place of residence." Though someone may not be there on census day, he or she considers it a current residence. This of course need not be a single-family dwelling. For many, it is group quarters—college dormitories, military barracks, jails, nursing homes, shelters for the homeless, training camps, and many other arrangements that house groups of people.

The Census Bureau knows that a "usual place of residence" is difficult to apply in many cases. Migrant workers, traveling salesmen, commuters, students, the briefly jailed, the homeless, children of divorced parents moving back and forth between households, Americans temporarily abroad, retirees who winter in the South and summer in the North (and are en route on April 1) are just a few of the groups that make fixed residency rules difficult to design, to explain, and to implement. (See Box 3, page 12, for an example of residency rule confusions in a noncensus setting.)

Political representation based on the population size of a state or election district requires that everyone in the census be assigned to some piece of geography. No one is in the census without a census-day residence. The "residence" can be a park bench or the back of a truck, but it nevertheless has to be located in one, and only one, of the geographic units into which the census divides the country.

Distributional accuracy is, then, affected by whether everyone in the census is located at his or her true place of residence. In a project as vast as a census, with its 120 million addresses, mistakes will be made. Every day new houses are built; industrial lofts, commercial buildings, even churches are converted to residential spaces; homes are subdivided into multiple units and garages converted to rental units. Reverse processes lead to subtracting housing units: abandoned houses are torn down; homes are destroyed by natural disasters or are converted to

*Box 2*

### Counting Americans Abroad: Challenge to Distributional Accuracy

In the midst of taking Census 2000, a minor agitation erupted because the census was not including all Americans living overseas. In a congressional hearing on the issue, proponents argued that being left out of the census was "taxation without representation." Why, they asked, were they taxed and allowed to vote but denied census participation. As I testified in response, there are major technical challenges, and if a reliable methodology, which would be costly, were not implemented, the results would be vulnerable to court challenge. The issue is distributional accuracy. Only in a limited number of countries do resident Americans report their whereabouts to the local embassy. In some instances, Canada being a prime example, Americans do not even need a passport. If the census includes all of the Americans working for oil companies in the Middle East, because they are comparatively easy to locate, but only some of the retirees living in Canada, who are more difficult to locate, distributional accuracy would be affected. Oil industry workers often come from Texas, Oklahoma, and Louisiana, and retirees in Canada often come from Washington and Oregon. The latter states would be disadvantaged relative to the former in the apportionment process. The disadvantaged states would sue and probably win.

An example occurred after the 2000 Census. The allocation formula used to distribute congressional seats works its way from the first seat allocated down to the 435th and final seat. By a narrow margin, the final seat went to North Carolina. If Utah had had only 857 more residents in the census, it would have received the 435th congressional seat. The governor of Utah quickly realized that his state had many Mormon missionaries temporarily assigned overseas—11,000, or many more than the 857 Utahans needed to claim the congressional seat that had gone to North Carolina. Utah had excellent records on the temporarily absent missionaries and argued in a lawsuit that it would be easy and accurate to include them in the census. The court threw the case out on the logic that not just the overseas Mormon missionaries of Utah but overseas Americans from every state would have to be included in the apportionment count, and a retrospective census of overseas Americans was impractical.

Congress has now instructed the Census Bureau to investigate whether overseas Americans can be included in future censuses in a manner that will not advantage some states relative to others. The difficulty is that there is nothing similar to a master address file that can be used as a control to determine who has been included and who missed. Any method that works better for the overseas residents of some states compared with others will be distributionally inaccurate and difficult to defend in the inevitable legal challenge by disadvantaged states.

*Box 3*

**LITTLE LEAGUE RESIDENCY RULES**

**In the late summer of 2002, a front-page story in the New York newspapers reported on a controversy about who was eligible to play in the Little League World Series. Little League rules require players to be resident in the area represented by their team. A team from the Harlem area of New York City was on its way to the championship series when it was learned that school records showed a few players with residences other than those officially listed with the Little League. The discrepancies were not surprising. One boy had moved often from one relative to another and for a short time had slept on the couch of a social worker assigned to his case. Another had had five homes in the last year. For these boys, there was no primary, let alone permanent, residence. School records were hopelessly out of date. The league officials sorted things out as best they could and let the boys play because the residency rules had obviously not been written with the realities of the urban poor in mind.**

other uses. Some of these processes are illegal, which means they never appear in any property records the Census Bureau uses to build its master address file. People living in neighborhoods restricted to single-family residences don't report student rental rooms above the garage; urban apartments in areas with high immigration may be rented to only one family but be home to temporary boarders. Addresses themselves are changed, as old rural route numbers are converted to a more up-to-date system. Streets change names, and sometimes carry two names for years. Ask a New York taxi driver to take you to an address on Sixth Avenue, and you will wind up, correctly, on the Avenue of the Americas.

It is easy to see why every census locates some people incorrectly. This matters in the allocation of representation and resources. There is, however, another feature of distributional accuracy. It is demographic as well as geographic. And it is this feature that loomed large in recent censuses.

## Accuracy and the Differential Undercount

On census day, April 1, 2000, the true population size of the United States was unlikely to be the announced 281,421,906. This is because of the two types of counting errors that plague census taking: missed people and people erroneously included—mostly duplicates, but also people mistakenly thought to meet the residency requirements.

A large-scale census always has some of both errors, and this is why it is correct to describe a national census as a statistical estimate of the population. Except in the highly unlikely event that the two types of errors balance exactly, the census will report either too few or too many people—it has an undercount or an overcount. No large-scale count is immune to these measurement errors. Recall the difficulties of counting Florida votes in the presidential election of 2000, a dispute that finally had to go to the Supreme Court. A year after the terrorist attack on September 11, 2001, there was not yet a definitive report on the number of lives lost in the collapse of the World Trade Center towers. "Thousands of people who had initially been reported as missing turned out to be alive. Others were counted twice or even three times in the original tally. And several dozen people fraudulently tried to add names to the list, hoping to grab a piece of the millions in relief money."[9]

### What Causes an Undercount

In census taking, the number of people missed is normally greater than those erroneously included or double-counted. The difference between the two types of error is the net undercount: the number missed minus the number erroneously included. A census that misses 2 million people but erroneously includes 1 million has 3 million errors, but a net undercount of 1 million. As we see when we examine Census 2000 results, there can also be a net overcount. Historically, however, it has been the undercount that has drawn political as well as scientific attention.

There are many reasons for a persistent net undercount in census taking. There are those who won't be counted. George Washington complained of this in 1790, and there is still a small but not insignificant number who avoid the census. These may be people in the country illegally who fear that the census could lead to deportation. This is not true (the census does not even ask legal status), but someone suspicious of government authorities won't take that chance. There are criminals who don't want to be located. There are people with unlisted phones who live in gated communities or behind the protective wall of guards and doormen and don't want to be bothered. And there are those who choose not to cooperate as a matter of principle. It is doubtful that the census managed to include every militia member living in remote cabins in the mountains of Idaho, all the marijuana growers in Northern California, the very wealthy in Park Avenue penthouses, the illegal migrant farm workers, and other uncooperative groups.

There is a larger group who, though not attitudinally uncooperative, are still likely to be missed. They might return the form if they noticed it or might answer the census taker if they were ever home. But their

lifestyles make them difficult to reach. Perhaps they travel constantly, use transient hotels, don't have phones, and ignore their mail.

People are missed in a census not only because of the attitudes and lifestyles of our complex population, but as the result of problems inherent in census taking itself. Census 2000 started with 120 million addresses. Eighty percent of the households received the form in the mail. For the other 20 percent of the addresses, mostly in rural areas without mail delivery, the bureau hand-delivered the forms. How likely is it that every household got a mail questionnaire or a visit? Some surely were missed. There are remote and unusual housing arrangements in the United States—houseboats, hunting camps, tree houses—even, I am told, a scattering of people who live as hermits in caves.

Delivering the questionnaire is just the first step. Not all of them are mailed back. In 2000, only about two-thirds of the census forms were returned in the mail (see Box 5, page 31). The Census Bureau sent census takers to the 40 million residences that had failed to mail their form back. This required staffing 520 census offices around the country and hiring more than 900,000 mostly part-time employees. Were all of those people well trained, good at their work, and honest? Most were, but not all. Assignments are misunderstood, forms are misfiled, oversight procedures break down. Inefficiency and even falsification happen often enough that the census makes a heavy investment in quality control: a 5 percent sample of the work of every enumerator is redone, allowing for quick dismissal of poor performers. In one instance, because of suspected irregularities, the bureau re-enumerated an entire community.

A number of factors, then, produce census errors: public avoidance and indifference, missed addresses, logistic difficulties, and enumerator performance, to name just a few. These factors occur in every census, and not just in the United States. China took a census in 2000, and reported that its undercount of nearly 2 percent was sharply up from the prior census because China now has a large, elusive migrant worker population and because of growing concerns about privacy. The 2001 census in the United Kingdom reported an undercount of approximately 2 percent, which was attributed to a young and mobile population as well as to a large number of asylum seekers and immigrants who avoid the census.

## Measuring the Undercount

Although census professionals long presumed that there were errors in the census count and that they most likely netted out in the negative, it was in the latter half of the 20th century that statistical practice was advanced enough to measure the undercount. A moment's reflection will suggest why systematic assessment of census errors is difficult. There is only one census. With what, then, can it be compared to determine how complete it is? To reliably assess census accuracy, you would need two (or more) population counts so the results of one could be used to check the other. Historically this would have been prohibitively expensive.

After decades of anecdotal evidence suggesting an undercount higher in some subpopulations than others, there was an unplanned opportunity to study the undercount. When the shock of Pearl Harbor in 1941 drew America into World War II, the government quickly ordered universal registration of young men eligible to be drafted into the armed services. Though obviously not its intent, this universal registration gave statisticians two independent estimates of the number of American males between ages 21 and 35—one reported in the 1940 Census and the other from military records. Comparing these two numbers provided the first reliable measure of how many people, at least among young males, are missed in the census.

This comparison indicated an undercount in the 1940 Census of approximately 3 percent, not surprising to demographers and statisticians. Initially this census fact attracted little interest beyond technical circles. But with civil rights pressures coming to the foreground in the 1950s and then, explosively, in the 1960s, one feature of the undercount gained wide prominence: African American males of draft age had been missed in the 1940 Census at much higher rates than white males. Black men were undercounted by 13 percent, more than four times the rate for whites. Here was the first systematic evidence of an undercount that penalized African Americans.

This definitive demonstration of the differential undercount marked a major turning point in both the politics and the science of census taking. The political consequence, discussed in the next section, emerged in the context of the civil rights revolution sweeping the country. Inevitably the politics of racial justice became intertwined with the technical task of trying to reduce the differential undercount. The scientific consequence was a sustained search for statistical methods that could reliably measure the undercount and its distribution across demographic groups and adjust for these systematic errors.

Census taking involves a continuous program of self-evaluation and self-criticism so that steady improvements can be introduced. It is the Census Bureau itself that reports how well it did. When it announces that the decennial census missed X percent of young black males

*Table 2*

**NET UNDERCOUNT, 1940–1990**

| Census Year | Percent Net Undercount |
|---|---|
| 1940 | 5.4 |
| 1950 | 4.1 |
| 1960 | 3.1 |
| 1970 | 2.7 |
| 1980 | 1.2 |
| 1990 | 1.8 |

Note: Based on a comparison of census results with a population estimate from demographic analysis. One source of the comparatively low net undercount of 1980 was the large number of suspected duplicates in that census, which had the result of increasing the overcount and thus depressing the net undercount. Census-to-census comparisons are difficult because procedures, including how suspected duplicates are removed, vary from one census to the next.

in central cities or overcounted Y percent of middle-age white women in the suburbs, the natural question is: "How do you know?" If there is only one census, there is only one count. There is no other government agency or private firm counting the entire American population. The bureau evaluates its own work by comparing the census with two other estimates it produces of the country's population size, one using demographic analysis and the other dual-system estimation.

**Demographic Analysis.** Demographic analysis is, in theory, quite simple. It starts with a basic population number and then, using administrative records such as birth certificates and immigration records, updates it by adding every birth and every arriving immigrant, and subtracting every death and every person who moves out of the country. The starting point is a compilation based on historical estimates of the four basic factors: births, deaths, immigration, emigration, which are then carried forward as age cohorts and corrected on the basis of special studies of the completeness in administrative records and further adjustment as appropriate in light of recent census results.

**(Base + Births and Immigration)**
**– (Deaths + Emigration)**
**= Demographic Estimate of the Population**

The actual calculation is more complicated because it has to estimate the completeness of birth and death records by age, gender, and race. And allowance has to be made for the less-than-precise estimates of immigration, especially the probable number of undocumented residents, and the estimates of out-migration, on which records are incomplete.

Table 2 shows the half-century trend in the net undercount calculated by comparing the census with estimates from demographic analysis. This table indicates steady improvement in census taking. The slight rise in 1990, after the net undercount had fallen to almost 1 percent, played a significant role in the partisan politics that emerged in preparing for the 2000 Census, discussed below.

Of even more political consequence is what happened to the differential undercount across this half-century. The pattern displayed in Table 3 concerned the Census Bureau. Despite steady decline in the net undercount, the magnitude of the difference for blacks in contrast to other racial groups did not improve; in fact, it was higher at the end of the 50-year period than at the beginning. African American civil rights organizations took notice and were not pleased.

Eventually, concern extended beyond the persistent black undercount. By 1990, statistical work by the Census Bureau produced counts showing how many other minorities were missed. For Hispanics and American Indians, the 1990 rates were even higher than those for African Americans. Asians were missed at about half the rates for blacks but still much more frequently than whites. (The section on "Who Decides Which Count Counts," beginning on page 32, reports these data and updates them for 2000.)

Demographic analysis can indicate the national magnitude of the differential undercount but cannot fix it. The method works at the national level reasonably well, subject to inadequacies in the vital statistics of the nation, but for reapportionment and redistricting purposes, it has glaring weaknesses. For example, it has no measure of internal population movement. It can report where babies are born in one year but not where they were living a year later. For this and other reasons, the method cannot be applied at small geographic levels, and certainly not at the block level required by the Voting Rights Act and by the one-person, one-vote principle of redistricting.

The Census Bureau needed another way to take a second count. It had to work at small areas of geography if the undercount and its differences across groups and areas were to be fixed for purposes of apportioning congressional seats and drawing election boundaries within states.

**Dual-System Estimation.** In the 1930s statisticians began to work out the theory and practice of statistical sampling, with the first large-scale application being surveys of unemployment during the depression years. By 1940, the Census Bureau was using sampling statistics to reduce the costs of the census and the burden on the public by asking some questions only of a repre-

*Table 3*

**CENSUS UNDERCOUNT, BLACK/NONBLACK, 1940–1990**

Percent

| | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 |
|---|---|---|---|---|---|---|
| Black | 8.4 | 7.5 | 6.6 | 6.5 | 4.5 | 5.7 |
| Nonblack | 5.0 | 3.8 | 2.7 | 2.2 | 0.8 | 1.3 |
| **Difference** | **3.4** | **3.6** | **3.9** | **4.3** | **3.7** | **4.4** |

Note: Based on demographic analysis.

sentative sample of households. This sampling-based innovation in 1940 was carried forward into every subsequent census, eventually leading to a census based on the short form and long form.

By 1950, when the differential undercount became clear for all to see, the question was whether statistical sampling might offer a way to assess the census itself. The idea is simple (though the execution is not!). The Census Bureau would first take the census and then follow it with a large sample survey, known as a post-enumeration survey (PES). The sample survey offers a second population count that is compared with the census. Starting in 1950 the method was steadily improved from one census to the next, though not until 1990 did the bureau believe that dual-system estimation, as this method came to be called, could be applied in a way that would compensate for the undercount. What happened in 1990, and then in 2000, is central to the political story of census taking, taken up in the next section. First we review the scientific rationale for using dual-system estimation to fix the census undercount.

Dual-system estimation rests on the idea that two sources of information, independently produced, offer a better estimate of the population than does one source. The statistical procedure comes from wildlife studies, where it is known as capture/recapture. Fish in a lake are captured, tagged, and returned to the lake. On a successive visit, fish are again taken from the lake. This is the recapture phase. By determining how many of the tagged fish from the first visit are not recaptured, and how many fish in the second visit are untagged, an estimate is made of the fish population that is statistically more reliable than either of the counts taken alone.

Dual-system estimation in the census environment permits case-by-case matching of the results from the census with those in the sample. This means that the household information in the sample survey can be used to determine if a household, or person in the household, was in the census (was "tagged") and whether a person was erroneously included in the census—perhaps died just before April 1, or was born shortly after that date, but nevertheless appears on the census form.

This specific matching cannot itself fix the census because it is limited to those households that fall into the sample. But the results of the matching can be statistically generalized (as with any random sample) to estimate the probability that different demographic subgroups are missed. This makes it a very valuable method for the census. With a large enough "recapture" sample, the method can compare undercount rates for different racial groups or other subpopulations, such as renters and owners or central city and suburban residents.

In principle, dual-system estimation can be used to adjust the differential undercount. Imagine a community that actually has 3,000 young African American males, but only 2,700 are counted in the census. If dual-system estimation has independently estimated that for this population group in these types of communities there is a 10 percent undercount, the census can statistically add 300 census records of young African American males, bringing the total to the true number of 3,000. The census does not, of course, add actual people; it simply adjusts the statistical record upward by this number. If there is a measured overcount of a different population group, perhaps college students who are counted both at home and in their dormitories, the statistical record can be proportionately adjusted downward.

This description of dual-system estimation oversimplifies a complex set of statistical and field procedures, and as in any large-scale effort to count human populations, the practice does not always measure up to the plan. Statisticians skeptical of the Census Bureau's adoption of dual-system estimation voice a number of concerns, especially about the reliability of precision estimates and the attempt to apply the method to small geographic areas such as census blocks.[10] We will consider actual implementation issues in later sections.

## Summary

Census accuracy matters to democratic fairness and governmental efficiency. But accuracy is not easily achieved. As it prepared for Census 2000, the Census Bureau believed that dual-system estimation was the statistical method best able to measure and adjust for the persistent differential undercount in census taking. The method was supported by committees of the National Academy of Sciences and the American Statistical Association and

by many of the bureau's technical advisers. There were also leading statisticians skeptical about both the practical and technical challenges in dual-system estimation. These legitimate scientific differences were magnified when the census came under intense political fire. As we will see, the effort to do something about the persistent undercount attracted political attention like no other statistical procedure in census history. We turn now to how the Census Bureau struggled with both the scientific and the political dimensions of accuracy, as well as with other challenges unique to the 2000 Census.

# Unprecedented Challenges in 2000

No census is easy, except perhaps in countries where there is a national population registration system. No such thing exists (at present) in the United States. Nor do we take a census the way it is taken, for instance, in Turkey, where everyone is required to stay home on census day. The American census enumerates a large, diverse, and constantly moving population. All the regular problems besetting census taking confronted the Census Bureau as it prepared for the 2000 Census. But many longtime census observers felt that the familiar challenges were nothing compared with the unprecedented circumstances in 2000.

This section first describes a challenge common to census taking since 1790—population attitudes and characteristics that President Washington complained about—but suggests how these problems have been magnified by recent trends. Beyond the familiar difficulties, however, are three other challenges that made Census 2000 uniquely difficult: the shadow of a so-called failed census in 1990; a government evenly split between political parties with radically divergent views about how the census should be taken; and unprecedented levels of census oversight and scrutiny.

## Changing Demographics and Attitudes

In 1790, U.S. marshals were sent to every dwelling place in America and asked a few questions. This basic census strategy was repeated every decade for almost two centuries, though eventually temporary census workers replaced the marshals. In 1970, a radical redesign took place. Instead of sending census takers to every household, the Census Bureau mailed the form and asked that it be completed at home and mailed back. Nearly four of five households did so. The mail-out/mail-back design was repeated in 1980, when there was a noticeable but not sharp drop-off to 75 percent in the mail-back response. The next decade saw a much sharper decline, down to 65 percent in the 1990 Census (see Box 5, page 31). The bureau feared that this decline would continue, dropping perhaps as low as 55 percent in 2000.

When households fail to return the form, census takers go out to collect the information in person. This also became increasingly difficult over the decades, requiring more effort from one census to the next. Census costs reflected these rising difficulties (Table 4).

Changes in the attitudes and lifestyles of Americans were among the factors that made census taking more difficult and costly between 1970 and 1990. Although this period saw some helpful changes, such as higher levels of education, most of the trends worked against census taking.

What kind of household is most likely to be counted by the census? If you pause to reflect on this question, you are likely to imagine the easy-to-count household as one with a stable family where the family members have only one address and have had it for some time, where mail is delivered and read, where English is spoken, where civic responsibilities are taken for granted, where there is trust in the government.

What kind of household is least likely to be counted accurately? Reflect on this and you will imagine a hard-to-count household as one where unrelated people share living quarters; where household members are seldom at home; where there is a low sense of civic responsibility and perhaps an active distrust of the government; where occupants have lived but a short time and will move again soon; where English is not spoken; where community ties are nonexistent.

Easy-to-count households are much less common now than they were a quarter-century ago, and the portrait of the hard-to-count describes an ever-increasing percentage of our population. Today, for example, married couples living together are about one-half of the nation's households. Single-person households are rapidly increasing, having doubled from 13 percent to 26 percent since 1990. Deferred marriage and high divorce rates are one reason. Another is the increasing life expectancy, which results in one elderly person living alone after the spouse has died. Commuter marriages are increasingly common. There is also an increase in the number of households with unrelated people living together, especially around large universities or in fast-growing areas attractive to young adults.

Americans are on the move. Between 15 percent and 20 percent of us change addresses every year.

Women have joined the work force and are not sitting at home waiting patiently for the census taker to arrive. Increasingly, Americans have two homes and shift often from one to another. Recreational travel is more common. People are busy. They don't want to be bothered by such troublesome tasks as filling out a government form. Although the law says they have to, this is not a law that is enforced (for fear of backlash against the census that would further depress cooperation).

Changes in what we think of as our address and phone number make census taking more difficult. Before e-mail and mobile phones, an address and a phone number belonged to a fixed place. Not now. They exist in electronic space, not on some geographic grid—but the census is inevitably anchored to a geographic grid.

Immigration rates have been extraordinarily high in recent decades, and by 2000 the foreign-born had become 10 percent of America's population. Not all of these 28 million or so recent immigrants speak English; not all of them understand or care about the census. Not all of them welcome contact with government authorities, especially those here illegally. The estimated illegal population doubled between 1990 and 2000, from 3.5 million to 7 million. Many immigrants crowd into city apartments, often without the landlord's knowledge. On the border with Mexico, immigrants often live in large unofficial communities with no basic services and few ties to anything resembling the government. Others live in transitory migrant work camps, staying in one place only as long as there is work.

Civic responsibility and trust in government have steadily declined for several decades. In 1960 about two-thirds of the population said that they trusted the federal government. This percentage fell sharply with the Watergate cover-up and Nixon's resignation. It never recovered, and by the 1990s only about 20 percent of the population trusted the federal government. There are growing concerns about privacy, and public fear that information given to the government will not be kept confidential. The willingness to respond to mail surveys has also fallen sharply. Marketing appeals flood mailboxes, and tossing out the junk mail is a daily chore.

The Census Bureau tracks these demographic and attitudinal changes and knew that taking the 2000 Census was going to present greater challenges than ever before.

## The Shadow of the 1990 Census

Every census is conducted against the fresh memories and lessons of the one before, and the 2000 Census had the burden of following one that was widely if incorrectly dubbed a failure. By any reasonable standard, the 1990 Census was not a failure. All of its major functions were performed on schedule. Congress was reapportioned, new election boundaries were drawn, governments used the data for public policymaking, businesses relied on the data for investment decisions, the United Nations incorporated the results in its worldwide statistical reports, and thousands of journalists and scholars turned to the data to provide serious analysis of how the country was changing. Measured by whether its data were accepted, the census succeeded.

*Table 4*
**COST OF THE CENSUS, 1970–1990**

$13 per household in 1970
$24 per household in 1980
$32 per household in 1990

Note: Cost is in constant 2000 dollars.

Source: U.S. General Accounting Office (GAO), *2000 Census: Significant Increase in Cost Per Housing Unit Compared to 1990 Census* GAO-02-31 (Washington, DC: GAO, December 2001): 7.

However, as Martha Riche, Census Bureau director in the mid-1990s, usefully observed: Though the 1990 Census was a statistical triumph, it was a public relations disaster. To understand how this came about, we refer to Table 2 (page 14), where we saw that the census undercount steadily improved from 1940 to 1980 but then got worse in 1990. It was largely this reversal of an improvement that led the 1990 Census to be labeled a failure. The steady decline in the net undercount had become an easy if imprecise way to say that the census was becoming more accurate. When the net undercount then increased, it was easy to conclude that the census had become less accurate—that is, a "failure."

A cost overrun during the 1990 Census also contributed to its negative image. In the midst of taking the census, the bureau needed a budget supplement. The reason was simple. There was a sharp drop-off in the mail-back response rate compared with the previous census, requiring the bureau to hire more enumerators to find nonresponding households. The need for additional funds, though hardly the fault of the bureau, generated unfavorable publicity. Added to that was continuous media coverage of the many lawsuits brought against the Census Bureau, and the politically charged atmosphere that the lawsuits reflected (discussed below). It was easy, even if misleading, to put the word "failure" on a census that was seen to be inaccurate, over budget, and sufficiently flawed that it had to be taken to court. Con-

gress demanded that the Census Bureau "do better" in 2000, that it come up with a design that would cost less but improve accuracy.

Overcoming the view that the 1990 Census was a failure was important, because lack of confidence in the agency translates into lack of confidence in its statistical products. The stakes are high. A loss of confidence in census data ripples through public policymaking and economic planning. In preparing for 2000, with the shadow of the previous census much in mind, the Census Bureau was more than usually determined to have a successful census.

Then, as planning got underway, Congress began to play a more complicated role. Republicans and Democrats began a prolonged battle over the census design.

## Partisan Politics

A census is inevitably a blend of politics and science—politics because power and money are linked to how many people live where, science because the technically complex undertaking draws on many scientific disciplines.

The initial political purpose of the census has been noted—to adjust the regional distribution of power to match changes in the distribution of the population. With one exception, congressional seats have been reapportioned according to census results. Following the 1920 Census, Congress refused to reapportion (suggesting that 1920 rather than 1990 was a "failed census," though it was the Congress not the Census Bureau that failed). What produced that anomaly?

Between 1910 and 1920, there was a massive wartime population movement from the rural, Southern states to industrial Northern cities. In 1920, for the first time in American history, the census included more city dwellers than rural residents. An urban America was something new and disturbing, especially to those who held to the Jeffersonian belief that independent farmers best protected democracy. Among those of this persuasion were rural, conservative congressmen in the South and West. They saw that reapportionment would shift power to factory-based unions and politically radical immigrants concentrated in Northeastern cities. Conservatives in Congress blocked reapportionment, complaining among other things that because January 1 was then census day, transient agricultural workers were "incorrectly" counted in cities rather than on the farms to which they would return in time for spring planting. (Census day was later shifted to April 1, where it has remained.) The arguments dragged out for a decade, and Congress was not reapportioned until after the next census.

It is instructive to compare 1920 with the even more intense politics later in the century. The 1920 battle aligned the rural Southern and Western regions against the urban Northeast. These regional politics turned on whether to use the census results and were only incidentally about how the census was taken.

Recent controversies have not been regional but partisan, reflecting the sharp divide between Republicans and Democrats that now defines the political culture of America. And now, unlike earlier periods, census politics are focused on the science used to take the census.

These changes mark a significant turning point. For nearly 200 years, under bipartisan congressional oversight, census professionals had designed the methods by which data were collected and the results reported. If politicians sometimes argued about how the results would be applied, that was of no concern to the Census Bureau. Over time the bureau became a professional, scientific agency, careful to maintain distance from the partisan consequences of the statistics it generated. Its thousands of employees take for granted that it is the bureau's reputation for nonpartisan, independent science that earns public cooperation and respect. To tarnish this reputation would put at risk data collection itself and would eventually lessen public confidence in census statistics.

How, then, did it come to pass that a technical and nonpartisan government agency was caught up in a sharply polarized partisan battle late in the 20th century?

### Under-Representation

The civil rights laws of the 1960s are an important part of the story. These laws were intended to guarantee equal opportunity to America's racial minorities and to overcome a long history of racial discrimination. But conditions were slow to improve, and civil rights leaders in and out of government began to search for stronger policy instruments. Rather quickly in this effort, statistical proportionality became a favored legal and administrative tool. Statistical proportionality involves comparing how many members of a racial or ethnic minority group occupy particular positions compared with their numbers in the general population. If African Americans are 12 percent of the population, but only 5 percent of college entrants or only 1 percent of the nation's business leaders, African Americans are under-represented. Under-representation is simply the ratio of the proportion of a group in a given position to

its proportion in the general population. The denominator for this ratio comes from the basic population numbers of the census.

Under-representation became presumptive evidence of racial discrimination. In dozens of settings—higher education, health access, home mortgages, construction contracts—attention focused sharply on who was under-represented. The nation entered a period in which social justice politics became the calculation of proportionality, and these calculations moved into court cases, college admission practices, hiring and firing decisions, and government contracting. Racial minorities other than African Americans fell under the protection of civil rights laws. And soon women and the disabled made claims similar to those of racial minorities—that they were proportionately under-represented.

The civil rights influence on the politics of census taking was reinforced by a second if less dramatic government initiative of the late 1960s. The Republican administration of Richard Nixon believed that the legacy of New Deal policies and of World War II had shifted too much power to the federal government. It was time to rebalance by returning authority to state and local governments through revenue sharing. Taxes collected at the federal level would be shared with state and local governments, which would know better how to spend them. Health and education programs, public transportation initiatives, and many other state and local government activities began to receive federal funds in significant amounts.

The laws under which federal funds are distributed specify what groups and areas will receive them. Spending formulas routinely incorporate population size as a factor. Cities with more children in poverty receive greater school funds than cities with few such children; communities with large elderly populations receive more health care funds than communities with younger populations; faster-growing cities receive more transportation dollars than cities with declining populations. Although these formulas do not specify minorities, they often use measures—central city residence, crowded housing, low income—that correlate with race.

The political stage was set. The visionary social scientist, Daniel Patrick Moynihan, later to be senator from New York, was the guiding hand behind a "Conference on Social Statistics and the City" that drew out the obvious implication:

> *"Where a group defined by racial or ethnic terms and concentrated in special political jurisdictions is significantly undercounted in relation to other groups, individual members of that group are thereby deprived of the constitutional right to equal representation in the House of Representatives and, by inference, in other legislative bodies. They are also deprived of their entitlement to partake in federal and other programs designed for areas and populations with their characteristics. In other words, miscounting the population could unconstitutionally deny minorities political representation or protection under the Voting Rights Act. It could also deny local jurisdictions grant funds from federal programs."*[11]

These themes gathered political currency in the turbulent 1970s, putting pressure on the Census Bureau as it prepared for the 1980 Census. After all, the census was constitutionally established to ensure that political power and representation would be equitably allocated. Big-city mayors and civil rights leaders were fully aware that to count some groups more completely than others puts equal treatment at risk.

What should or could the bureau do about the increasingly unacceptable differential undercount? There were two possibilities: one, conduct a traditional census more effectively—that is, count better. This led the bureau to introduce a number of coverage improvement methods, including using more advertising to increase cooperation, hiring multilingual census takers who could reach out to hard-to-count population groups, and making multiple callbacks to nonresponding households. The reduction of the undercount from one census to the next gave some hope that the bureau could use traditional methods to count better. But the differential undercount between whites and blacks persisted.

### Adjustment

This left the second possibility: dual-system estimation. This statistical procedure held out the hope that the raw census counts could be adjusted to more accurately align them with the true size of different population groups. Specifically, and most important, it could correct differences in how well blacks were counted compared with whites. At least this was the hope.

In the 1980 Census, there was a post-enumeration survey designed to be used for dual-system estimation. The Census Bureau evaluated the results and concluded that there were problems that precluded statistically reliable adjustment. It announced that there would be no adjustment in the 1980 Census, but promised that it would continue its statistical work on dual-system estimation in anticipation of adjusting the next census.

This promise did not satisfy political interests that cared deeply about the rights of minorities, which they

saw as denied by the undercount. More than 50 lawsuits were filed seeking to require the adjustment of the 1980 Census to compensate for missed minorities and city dwellers. The most serious legal challenge, brought by Detroit, New York City, and New York state, sought to stop the release of the 1980 Census results until they were adjusted. Under court order, the results were released on schedule, but the case was allowed to proceed to trial. A court ruling eventually upheld the Census Bureau's decision because it had not acted in an "arbitrary and capricious" manner.[12]

During the 1980s, the bureau continued its statistical work, convinced that there was a good chance that adjustment methods could be improved and used in the 1990 Census. It planned accordingly.

By now, however, it was naïve to presume that census planning could be insulated from partisan politics. The Republican and Democratic parties were roughly balanced. Small changes in reapportionment and redistricting could decide which political party controlled the Congress or the White House. The one-person, one-vote ruling of the Supreme Court put pressure on the parties to squeeze every possible advantage in the redrawing of congressional districts after the 1990 Census. Increasingly sophisticated computer-assisted methods allowed the parties to make fine-grained decisions down to the block level.

In this strongly partisan environment, the Census Bureau announced in mid-decade that the 1990 Census would include a post-enumeration survey and that the raw census data would most likely be adjusted to minimize the differential undercount. The Commerce Department, which has formal authority over the Census Bureau, rejected the bureau's plan. The department was quickly taken to court by a coalition of local governments and advocacy groups insisting that the plan be reinstated. There was an out-of-court settlement that allowed the Census Bureau to include a post-enumeration survey in the 1990 Census design, but then gave to the secretary of commerce the authority to set the criteria by which its results would be evaluated and to make the final decision about whether the raw census results would be adjusted.

Why did the Commerce Department try to stop its own bureau from designing the 1990 Census as it saw fit? Census politics had become partisan politics. By the time we got to the 1990 Census, it was obvious that among the population subgroups consistently undercounted were urban minorities, and the subgroups most likely to be overcounted were suburban whites. Leaders in the Democratic Party, understandably, wanted a census method that would increase urban populations in order to increase the number of districts likely to elect Democratic candidates. Eliminating the undercount would move in this direction. Republican Party strategists, also understandably, favored a traditional census, especially because it was known to work reasonably well in the white suburbs, where many of the Republican Party's supporters were and are concentrated.

Census method had collided with partisan interests. Both sides dressed their arguments in high-minded language. Democrats spoke of fairness, not partisan advantage. They insisted that the Census Bureau be allowed to apply whatever scientific methods it thought would improve census accuracy. Republicans cited the constitutional provision that an "actual enumeration" be taken as reason to reject any plan using sampling, and they argued that there was no guarantee of a more accurate census using sampling and dual-system estimation. Both sides found support among reputable statisticians, though the weight of professional judgment favored the bureau's design.

Leading up to the 1990 Census, it was a Republican secretary of commerce who tried but had been unable to stop the Census Bureau from including a post-enumeration sample survey. The subsequent out-of-court settlement then produced a curious directive. The bureau would execute the census, evaluate its work, and then decide whether adjustment would improve the raw count. But its decision would take the form of a recommendation to the secretary who had opposed the design in the first place. This set the stage for a confrontation—and that is what happened with the 1990 Census.

The Census Bureau's statisticians concluded that dual-system estimation had worked well enough to warrant statistical adjustment. Barbara Bryant, director of the Census Bureau and a Republican appointee, agreed with this conclusion and presented her recommendation to Commerce Secretary Robert A. Mossbacher. He rejected the recommendation. Overruling a statistical agency in this way was unprecedented, as was one reason the secretary gave for his decision:

> *"The choice of the adjustment method selected by the Census Bureau officials can make a difference in apportionment, and the political outcome of that choice can be known in advance. I am confident that political considerations played no role in the Census Bureau's choice of an adjustment model for the 1990 Census. I am deeply concerned, however, that adjustment would open the door to political tampering with the census in the future."*[13]

This was the first time in American history that a high government official voiced the charge that the nonpartisan, professionally managed Census Bureau might choose a data collection methodology in order to favor one political party over another. The secretary's language was cautious, and he was careful to say that it could happen, not that it had, but in the highly charged political atmosphere cautionary language was soon forgotten. In the close presidential election of 1992, Arkansas Governor Bill Clinton defeated the incumbent Republican, George Bush. Republicans felt that an outsider, and an untrustworthy one at that, had captured the White House. Partisan polarization reached new highs in the 1994 congressional elections, which brought to Congress a number of conservative Republicans deeply mistrustful of Clinton. The Republican Party gained control of the House of Representatives in 1994, and kept control during the entire period in which the 2000 Census was being planned and conducted.

As inevitable as it was unfortunate, census design became a target of partisan animosities. Statistical adjustment, often though inaccurately reduced to the label "sampling," became a political football. The Democratic Party, with its control of the White House, had no doubt that the census could improve its political fortunes. Clinton's first secretary of commerce was the popular African American, Ron Brown, who died in a plane crash, and was replaced by Bill Daley, son of renowned Chicago Mayor Richard Daley, remembered by Republicans as the party boss who had "stolen" the election that barely sent Kennedy to the White House three decades earlier. Republicans were deeply distrustful of what they saw as a very political Commerce Department, and certainly this department did forcefully protect the bureau's right to prepare a 2000 Census that incorporated the adjustment methodology.

Congressional Republicans were now in control of the key subcommittees that reviewed the census plans and appropriated their funds. Their position was clear: In 1997, Jim Nicholson, chairman of the Republican National Committee, sent the following call to arms to local party leaders:

> *"I am contacting you to recruit your assistance in addressing an issue of unusual importance to the future of the Republican Party. At the heart of the matter is one of the federal government's most fundamental constitutional functions: the United States census. At stake is our GOP majority in the House of Representatives, as well as partisan control of state legislatures nationwide.*
>
> *"The Clinton administration is implementing a radical new way of taking the next census that effectively will add nearly four and one-half million Democrats to the nation's population. This is the political outcome of a controversial executive decision to use a complex mathematical formula to estimate and 'adjust' the 2000 Census. ...*
>
> *"... The GOP would suffer a negative effect in the partisan makeup of 24 congressional seats, 113 state senate seats, and 297 state house seats nationwide. ... An adjusted census could provide Democrats the crucial edge needed to prevail in close contests to control several state legislative chambers."*[14]

This prediction of how many Republican seats would be "lost" was never documented or subjected to independent analysis. Most students of reapportionment and redistricting believe it is probably impossible a priori to calculate partisan shifts in legislatures resulting from a decennial census, and consider the predictions in this memo highly implausible. As Census Bureau director, I knew that there were far too many factors at work in the census to expect one particular statistical method to have consequences of the scope set forth in Mr. Nicholson's memo.

Plausibility, however, was not the issue. If the Republicans thought sampling would hurt their interests, Democrats were just as certain that it would help theirs. Civil rights organizations argued in favor of the adjustment methodology, claiming that the Republican Party did not care about racial minorities and social justice. The Congressional Black Caucus—all Democrats—took up the census as a leading civil rights issue, and they were often joined by Hispanic and Asian members of Congress. Dozens of congressional votes taken on census issues in the 1990s split on party lines.

One hardly surprising consequence of this partisanship was an unprecedented layer of official oversight and ongoing scrutiny of the Census Bureau. It was in the oversight system that the two political parties, one with control of the Congress and the other with control of the White House, jockeyed for advantage. This back and forth, with the Census Bureau in the middle, is the fourth of the major challenges that faced the bureau as it made final preparations for the 2000 Census.

## The Census Under Scrutiny

I became director of the Census Bureau in late 1998, never having been active in party politics or worked in the federal government. After my appointment was announced, but before I got to Washington, the sentence I most fre-

quently heard was: "You're taking on an impossible task." After a few weeks in Washington, it was clear that could not be so, for everyone I met was telling me how to do my job. In fact, the director of the Census Bureau does have many bosses. To give a full account of all of them, and of the oversight to which the 2000 Census was subjected, would turn this into an epic. Here I list the main [organizational] players, all of which had views, often strong views, about how to take the census in 2000.

- As part of a compromise reached during legal and budgetary battles over the census in 1998, the Congress and the White House agreed to jointly appoint a Census Monitoring Board—the first of its kind in census history. This eight-person board, evenly divided between Republicans and Democrats, had its own professional staff and budget ($3 million). Its task, as its name implies, was to monitor the census, hold hearings, inspect census operations, make recommendations, and periodically issue reports on how it thought the census was going. Because the board was evenly divided, few joint reports were issued. The Republican side would issue its report, worrying that the bureau was going to rely on sampling rather than work hard to count everyone. The Democratic side would issue its report, generally defending the census design and the performance of the bureau.
- The Census Bureau's own collection of eight different advisory committees held a total of 25 meetings as the census was underway. Five of these committees, respectively representing African Americans, Asians, Hispanics, American Indians, and Native Hawaiians/Pacific Islanders, focused sharply on the differential undercount issues, defending the sampling design but each also insisting that every effort be made to count fully in their particular community. Other advisory groups, such as one from the National Academy of Sciences, focused on technical issues, particularly on how to improve the statistical adjustment methodology.
- The main congressional investigating agency is the General Accounting Office (GAO). It had a professional staff dedicated to the 2000 Census, which issued a dozen reports (each requiring detailed information supplied by bureau staff) sprinkled with alarming comments such as, "The census faces ... several methodological, technological, and quality control challenges. ... The country can ill afford an unsatisfactory census at the turn of the century. ... Maps still have problems. ... With less than four months remaining until census day, significant operational uncertainties continue. ... Uncertainties raise concerns that the 2000 Census may be less accurate than the 1990 Census. ... [The] Census Bureau still has not resolved the longstanding challenge of motivating public participation in the census." Each of these reports concluded with specific recommendations of action to be taken by the bureau.
- The parent agency of the Census Bureau, the Commerce Department, had a number of departmental reviews, mainly focused on budgeting, staffing, and related management issues. As director, I reported to an undersecretary in the department, who had a small staff dedicated nearly full-time to the census and was determined that the 2000 Census not be tagged a "failure" as it had been in 1990. This staff was also preoccupied with political strategies that would protect the adjustment methodology. In addition, the Commerce Department, like all federal departments, has its own inspector general's office, whose duty it is to investigate fraud or mismanagement of funds. In a few instances where there were questionable practices by enumerators, this office conducted an investigation and issued its findings and recommendations.
- The White House also took a close interest in the census, though it was careful not to do anything that could be interpreted as trying to politically influence the Census Bureau. The White House mounted a vigorous defense of statistical sampling and worked to reassure its civil rights and urban constituencies that they would be well counted.
- The Office of Management and Budget (OMB) had the responsibility to ensure that budgets submitted by the Census Bureau were consistent with general requirements of the administration, and it had its own budget inspectors who scrutinized dozens of planned census operations. OMB also houses the Office of the Chief Statistician of the United States, responsible, for example, to help coordinate between the Census Bureau and other federal statistical agencies. The judgment of the chief statistician, Katherine Wallman, regarding major census operations helped the White House form its views about the likelihood of a successful census.
- The most sustained oversight was provided by the U.S. Congress, whose responsibility traces to constitutional language—the census is to be carried out "in such Manner as [Congress] shall by law direct." A number of committees and subcommittees with jurisdiction over one aspect or another of the census held hearings. In 1999 and 2000, I appeared in formal hearings before Congress more

than 20 times, defending, explaining, and otherwise attempting to convince Congress that it was too late for it to micromanage the taking of the census itself. The House Subcommittee on the Census was the most active (see Box 4). In addition to holding hearings, this subcommittee frequently sent lengthy letters to the Census Bureau requesting that it explain, account for, or otherwise justify particular operations.

In addition to the formal processes of monitoring and oversight listed above, governments and community organizations everywhere in the country were quick to demand of the Census Bureau that it fix any problems they detected—asking if enough staff been hired; complaining that the advertising budget was insufficient; probing into whether enumerators had language skills relevant to local needs; and, above all, monitoring whether their cities were being enumerated as rapidly and completely as others. They often communicated with the bureau through the local newspapers, and much time was spent responding to media stories about problems with the census.

*Box 4*

**OVERSIGHT OF THE 2000 CENSUS: HEARINGS BY THE HOUSE SUBCOMMITTEE ON THE CENSUS**

| | |
|---|---|
| Community-Based Approaches for a Better Enumeration | Jan. 29, 1999 |
| Examining the Benefits of Post-Census Local Review | Feb. 11, 1999 |
| Examining the America Counts Today (ACT) Initiatives to Enhance Traditional Enumeration Methods | March 2, 1999 |
| Examining the Census Bureau's Policy to Count Prisoners, Military Personnel, and Americans Residing Overseas | June 9, 1999 |
| Community-Based Approaches for a Better Enumeration | June 28, 1999 |
| Examining the Census Bureau's Advertising Campaign | July 27, 1999 |
| Discussion of the Effects of Including Puerto Rico in the 2000 U.S. Population Totals | Sept. 22, 1999 |
| A Midterm Evaluation of the Local Update of Census Addresses Program | Sept. 29, 1999 |
| Examining the Status of Key Census 2000 Operations | Feb. 8, 2000 |
| Examining the GAO's Census 2000 Oversight Activities | Feb. 15, 2000 |
| Status of Census Bureau Operations and Activities | March 8, 2000 |
| Status of Key Operations | March 14, 2000 |
| Mail-Back Response Rates and Status of Key Operations | April 5, 2000 |
| Status of Nonresponse Follow-up | May 5, 2000 |
| Nonresponse Follow-up and Other Key Considerations | May 11, 2000 |
| Accuracy and Coverage Evaluation (ACE)—Still More Questions Than Answers | May 19, 2000 |
| Status of Nonresponse Follow-up and Closeout | June 22, 2000 |
| The American Community Survey—A Replacement for the Census Long Form? | July 20, 2000 |

In short, the enterprise that was monitoring the census sometimes seemed to be as vast as the census process itself, and at the Census Bureau we often felt under siege. Mostly, of course, the flow of recommendations—for better or worse—came too late to have much effect. A member of Congress wanted census forms in 33 languages rather than the six languages already printed, a highly impractical suggestion only a few months before census day. Arguments over whether the bureau could hire noncitizens threatened to derail a recruitment effort already underway.

In other instances, the bureau took advantage of advice. Its own advisory committees were especially helpful because these committees were informed and made recommendations consistent with tight schedules and existing budgets. Efforts by local governments to improve the address list materially improved the address file and led to a better census in many cities. The frequent and well-informed warnings by the GAO that the census was at risk seldom said anything the bureau did not already know but reminded political leaders of the importance of the census and helped worry Congress into appropriating the necessary funds.

Although the seemingly endless scrutiny of the census occupied management time that might otherwise have focused on the job at hand, we welcomed its contribution to an open and transparent census. The unprecedented oversight was a consequence of the polarized partisan battles over census design, with its subtext that the Census Bureau could have a partisan agenda. This charge was groundless and even silly. An agency said to have "failed" in 1990 was, a few years later, suspected of being so clever and competent that it could design a census able to shift seats from one party to another a number of years in the future. We could answer this accusation only by complete transparency.

In fact, neither the culture nor the competencies of the Census Bureau are suited to advancing a partisan agenda. The professional statistical community—inside and outside the government—is the bureau's peer community, and the bureau would not jeopardize its high standing among its peers for a short-term political purpose. Of even greater importance, the Census Bureau has the confidence of the American public—a confidence indispensable for public cooperation with its large complement of mainly voluntary statistical surveys and studies (see "The Census Bureau Is More Than

the Decennial Census"). To risk public trust and cooperation for a one-time political outcome would be an act of institutional suicide.

Even if its culture were to allow it, the Census Bureau does not have the competence to decide partisan outcomes. There is no expertise in the bureau on trends in voting behavior or in the fine art of drawing election lines. To deliberately influence partisan outcomes, the Census Bureau would need to bring to bear such expertise when making decisions on methodologies—several years in advance of when census results are going to be used for redistricting.

These factors notwithstanding, the concern that the bureau could be subjected to partisan influence was in the air. Active cooperation with the oversight process was the only means available to the bureau to answer this concern. In the end, all the oversight processes, advisory groups, and public watchdogs failed to find partisan intention in the design or conduct of the census. Given the scope of the monitoring effort and the number of groups intent on finding partisan bias, that is powerful evidence that there simply was none to be found.

## Summary

In addition to the always tough task of taking a census, the bureau in 2000 faced unprecedented challenges. There was the ever-rising difficulty of getting the American public to cooperate, aggravated by a shadow of the so-called "failed census" in 1990, and the pressure on the Census Bureau to do better. These conditions were in turn greatly complicated by the political environment of mistrust, which led to a level of oversight that itself became a whole side industry in the midst of the census.

### The Census Bureau Is More Than the Decennial Census

What does the Census Bureau do in the other nine years when it is not taking the census? It takes other surveys for the federal government. One of the largest of these is the Current Population Survey (CPS), sponsored by the Bureau of Labor Statistics and other agencies. This survey began in 1942 and is fielded every month, year in, year out. It is the basic source of information on employment and labor force participation and is used to set the official poverty line. Also sponsored by the Bureau of Labor Statistics is the Consumer Expenditure Survey, begun in 1979 and conducted quarterly. This survey generates data for the Consumer Price Index, to which are linked the growth of Social Security checks and private pension payments, interest paid on inflation-adjusted bonds, and the positioning of tax brackets. These are just a few of the household surveys conducted by the bureau, often through agreement with other federal agencies.

There is also an extensive Economic Census taken every five years, in years ending in a "2" or a "7" (so it will be off-cycle with the decennial census). This is a census of America's business establishments—from accounting to automobiles, energy to entertainment. It offers a detailed picture of the nation's economy. The underlying classification of business activity by industry group has recently been updated and is now calibrated with Mexico and Canada (the North American Industry Classification System) to better understand economic transactions with our immediate neighbors.

Adding to the nation's economic data are an Agriculture Census and a Census of Governments that reports detailed expenditure information from 39,000 government jurisdictions—states, counties, cities, townships, and tribal councils. Economic statistics are used by the Bureau of Economic Analysis to assess the nation's economic performance, including estimating the Gross National Product (GNP). The quality of the data matters. A mistake in GNP-growth estimates of only one-tenth of one percent (0.1 percent) translates into a $230 billion error in a 10-year federal budget estimate.

The Census Bureau is the nation's largest statistical agency, but in the large task of providing official statistics for the country it is joined by nearly 70 additional federal government statistical programs—listed in *Statistical Programs of the United States Government*, published annually by the Office of Management and Budget, and also available on the Internet: www.whitehouse.gov/omb/inforeg/statpolicy.html#sp. The one-stop shopping site for federal statistical data is www.fedstats.gov.

## DESIGN, EXECUTION, ACCOMPLISHMENTS

The 2000 Census, like all censuses, had multiple tasks and purposes. But powerful forces lifted one of these purposes—reduce the undercount and its differential consequences for racial groups—to a privileged position. The forces came from inside and outside the Census Bureau. Within the bureau, there were memories of the charge that 1990 was a failed census, and professional pride had been wounded. More tellingly, for a half-century the bureau had worked to understand the undercount well enough to fix it, thus far without success. It prepared for the 2000 Census confident that sampling methodology could solve the undercount problem.

Politics as well contrived to make the undercount the centerpiece of the census design. An active coalition speaking for historically undercounted groups—Asians, Hispanics, and American Indians as well as African Americans—declared the undercount to be the "civil rights issue of the decade." Leaders of states and cities with high undercount rates in 1990 had, they insisted, lost huge amounts of federal funds as a result, and they did not want a repeat in 2000. Both political parties, each for its own reasons, put the undercount at the center of their divergent strategies for taking the census. Less political interests—a huge and varied group of data users—wanted an accurate census, and this they took to be one without an undercount.

From all sides, the pressure mounted. The bureau had two possibilities: improve traditional census methods or statistically adjust (using dual-system estimation). In the world of census methods, this is not an either-or choice. A full-scale application of traditional methods would not preclude use of adjustment if the effort fell short. The political world did not see it that way. The Republicans said no to adjustment, no matter the results from the traditional census. The Democrats held that the undercount was so resistant to traditional methods that only statistical adjustment could ensure fairness.

These predetermined, strongly held partisan positions ruled out what, in effect, political leadership had said in earlier times: "We expect the most accurate census possible and instruct the Census Bureau to use its experience and scientific judgment to select and administer a census design that has the highest probability of accuracy." That was not the message. There was no single message, but contradictory instructions.

Congressional Republicans ritualistically chanted: "Sampling in census taking is illegal, unworkable, and suspect." The White House and the congressional Democrats, no less ritualistically, responded: "Let the Census Bureau professionals use the most modern scientific methods available to fix the injustice of undercounting the poor and racial minorities."

Caught between the congressional Republican majority and the Democratic administration, the bureau was instructed to plan for two censuses—one using traditional methods only and the other using sampling. In late 1998, only a few weeks into my directorship, I appeared before the Census Monitoring Board, where I was asked what I thought of the "two-track" planning effort. "It feels," I quipped, "as if you are giving me Yogi Berra's famous advice: 'When you come to a fork in the road, take it.'"

The awkward period of two-track planning had been put in place pending the outcome of a lawsuit working its way to the Supreme Court. This case (explained below) would presumably settle the political fight by allowing or forbidding sampling in Census 2000. The case was heard in the late fall of 1998, and announced in January 1999. To follow the story of the census, we need a broad overview of how the Supreme Court ruling influenced the census design (see Table 5).

Note that prior to the Supreme Court ruling, statistical sampling had two purposes, as described below. Second, note that the Supreme Court ruling dealt with

*Table 5*
**THE 2000 CENSUS DESIGN**

| Design Factors | Before the Court Ruling | After the Court Ruling | |
|---|---|---|---|
| | | Results Used for Apportionment* | Results Used for Redistricting* |
| Traditional Methods | Yes | Yes-plus | Yes-plus |
| Sampling for Nonresponse | Yes | No | No |
| Sampling for Adjustment | Yes | No | Perhaps |

*Apportionment refers to the state-by-state counts that determine how many seats in the House of Representatives each state will get after every decennial census. Redistricting refers to the drawing of election boundaries within the state for congressional elections and, by extension, boundaries for state legislative and other election districts.

census results used in apportionment. This ruling left open the possibility that census results used for apportionment could differ from those used for redistricting. Whether the Supreme Court intended this inconsistency is unclear. Finally, note that traditional census methods will vary in their extensiveness depending on the level of funding provided. The "yes-plus" means that the Congress provided more funds than initially anticipated, allowing for a more thorough traditional census than initially planned.

To understand what the bureau designed following the Supreme Court ruling, we must see why there were two kinds of sampling in the preruling design—sampling those who failed to return a form in the mail and sampling for dual-system estimation.

## Sampling in the Census Design Prior to the Supreme Court Ruling

In 1992, Bill Clinton became president. From 1994 forward, Republicans controlled Congress. The Constitution grants Congress authority over how the census will be conducted, but the statutes governing the census vest responsibility in the secretary of commerce, who has customarily delegated authority to the Census Bureau director. Martha Riche, a distinguished demographer, was Clinton's first director.

When census planning first got underway, the government was mired in red ink. The high costs of census taking looked like a good candidate for savings. Under instruction to holds costs down, the Census Bureau turned to what, in its professional view, was obvious—the increased use of sampling. The bureau had had a long and successful experience with sampling in its many surveys (see "The Census Bureau Is More Than the Decennial Census," page 24) and in the census itself, with the administration of the long form and of quality control procedures, but it had never proposed sampling as an aid to the basic count of the population. In the early 1990s, it recommended just that, with support and technical advice from committees of the National Academy of Sciences.

### A Sample of Nonrespondents

As usual, in 2000 the census form would be delivered to every household on the address list. When there was no response, a census taker would be sent to get the answers. Every reasonable effort would be made to get information—making up to six return visits or telephone calls, taking proxy answers from neighbors or apartment building managers, and so forth. That is, traditional enumeration methods would be used for every household in the country.

Knowing how unlikely it was that it would be able to reach every household, however, the bureau would draw a sample of nonresponding households. After all reasonable effort had been made using traditional methods, the focus would shift to this sample. Because resources would be concentrated and only the most skilled enumerators used, there was a much better chance of getting replies from a sample of the very hardest-to-count households than from every household. On the basis of this sample, the census could statistically estimate the household size and characteristics of the other nonresponding households. Great Britain successfully used this method in its census of 2001.

### A Post-Enumeration Sample Survey (PES)

The design included a second use of sampling, along the lines reviewed in the section on census accuracy. Census 2000 would conduct a large post-enumeration sample survey that could be matched to census results, and the matching would be used to calculate the rate at which discrete population groups were under- or overcounted. The census would then be adjusted accordingly. The post-enumeration sample survey was itself expected to be a mammoth operation of 750,000 households. This huge sample was needed to provide statistically reliable estimates for each individual state.

This census design was announced in early 1996. The American Statistical Association and other professional organizations endorsed it, but it was not well received by congressional Republicans and other critics of sampling for the basic population count. They noted, correctly, that there were technical problems not yet worked out. In a less politically heated atmosphere, the Census Bureau would have worked on these problems in field tests, with evaluation studies, and by consulting advisory committees, but the congressional Republicans with census oversight responsibilities wanted to drop "sampling methods to complete or adjust the actual enumeration of the 2000 Census," and Jim Nicholson sent his inflammatory memo, quoted earlier.

Political battles simmered throughout 1996 and 1997. In frustration at being unable to derail the census plan, the Republican-led Congress finally attached anti-sampling language to an unrelated bill (on flood relief) that it believed Clinton would be unable to veto. The president did veto the bill, signaling the importance of the census for the Democratic White House.

The partisan struggle continued through congressional hearings; arguments between experts on both

sides; the resignation of Census Bureau Director Riche; compromises that left the bureau trying to plan for a rapidly approaching census without yet knowing whether sampling would be allowed; and always the heavy oversight by Congress and its investigating arm, the GAO. Then, in early 1998, a federal lawsuit was brought by Newt Gingrich, the Republican speaker of the House, seeking court action to prevent the Clinton administration from any use of sampling in producing the apportionment numbers.

Following expedited procedures, in January of 1999, the Supreme Court ruled against sampling (in a narrow 5-to-4 decision). The court cited language in the basic census statute that was ambiguous but could reasonably be interpreted as prohibiting the decennial census from using sampling to produce the state-by-state apportionment counts. Contrary to widely circulated reports, the court did not rule that sampling was unconstitutional. It set aside sampling as part of nonresponse follow-up. It prohibited the application of a post-enumeration sample survey to adjust the census results for apportionment. The critics of sampling were initially enthusiastic about the ruling, but their victory was a mixed one—it would be two years before we finally learned the fate of sampling in Census 2000. The court did not rule on whether sampling could be used for other census products, which included redistricting data.

In the paragraphs that follow, we see how the mixed message on sampling moved the partisan politics to a different battlefield. In the remainder of this section, we will review how, following the court ruling, the Census Bureau planned a census using traditional methods that have their origins in the 1790 Census overseen by Thomas Jefferson.

## The Budget for the 2000 Census

With the Supreme Court having settled the issue of sampling for nonrespondents, the bureau focused on procedures that would maximize coverage and reduce the net undercount as well as differences in the completeness of the count for different population groups.

This effort was going to be expensive, but in the heady economy of the late 1990s, tax revenues were sharply up. In this fiscally comfortable environment, the Republican-led Congress was willing to pay the bill. Having successfully challenged a less costly plan designed to reduce the undercount, Republicans were accused of not wanting a census fair to racial minorities. Their strongest answer was to fund the census generously, and in particular to provide dollars for efforts targeted to reducing the undercount of racial minorities: more money for community partnerships and promotional campaigns, higher salaries for enumerators working in difficult-to-count areas, and additional support for outreach programs in remote areas and places with high immigrant concentrations.

Ironically, though the initial planning for the census was guided by firm congressional direction to hold costs down, Congress eventually funded the 2000 Census at nearly twice the level of the previous one. To a bureau long accustomed to pleading for every extra dollar, the unexpected boon was a pleasant surprise.

Almost without exception, every census has been more expensive than the one before—having more people to enumerate accounts for some of the cost increase, but even on a per capita basis, the costs increased. In the first census in 1790, it cost an average of 10 cents per person. By 1900 this had multiplied 30-fold (in constant dollars). Costs rose throughout the 20th century, and by 1990 the per capita cost was four times higher than in 1900. Of course the quality and quantity of the data and the speed with which they are released improved substantially. The modern census is probably four times better than the census was at the beginning of the 20th century, and maybe more than 100-fold better than a century before that. Quality improvements explain part of the increased costs. The other cost driver is a population increasingly difficult to enumerate, for reasons noted in the section on "Unprecedented Challenges in 2000" (beginning on page 16).

The 2000 Census was initially budgeted at more than $7 billion; it came in half a billion under budget (approximately $56 per household). For the first time ever, the Census Bureau was treated by the Congress much as the military is in time of war. Military leaders are told to go where necessary and do what is needed to win the war. They don't stop to ask whether there are funds to respond to the unexpected. If the census, the nation's largest peacetime mobilization, is to be successful, it must also rapidly deal with the unexpected. Census taking is a gigantic operation crowded into a short time frame. Not everything can be anticipated. In 2000, for instance, major floods in North Carolina and widespread fires in Arizona required special action by the bureau; the bureau had to hire nearly a million people in a tight employment market.

In addition to allowing intelligent planning and response to the unexpected, the healthy budget for the 2000 Census allowed for expansion of the various efforts urging public cooperation. This expanded effort is indicated by the "yes-plus" in Table 5 (page 25).

## Traditional Census Methods in 2000

The term "traditional census" took on two, related meanings. It described the use of procedures—from public announcements urging cooperation to repeated call-backs when no form is returned—that had traditionally been used to maximize coverage and minimize errors in the census. In the political arena, the term was also used to describe a census using only enumeration to arrive at the basic population count. The Supreme Court ruling meant that the basic population count for apportionment would be traditional in both ways the term was being used. The Census Bureau planned accordingly.

### A User-Friendly Census

In dozens of ways, the 2000 Census was more user-friendly than ever before. Advanced technology based on intelligent character recognition facilitated improvements in questionnaire design. This technology was used in data capture, or the process of transferring information from a census form to a usable data file. Historically, census forms came into data capture centers where hundreds of people manually transferred the information to whatever the current tabulation medium was—paper, punch cards, or computer tapes. This human transfer is prone to error. These errors can be minimized by designing forms that are easy to code, but there is a catch. A design made easy for data capture has features that make it more difficult for the person filling in the form. Questionnaire design involves trade-offs.

In 2000, for the first time, data capture was based on digital scanning, which permitted forms that are easy to fill out without worrying about how hard they would be to code. This was part of a "keep-it-simple" rule set by the bureau's director, Martha Riche, early in planning for the 2000 Census.

Questionnaires were printed in five commonly used languages in addition to English, and telephone assistance centers were multilingual, as was the enumerator staff that went door-to-door. Every household received three mailings—an advance notice, the census form itself, and then a postcard thanking respondents and reminding others to return the form. (These outreach efforts got results: One person even returned a 1990 form, found in the bottom of a desk drawer, with a note saying she hoped she was not too late.)

Multiple languages and multiple mailings were combined with multiple ways for the public to respond—by mail, by phone, by Internet, or by going to a walk-in assistance center. For those who felt that they had been missed, there were "Be Counted" forms placed in community centers and other convenient locations. Providing multiple ways to respond increased the risk of including some people twice, and in the next section we discuss duplicates in the 2000 Census.

### Paid Advertising

We mounted an extensive, targeted paid advertising campaign to increase public awareness and to encourage high rates of cooperation. Previously the Census Bureau had relied on free public service ads that typically ran late at night and could not be pitched to particular groups. Census 2000 had the benefit of paid promotional advertisements carefully designed to reach hard-to-count population groups, and it took advantage of every major outlet—TV, radio, newspapers, magazines, billboards, placement of posters in buses, and dozens of other high-visibility spots. Even the most expensive ads were not out of reach; for example, a well-received census ad ran during the Super Bowl in January of 2000. The advertising budget, $165 million, was second in size only to McDonald's and Wendy's during the early months of 2000.

A leading Madison Avenue advertising agency, Young and Rubicam, designed the campaign, working closely with specialty firms experienced in reaching African Americans, Hispanics, Asians, American Indians, and immigrant groups. The ads appeared in more than 50 languages. Independent evaluations gave high marks to the quality of the advertising copy and to the effectiveness of the campaign.

Every ad included a facsimile of the census form itself, along with the tag line "This is your future, don't leave it blank." Ads emphasized that cooperating with the census would benefit one's own community in tangible ways—less crowded schools, more public transportation, better emergency service. The not-so-subtle message was that an uncooperative community would get less than its share of publicly funded benefits. One proposed ad, not used because we felt it was perhaps too blunt, showed a tax form and a census form side-by-side, with the message: "This form taketh away. This form giveth back."

### Partnerships

The Census Bureau established an unprecedented number of partnerships with state and local governments, community groups, and businesses—140,000 in all. Nearly 12,000 were Complete Count Committees that engaged state, county, and city government officials in promoting the census; 60,000 volunteers staffed community sites in churches, schools, clubhouses, and similar meeting places where "Be Counted" forms were avail-

able. A school program placed census-related curricular material and lesson plans in thousands of classrooms. Churches promoted the census. The Catholic Church was especially active in reaching out to recent Mexican and Central American immigrants, stressing that census answers were confidential. Census vans, first seen on NBC's Today Show, toured the country, visiting fairs, sporting events, hard-to-count neighborhoods, and other places where they would be covered by the local media.

Special events and promotional efforts numbered in the many hundreds across the nation. In addition to the Census Bureau's own partnership budget of $143 million, promotional dollars were contributed by hundreds of local and state governments and by private businesses and other groups. California alone had a state budget of $35 million to promote Census 2000. A few specifics illustrate the range of promotional efforts and donated contributions through this partnership program:

- McDonald's in Detroit rewarded homeless people who completed a form with a free meal and a yellow button saying, "I'm Important, I've Been Counted."
- Radio Fiesta, a network of 20 South Florida stations, aired a special series of announcements that reached 100,000 migrant and seasonal workers.
- The Carolina Panthers of the National Football League gave free exhibition space at their home games, allowing census workers to reach tens of thousands of football fans throughout North and South Carolina.
- Milwaukee spent $350,000 on its "I Will Count in Census 2000" campaign, one of hundreds of instances where state and local governments spent their own funds on census promotion.
- Univision, the Spanish-language TV channel, carried a national broadcast of a census Mass at the San Antonio Cathedral, where the archbishop, the local congressman, and I spoke.
- The Navajo Nation hosted a Tribal Leadership Conference to promote census cooperation and to help recruit Navajo-speaking enumerators.
- The Goodyear Blimp displayed census messages during its nighttime flights across the Southern California sky.
- New York City funded a special Black Advisory Committee, bringing together African American, Caribbean American, and recently arrived immigrants from dozens of African countries, which organized promotional activities with grassroots groups and churches.
- Unalakleet, a remote Alaskan village on the edge of the Bering Strait, served a huge community meal, including whale blubber and other local foods, to journalists from the *New York Times*, the *Washington Post*, *USA Today*, and dozens of other media that had arrived to cover the first person to be enumerated in Census 2000.

If the scope and magnitude of this partnership effort was unprecedented, so was an invitation to thousands of organizations to help conduct the census. There were risks in blurring the boundary between a tightly controlled, quality-focused statistical operation by trained professionals and an often enthusiastic and spontaneous effort geared to local interests. For example, the Census Bureau had strict criteria for who would be hired to staff its local offices, but in a tight labor market, it asked partners to help recruit workers. People put forward by partner organizations did not always meet the recruitment criteria, and some had to be rejected. To ask for help and then not take it made for some strained relations. In one large Northeastern city, the mayor—a big census booster—wanted to appoint city census watchers on every block who would pressure the nonrespondents to cooperate. He asked the bureau to tell his workers who had not mailed a form in, and it took more than one exchange to convince him that laws guaranteeing the confidentiality of census responses, including no response, absolutely prohibited us from sharing any information with his census watchers. Then there were congressional concerns that a business or, in one instance, a political party, was misappropriating the census logo in a manner suggesting that its product, or candidate, was being endorsed by the Census Bureau. The bureau widely distributed its materials, including a website where they could be downloaded, and could not, in the final analysis, control how they were used in hundreds of promotional events.

On balance, however, the partnership effort was a rousing success. It gave many communities a stake in how well the census was conducted, and it educated the public about the importance of the census and its results. Over time, this will increase the public's use of census information.

Above all, the partnership program served the basic goal—it contributed to a higher percentage of households returning the census form by mail than was expected (see next section). Even the habitually cautious GAO, which audited the census partnership program, concluded that "it appears as though key census-taking activities, such as encouraging people to return their questionnaires, would have been less successful had it not been for the bureau's partnership efforts."[15] Readers knowledgeable about the GAO's obligation to find and report poorly

invested tax dollars and mismanagement by executive branch agencies will recognize this as welcome praise.

The user-friendly innovations and the partnership and advertising efforts were elaborations and extensions of traditional census methods focused on improving levels of census cooperation and reducing the differential undercount. Of particular importance was halting the two-decades-long decline in the percentage of households that returned the form by mail. We noted that there had been a 10 percent drop between 1980 and 1990, and the bureau feared that 2000 would continue this sharp decline.

## Public Cooperation With the 2000 Census

Whether the public mails back the census form has significant repercussions for data accuracy and census costs. A low mail-back response rate reduces census accuracy because many forms are then completed weeks after census day. Errors increase because memories fade. It is easy for a householder who moved into a vacant house shortly after April 1 to have forgotten his move date and to answer an enumerator in June that yes, he had lived there on April 1. Thus a location vacant on April 1 is incorrectly recorded as an occupied house. Or, in households with a lot of coming and going, perhaps by transient workers or part-time students, it is easy to mis-recall several months later about who was there on April 1.

A low mail-back rate also drives up costs sharply. Census takers make up to six visits to every household that does not return a form. There are high salary, transport, and management costs in this nonresponse follow-up effort. In the initial planning for the 2000 Census, the bureau feared a mail-back response rate as low as 55 percent. In the early 1990s, it conducted studies on how to keep the rate from slipping further. Some studies led to the "keep-it-simple" principles discussed above. Another suggested that the mandatory nature of the census should be emphasized. Though it is the law that everyone has to complete a census form, this had not been stressed in recent censuses—for fear of alienating parts of the population. But with the response rate plummeting, and on the basis of evaluation studies, the bureau decided that the legal obligation should be emphasized in 2000. Based on these and other modifications, the bureau revised its expected mail-back response rate for the 2000 Census to 61 percent.

With this estimate in mind, the bureau presented its budget requests and began the mammoth task of recruiting a census staff that would eventually number a staggering 900,000 office and field workers. If the response rate fell below 61 percent, the bureau would face budget and staffing problems. If it unexpectedly climbed above that rate, even by 1 percent, pressure in the critical follow-up period would lessen. With an address file of 120 million residences, 62 percent rather than 61 percent mail-back is 1.2 million fewer households to visit.

### "1990 Plus 5 percent" Campaign

As the census got underway, we launched a special "1990 plus 5 percent" campaign (called the "get it up" campaign by some census staffers). This was the challenge to every city, county, and state in the nation to improve its 1990 Census response rate by 5 percent. This ambitious campaign declared that the nation should not only stop the declining cooperation rate but actually reverse it. No one knowledgeable about the changing attitudes and lifestyles in the population really expected the response rate to reach this target, but it was hoped that the special campaign could at least keep it from falling below the budgeted target of 61 percent. The key strategy was to report day by day to 39,000 jurisdictions in the country—villages, towns, cities, Indian reservations, counties—what its own mail-back "score" was, one of the very few procedures added late in the census process (to satisfy the director). Untested procedures introduced late in a census are high risk and generally avoided. The special "1990 plus 5 percent" campaign required heroic efforts by headquarters staff.

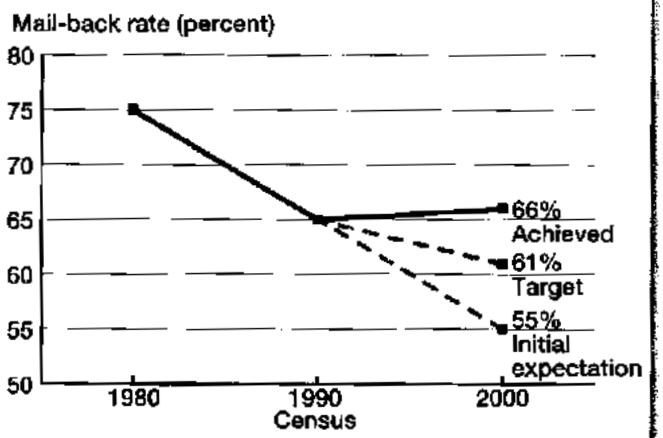
The day-by-day scores were widely cited in the press, with *USA Today* reporting the national totals as well as the response rate for each of the 50 states. Cities competed with each other, and at least one case of wine passed from a mayor to his colleague in a neighboring town whose rate came in higher. I entered a friendly wager with the bureau's major inspector from the GAO, who doubted that we could exceed the 1990 rate. (When he lost, he graciously agreed to donate my modest winnings to National Public Radio for its excellent coverage of census issues.)

The early days of April were a tense time in the Census Bureau. If the target of 61 percent mail response was not reached, the next phase of the census—the field-based nonresponse follow-up—would be understaffed and more expensive than planned. And even if that target were reached but the nation fell short of the 1990 rate, the huge promotional effort would have failed.

The news trickled in as hundreds of trailer trucks delivered the mail to four data capture centers around the country. Our anxious waiting turned to relief and then to elation. Two-thirds of America's households had mailed in their form by the date when the bureau

*Figure 2*

**MAIL-BACK RESPONSE RATE: TARGET AND ACHIEVEMENT***




*See Box 5 for an explanation and comparison of the response and the return rate.

had to start its field operation of nonresponse follow-up (see Figure 2).

In fact, the news was much better than we knew at the time. The denominator for the initial response rate is the number of addresses to which a form is delivered. At the time of the census, the master address file includes an unknown number of vacant houses and apartments. When the bureau has completed all its many quality checks, it determines how many addresses on the file represented occupied households. With this as the denominator, it calculates a final return rate (see Box 5). In 2000 the return rate was 78.4 percent, well over three percentage points higher than the comparable number in 1990.

We had not only stopped the three-decade decline in cooperation, we had reversed it. Harvard professor Robert Putnam, author of *Bowling Alone* and the nation's leading commentator on civic disengagement, congratulated the bureau for defying the odds, remarking that we had "managed to run up the down escalator." The combination of the keep-it-simple strategy, partnership program, advertising campaign, and feedback about response rates had been successful far beyond expectations. When we saw the final return rate, we realized that the nation came close to meeting the extraordinary challenge of improving its cooperation by the "1990 plus 5 percent" goal we had set.

### Targeted Publicity

Survey evidence confirms that the promotional efforts had increased census awareness, motivated cooperation, and reached the targeted hard-to-count population groups. During the phase of maximum publicity, the portion of the population aware of the census climbed to nearly 90 percent (see Figure 3, page 32).

Racial minorities were more strongly influenced by the campaign than were others, confirming that the effort to target publicity had worked. Higher levels of exposure increased levels of census cooperation especially among African Americans and Hispanics (see Figure 4, page 32).

A mail-back response rate that exceeded expectations was welcomed in all quarters, but there were still

*Box 5*

**WHY THE RESPONSE RATE DIFFERS FROM THE RETURN RATE**

Response Rate = Percentage of all households on the master address file, whether occupied or not, that mail back the form.

Return Rate = Percentage of households occupied on census day that mail back the form.

In preparing for and then conducting the census, we harped on the response rate, the percentage of households sent a form that they mailed back in. Often we stressed that this rate had fallen in recent decades, most sharply from 1980 to 1990 (by 10 percent). In an effort to motivate cooperation in 2000, I often said that "only 65 percent" had mailed their forms back in 1990, and then pleaded that doing better in 2000 would prove that Americans took civic responsibility seriously. That endlessly repeated fact about the 1990 response rate is true, but it is not the whole story. When the master address file is compiled, the Census Bureau does not know which houses or apartments are occupied. It is not until a form has been delivered, not returned, and there has been a personal follow-up that the bureau learns if a given residency is occupied or vacant. It takes many months to complete all the checks required to determine how many households are vacant on census day, which can be as many as 10 percent of the residences in the United States. After vacancies (and other address errors) are subtracted, the Census Bureau has a list of valid occupied households. Using that as the denominator, it recalculates the mail-back return rate. This corrected calculation is a more meaningful indicator of civic responsibility. In 1990 it was 75 percent, or 10 percent higher than the initially announced "response rate." But of course as Census 2000 got underway, we again were forced to talk about the response rate—it was the only measure available to compare 1990 and 2000 as the census was being conducted. Long after the census had disappeared from public view, the bureau completed all its evaluations and determined that the final return rate in 2000 was 78.4 percent, significantly higher than the comparable measure in 1990.

*Figure 3*
**LEVEL OF CENSUS AWARENESS, 2000**

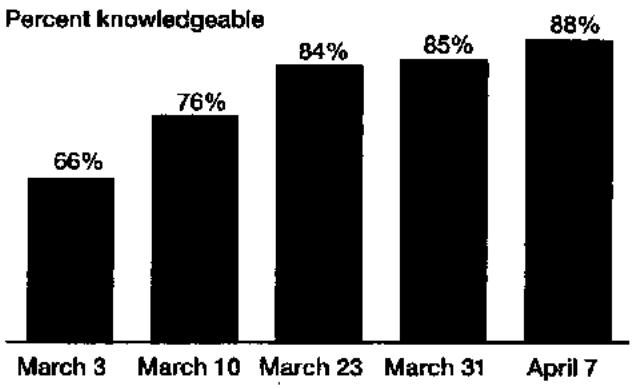
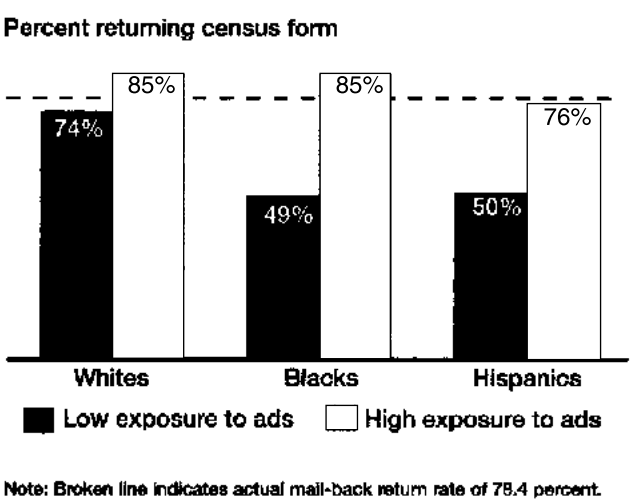



*Figure 4*
**SUCCESS OF TARGETED ADVERTISING: MAIL-BACK RESPONSE RATE, BY RACIAL/ETHNIC GROUP, 2000**




40 million households to visit. Moreover, we knew that however important it was to improve cooperation with the mail-back phase of the census, success in eliminating the differential undercount was the outcome that mattered politically.

## Summary

When the Supreme Court ruled that statistical adjustment could not be used for the basic apportionment numbers, it put in motion an extraordinary and well-funded effort to conduct the best traditional census in history, including an unprecedented advertising and promotional campaign. This effort exceeded its first target—to convince a higher proportion of the American population to mail their census form back than had done so in 1990.

But the inescapable fact about census taking is that it can be a huge success for the vast majority of the population yet still have an undercount that differs from one population group to another. This can be illustrated hypothetically:

**There are 120 million households, of which**
**90 million mail back their forms, leaving**
**30 million to be visited by enumerators, of which**
**28 million cooperate, leaving**
**2 million households not in the census, of which**
**1.5 million are racial minorities.**

In this hypothetical census, a small percentage of the households are missed, but those missed are disproportionately concentrated among minorities. The differential undercount is a stubborn problem, and in the next section we ask whether a census relying only on traditional enumeration methods can eliminate it.

# WHO DECIDES WHICH COUNT COUNTS

Table 5 (page 25) showed that the Supreme Court ruling on Census 2000 prohibited sampling for apportionment but not for redistricting, allowing for the possibility of two census counts.

It is understandable if the reader is asking, "How can there be two population figures?" The answer is: In the same way that there can be two, or more, drafts of a text. Any census is a process of successive approximations and refinements, each an improvement over the preceding one. For example, early results from the census are known to have duplicates—the student who is counted both by the parents and by the college dormitory, the child shuttled between separated parents and counted by both. If the Census Bureau can find those duplicates before releasing results, it of course takes them out. This is but one of several such quality checks. Each of them modifies the census, until time runs out and official population numbers are produced.

Time runs out differently for different census purposes. By law, the Census Bureau has to produce the apportionment results within nine months of census day, or by Dec. 31. This is the raw count of how many residents there are in the United States and how they are distributed across the 50 states. These initial num-

bers tell us nothing about the characteristics of the population—how many men and women, young and old, urban dwellers and suburbanites.

The redistricting data are more complex. To carry out redistricting requires assigning each resident to an address on a specific block. The data also indicate age, race, and gender. This more detailed information takes longer to produce, and the census has an additional three months to produce redistricting data. Even more time is needed to provide data used for federal funding and for general public use because these data products are successively more refined.

In fixing on a design after the 1999 Supreme Court ruling, the bureau built the most robust traditional census possible—which by the end of 2000 would produce population totals for the nation and the 50 states to be used for congressional reapportionment. But the census was not then finished. An evaluation of the results from the post-enumeration survey would determine if dual-system estimation could improve the results to be used for redistricting and/or fund allocation.

It was this possibility that sustained the partisan battle until early 2001, when the decision about adjusting the census for redistricting purposes was scheduled.

The Supreme Court ruling, probably unintentionally, led to a situation unprecedented in U.S. history. Congress appropriated funds to conduct the best full-scale traditional census possible, while at the same time the court ruling left in place a methodology for potential statistical adjustment. The political and practical uncertainty was whether the well-funded traditional census would be so thorough no adjustment would be necessary, or whether there would still be a differential undercount that required adjustment.

## Scientific Recommendations

At the center of both the science and the politics of the census remained the differential undercount. The more completely a given group is counted by the census, the greater its voice in presidential elections, Congress, state legislatures, and local governments. The Census Bureau cannot escape the fact that democratic fairness is affected by how well it does its job, which of course is why discovering the differential undercount initiated the long, technically challenging task of trying to fix it. The task did not get easier in a half-century of statistical work, because the groups likely to be missed in the census steadily grew proportionately and because census taking grew more difficult in our mobile, preoccupied, and civically disengaged society.

Risking oversimplification, we label a traditional, enumeration-only census "good" if it reduces the differential undercount; we label a post-enumeration survey "good" if it accurately measures the proportion of various groups who are missed and erroneously included. There were four possible outcomes in Census 2000:

1. **Good Traditional Census* and Flawed PES**
2. **Flawed Traditional Census and Good PES**
3. **Good Traditional Census and Good PES**
4. **Flawed Traditional Census and Flawed PES**

*An undercount is a net number and is zero if the undercount and overcount are equal in size, even if both are very large. Thus a census with a large number of gross errors can be labeled "good" by the criteria used here, but it would not overall be a good census.

Before the census results were known, in a number of political and scientific meetings, I announced that if the outcome were number 1, statistical adjustment would not be used. If the outcome were number 2, adjustment would be used to improve the raw census counts for redistricting data and other census purposes. I said that how to proceed under outcomes 3 and 4 was less clear because there is a difficult statistical judgment about whether adjustment in these cases introduces as much error as it removes.

The outcome of the 2000 Census confounded the expectations of many, including me. The Census Bureau discovered serious technical flaws when it attempted to match the results from the post-enumeration survey to the raw census. It also learned, later in its evaluation, that the well-funded traditional census had erased the net undercount, even producing a small net overcount.

Not all of this was clear to the bureau in the frantic weeks of early 2001, as it faced the looming deadline of March 31 for releasing the redistricting data. During this period, the bureau's statisticians struggled to understand a large discrepancy between the census, if adjusted by PES results, and the independent estimation of the population size from demographic analysis. This discrepancy led the professional staff at the bureau to conclude that, at least within the time available, statistical adjustment would not improve the census results. This was an unexpected turn in the decade-long political controversy, but there is more to the story.

Although the reasons for this intense political focus on sampling and statistical adjustment have been set forth, the reader might still be perplexed by a lingering anomaly. Why is it only adjustment methods and not other statistical procedures that have so exercised the political process? Adjustment is not the only statistical procedure that affects the final census results.

While it decided not to recommend adjustment, the Census Bureau did proceed with two other statistical

procedures that affect final census results and consequently influence where boundaries are drawn. One such procedure is imputation, which occurs when an enumerator has strong evidence that a house or apartment is occupied but is unable to retrieve any information—for example, an apartment where a newspaper is delivered and neighbors report that late at night they hear someone enter or leave, but repeated visits by an enumerator never find anyone home (or willing to open the door). The bureau then statistically imputes how many people live here based on characteristics of neighboring households. If every other apartment in this building is occupied by a single resident, it is reasonable to assume the same for this nonresponding apartment. This imputation makes for an overall more accurate census than if the apartment were recorded as vacant.

The Census Bureau has used statistical imputation for a half-century, and it is a practice common to census taking around the world. In the 2000 Census, imputation increased the final population count by 1.1 million, or about a half-percent. Imputation disproportionately increased the numbers of population subgroups, such as urban racial minorities, which were the focus of partisan battles over statistical adjustment.

Another quality control procedure with similar ramifications was the removal of suspected duplicates from the census file. The Census Bureau worried that the many different ways in which a census form could be submitted would lead to duplicate responses. In the summer of 2000, well before the final apportionment count, the bureau identified approximately 6 million forms suspected of being duplicates. It matched these forms as best it could—was Susan Mullin at 112 Price, Apt. 6, the same person as S. Mullin at 112-114 Price Street, 6th floor? If Susan and S. were the same gender and the same age, they were judged to be duplicates. If they were different genders and different ages, they were treated as different people. But what if they were both female, but Susan was 40 and S. was 41? Is that a big enough difference to judge them different people? In the time available, it was not possible to revisit Price Street and the other 6 million suspected duplicates to be sure. A computer-based de-duplication algorithm was used: 3.6 million of the suspected duplicates were deleted from the census; the other 2.4 million were considered legitimate responses and remained in the census.

Imputation and de-duplication are procedures with as much potential as statistical adjustment to impact apportionment, redistricting, federal fund allocation, and other uses of the census. The census unfolds as a series of quality-control efforts which, it is expected, progressively bring the census closer to the true number and characteristics of America's resident population. Like other quality-control procedures, statistical adjustment is, in the view of the Census Bureau, to be used if it improves the census results, not if it fails to.

In Census 2000, the bureau examined statistical methods designed to improve the census; it applied them if, in its professional judgment, they would increase accuracy. Two of these methods—imputation and de-duplication—combined to account for 3.5 million records in the final census, more than what was at stake in the statistical adjustment battle. Why were two significant statistical procedures left to the discretion of professionals while another was handled politically?

The answer can be traced to lawsuits trying to force the 1980 Census to be adjusted, despite the statistical reservations of the Census Bureau, and from there to the unfortunate language used by the secretary of commerce after the 1990 Census, when he opined that the adjustment method could lend itself to manipulation for partisan advantage. Sampling in the census became political ideology, for both parties—Democrats seeing a census without sampling as undemocratic and Republicans seeing one with sampling as unconstitutional.

Sampling, or more correctly dual-system estimation, is of course not a political ideology. It is a statistical method intended to make the census more accurate, one that the Census Bureau has now evaluated in three censuses. In each, there were technical difficulties, and its future in census taking is much in doubt.

## Political Process

The most politically visible census results are the state-by-state numbers that apportion congressional seats. At 10 a.m., on Dec. 28, 2000, I delivered the results to the secretary of commerce—the first time they were seen by anyone outside the bureau. The secretary immediately transmitted them to the president of the United States, and less than an hour later, the secretary and I presented the Census 2000 results to the nation at the packed National Press Club.

No one so much as suggested that the national and state-by-state census results might be reviewed in advance by the secretary, the president, or congressional leaders. There was no opportunity for anyone to instruct the bureau to modify the census by not using imputation or the algorithm that removed suspected duplicates. The apportionment numbers were announced exactly as they emerged from the procedures applied by the bureau.

Two months later, the statistical adjustment decision was handled quite differently. Recall that in 1980 it was the Census Bureau itself that decided against statistical adjustment. In 1990 it was Secretary Mossbacher who made the decision. Assigned that authority in a legal compromise, he overruled his own Census Bureau director.

As the 2000 Census got underway, neither William Daley, then secretary of commerce, nor I, then Census Bureau director, wanted a repeat of 1990. In the summer of 2000, Daley prepared an executive order assigning full and final authority over the release of all census results, including the decision whether to adjust statistically, to the director. This executive order was issued prior to the election of 2000, and no one knew who would be in the White House or who would be the Census Bureau director by March 2001, when the decision about statistical adjustment of the results for redistricting would be made.

When President George W. Bush took office on Jan. 20, 2001, I was immediately replaced by an acting director. Dan Evans, a close associate of the new president, became the secretary of commerce. One of his first acts was to rescind the executive order issued several months earlier. He announced that he would make the final decision about statistical adjustment, calling on advice from statistical consultants of his choice. When the Census Bureau, for technical reasons noted above, recommended against adjustment, Secretary Evans quickly accepted the recommendation. It is unknowable whether he would have overruled the bureau had it recommended adjusting the redistricting data file.

What is certain is that the secretary treated the results differently from every other major statistical product produced by the federal government; he asserted his political right to make the final decision.

The ramifications of this extraordinary assertion are clear if we again consider how the initial census results for apportionment were reported. They were under the sole control of the Census Bureau. If it had been otherwise, if in December of 2000 the Democratic secretary of commerce had asserted his authority to review the state-by-state apportionment counts before they were announced, had brought in his own experts, and had then decided whether to allow the imputation methodology, there would have been a political firestorm. And there should have been. In principle, it was possible in December 2000 for the secretary, or for the president himself, to see that imputation rates shifted the 435th congressional seat from Utah to North Carolina (see Box 6). Had the secretary told the Census Bureau to remove the 1.1 million imputed cases from the census file, Republican leaders and the press would, with reason, have charged political bias. I would have resigned in protest at the compromising of the bureau's independence. This level of political interference did not, obviously, occur. No one even thought of it.

*Box 6*

**IMPUTATION GOES TO THE SUPREME COURT**

**It emerged after the 2000 Census was completed that the imputation procedure shifted a congressional seat. A higher rate of imputation in North Carolina (0.42 percent) than in Utah (0.25 percent) handed the former the 435th seat in Congress. Utah sued to have all imputed records removed from the census. If it won this case, its congressional delegation would increase from three to four, and North Carolina would lose a seat. The case reached the Supreme Court, where, to the relief of statisticians, the Republican administration successfully defended imputation. It is one of the ironies of Census 2000 that the political party that for decades had fought statistical adjustment as an inappropriate method for improving the census now defended a method that also, statistically, improved the census, and this despite the probability that their court victory cost them an additional Republican seat in the House from Utah.**

Nor has interference like this ever been attempted with other key statistics. The Bureau of Labor Statistics does not first show its unemployment rate to the secretary of labor and then defer to his or her political judgment about what method should be used to calculate it. Should that happen, public confidence in this vital number would be shaken. If health and education statistics were routinely subjected to political review before they were announced (as they were in Communist Russia), the nation would never know if it was being given a true reading of social conditions or one that satisfied whatever political party happened to be in power.

The nation's statistical agencies operate under a strong system of safeguards designed to insulate them from political pressure. These safeguards, codified in formal statements of principles and practices, cover such issues as methodological transparency, standardization and predictability in release of data products, open dissemination, protection of respondent confidentiality, forthrightness about error structure, ethical standards to prevent misuse of data, and independence from political influence or manipulation. It is seriously troubling that these principles were not fully adhered to with respect to the census adjustment decision in 2001 (see "Politics and Accuracy—A Personal Comment," page 36).

With the political story behind us, we return to the science of Census 2000 and ask what happened to the undercount.

### Politics and Accuracy—A Personal Comment

The census was politically radioactive in 2000, and it may remain so. Is the science of census taking, then, imperiled? Not necessarily. But the science has to be designed and applied in the light of some distasteful political realities. These included, in 2000: the political manipulation of symbols for partisan gain; a frequent disregard of inconvenient facts; an oversight process that occupied time and resources hugely disproportionate to what it achieved; and an atmosphere of suspicion surrounding a scientific agency.

These realities notwithstanding, I left the directorship convinced that census science can be made to work as it is intended. I also left with a clearer sense of the director's responsibility in this regard. Although he or she is appointed by the president, and confirmed by the Senate, the director must be resolutely nonpartisan. In retrospect, I see instances where I fell short—for example, in sometimes describing the adjustment process as "correcting the census," thereby implying that an unadjusted census would be incorrect. Using the phrase suggested that those who opposed adjustment wanted an incorrect census. Perhaps the phrase worked as political spin, but it was scientifically misleading. Such lapses (I hope few in number) made it more difficult to claim what is in fact true, that census methodologies are selected for their scientific and not political properties.

A much-needed reform could help further insulate the director from the political battles of the moment. At present the director has no fixed term, but serves at the pleasure of the president. Representative Carolyn B. Maloney, formerly senior Democrat on the House Census Oversight Subcommittee, has introduced a bill (HR 1571), which would set a five-year fixed term for the director. If a fixed term were to start in a year ending in "7" or "2," no president could dismiss the director in midcensus—as I was when President Bush came to office. This would signal that the Census Bureau directorship is a scientific rather than a political position, as is the case for the head of other statistical agencies such as the Bureau of Labor Statistics, as well as for the director of the National Science Foundation and of the National Institutes of Health. These too are presidential appointments but all with fixed terms. In fact, among all high-level presidential appointees with scientific responsibilities, the Census Bureau director is unique in not having a fixed term.

A more ambitious reform, and one that I urge, would be to make the Census Bureau an independent agency, reporting directly to the president. It should then have a prestigious and bipartisan national board, similar to that of the National Science Foundation. This would insulate it from the sometimes shortsighted partisan fights than can so easily capture congressional debate, and it would bring American practice in line with Great Britain and Canada, countries with high-quality, nonpartisan, and politically independent census taking.

I emphasize the importance of greater institutional independence because I reluctantly have concluded that both of America's major political parties would, up to a point, sacrifice census accuracy for partisan advantage. This is a serious accusation, which I put this way: A political party believing that a slightly less accurate census would guarantee its control of Congress for a decade will want that census—rationalizing that, after all, the census falls short of accuracy anyway, so what's another percent or so? I doubt that I am alone in this suspicion; it seems clear that the leaders of each party believe that the other party would, if it had the chance, cheat with census numbers.

If my suspicion is correct, it is the Census Bureau, certainly including its director, that must finally insist that census accuracy, however elusive, be the only standard against which its scientific methods are evaluated. Of course the Census Bureau does not stand alone; protecting the integrity of the nation's statistical products is a cause joined by all federal statistical agencies and by the Office of the Chief Statistician. There are times when the standards by which the professional staff of these agencies do their work are not welcomed by their political bosses, but the job of the scientist-in-government is to let the facts speak for themselves no matter the political fallout.

The refusal to compromise scientific and professional standards in government work extends well beyond statistics—it matters when testing the feasibility of missile defense systems, when deciding if a new drug should be released, when predicting the consequences of climate change, when evaluating Head Start, when selecting a method to store nuclear waste, when writing an intelligence report on terrorist threats. The tension between politics and science in census taking is but one among many instances where short-term political gains cannot be allowed to overrule the best facts that science can offer.

## Sampling, Statistical Adjustment, and the 2010 Census

The end result, after the scientific recommendations were made and the politics played out, was that the undercount had become an overcount. After two years of evaluating its work, the Census Bureau announced in March 2003 that its best estimate for the 2000 Census was an overcount of a half-percent. The ambitious traditional census had counted 5.8 million people twice and had missed 4.5 million people, for a net overcount of 1.3 million.[16]

These final calculations showed something even more remarkable—a significant improvement in reaching members of racial minorities (Table 6).

For a half-century, the census had reduced the net undercount without making headway on the differential rate at which minority groups were left out of the count. The money put into a huge effort in 2000 to reach the hard-to-count paid off. The African American undercount was reduced by more than half, and for Asians, Hispanics, and American Indians, the undercount vanished.

This long-sought outcome came at a price. On the principle that no good deed goes unpunished, the sustained effort to eliminate the undercount had created its opposite: an unacceptably high number of duplicates. From the perspective of democratic fairness, replacing an undercount of minorities with an overcount of the white population is not progress. With whites overcounted at 1.13 percent, and blacks undercounted at 1.84 percent, the white/black differential remained nearly 3 percent.

An ambitious traditional census runs the risk of double-counting too many of the easy-to-reach because, with multiple ways of being included in the census, the population groups most likely to have duplicate responses are also those most likely to be included in the first place.

Looking to the future, the challenge is to correct the overcount problem without allowing minority undercounts to revert to earlier levels. The Census Bureau is now working on ways to avoid duplicates in future censuses. It does not, however, plan to use statistical adjustment in this effort. When the bureau concluded that, because of technical problems the 2000 Census results should not be adjusted, it also decided to leave dual-system estimation out of its plans for the 2010 Census. Director Louis Kincannon, responding to a question by congressional Democrats, wrote in June 2003 that the Census Bureau has concluded that "science is insufficiently advanced to allow making statistical adjustment" in the time frame within which redistricting data have to be released.[17]

This implies another expensive census in 2010. Census taking is not going to get easier—on the contrary, the hard-to-count groups are a growing proportion of the population as a whole, just as the number of two-home families, unconventional household patterns, and other conditions contributing to duplications are growing.

There is a limit to how much the country will (or should) pay for census accuracy. There is a trade-off between costs and quality of census data, just as there is a trade-off between expenditures on highway safety and traffic deaths, or expenditures on education and literacy rates. If it were given the entire federal budget, the Department of Transportation could reduce traffic deaths to near zero. Similarly, the Census Bureau, given the entire federal budget, could reduce census errors to near zero. But trade-offs between traffic safety and census accuracy, to say nothing of defense, public health, and dozens of other needs, have to be made. At a certain point, increases in the quality of census data are not worth the significant marginal costs of trying to achieve that last 1 percent of accuracy.

*Table 6*
**CENSUS UNDERCOUNT OF MINORITIES IN 1990 AND 2000**

| | 1990 | 2000 |
|---|---|---|
| African American | 4.57 percent | 1.84 percent |
| Asian | 2.36 percent | * |
| Hispanic | 4.99 percent | * |
| American Indian | 12.20 percent | * |

* Calculated rates were not statistically different from zero. Rates for both 1990 and 2000 are based on post-enumeration surveys.

At a budget level that should reasonably be expected, the census will have errors. The well-funded census in 2000 had errors: it still missed 4.5 million people and double-counted 5.8 million. Those missed were disproportionately racial minorities, the poor, single householders, and immigrants, and those included twice were disproportionately college students, people who own two houses, and others among the well-off.

The partisan political positions that were so aggressively staked out in Census 2000 have been temporarily muted by the decline in the undercount, but not permanently erased. Whether they reappear will depend on the level of confidence in the census methodology planned for 2010 and whether differential undercounts return to earlier levels after that.

## AMERICAN DEMOCRACY AND THE CENSUS—LOOKING AHEAD

On July 25, 2000, a Republican congressman from Tennessee, John J. Duncan, addressed his colleagues:

*"Madam Speaker, the Census Bureau is proving that it is another arrogant federal agency with a power-mad, public-be-damned attitude. Despite the huge public outcry against the personal, intrusive questions on the census long form, the bureau wants to keep prying with the same or similar personal questions on the form called the American Community Survey to be sent to 250,000 homes each month. The lame defense of questions on the long form was that these questions had been approved by Congress and that they had been asked before. Well, Congress never had a vote on specific questions, and no member saw those questions beforehand except possibly a few on the Subcommittee on the Census. Also, if those nosy personal questions were asked in the past, it was*

*before the federal government got as big and out of control as it is today and before the age of the Internet. I guess with the computer-controlled society we have today, true privacy is a thing of the past. But the Congress should offer at least a little resistance and not allow the Census Bureau to keep butting its nose into areas that should be none of our federal Big Brother's business."*[18]

Setting aside the congressman's ignorance of how questions appear on the census form (by law, all proposed topics are submitted to the entire Congress three years before census day, and then every specific question is resubmitted, again to the entire Congress, two years before census day), his comments bring to attention both new and old issues central to the role of the census in American democracy.

## Privacy, Confidentiality, and Census Taking

For as long as information has been collected, there has been concern about privacy and confidentiality. Privacy is about what can be known—it shrinks when record keeping or surveillance expands against our will, which includes of course the census asking questions considered intrusive. Confidentiality is about what can be shared—it shrinks if information, from medical records to bank transactions, from school grades to census answers, is given to others without our permission. Think of privacy as "don't even ask that question," and confidentiality as "don't tell anyone else what I just told you."

The census occupies a unique place in the public's uneasiness about violations of privacy and confidentiality. The questions the government insists that you answer go far beyond the minimum needed to count the population. In the very earliest censuses, Thomas Jefferson and James Madison wanted to add a question about occupation so that the new government could better know "the conditions of the people" and thereby make more intelligent policy. Census questions on many topics were steadily added across the 19th and 20th centuries, for a simple reason. Once a staff is sent to the field to conduct the basic enumeration, obtaining useful additional information has low marginal cost.

What Jefferson and Madison proposed more than 200 years ago was based on their view of what distinguished a democracy from an autocracy: In an autocracy, the government makes policy through edicts, whereas in a democracy, it must give reasons for its policies. Here we glimpse an important proposition about information in a democracy. The reasons given for one policy over another are founded on inquiry. This premise is evident in the power granted to Congress to hold hearings and to investigate but is also apparent in government data collection and record keeping.

It is a cliché that politicians are fond of anecdotes and rely, perhaps too much, on their personal experiences. But when they turn to the tough task of offering policy solutions to social problems, they seek out information about the shape, scope, durability, and trajectory of the conditions causing the problem. The growing number of elderly without insurance is given as a reason to reform health policy; the educational success of parochial schools leads to arguments on behalf of school vouchers; new patterns of traffic congestion are cited to justify highway construction. A government without information is unable to explain its decisions; it fails a test of democracy.

There is more to the interplay of information and democracy. As American democracy matured, statistical information took on enormous importance not only in making the society legible to the government, but in the reciprocal of this. Information tells the public what its government is doing, or failing to do. The idea of electoral accountability is about candidates competing for votes by offering conflicting views on how well the government in power has performed. This powerful model of democracy presumes that the voters have a basis on which to assess government performance. Statistical trends can be this information. Is the economy growing or stagnating? Are education, health, or housing conditions improving? Is the crime rate up, or down? Are water and air cleaner than they were? Is the war on terrorism being won? Back and forth claims about who can take credit for improvements, or should be blamed for failure, are the currency of competitive elections. The indicators cited, more than is generally understood, come from the large federal statistical system, at the core of which is the census.

In a democracy the people should know as much about their government as it knows about them. For this reason our government (usually) goes to great lengths to make its official statistics easily available. And the Freedom of Information Act is designed to correct any inappropriate withholding of information.

Congressman Duncan, quoted above, wrongly understands government information as something an out-of-control agency collects; it is a resource integral to a functioning democracy and economy. But the congressman is right to draw attention to privacy as highly valued in our democracy. His reference to a "huge public outcry" against the census long form in 2000 is no exaggeration.

Beginning in 1940, the Census Bureau sought a way to collect a large amount of data needed by the government, and increasingly requested by the business community, without burdening the population. This effort matured into the short and long census forms, with the former being asked of the entire population and the latter of only a sample. The long form data range across many topics—education, income, employment, disability, ancestry, and housing characteristics—all of which serve public policy and private sector purposes.

In 2000, the census long form was sent to one in six households. The latent public suspiciousness of an intrusive government was inflamed when talk show hosts, local leaders, a few members of Congress, and even a presidential candidate complained that the long form was intrusive and asked questions the government had no right to ask. Then a candidate, George W. Bush, said he could understand "why people don't want to give over that information to the government. If I had the long form, I'm not so sure I would do it either."[19] Late-night comics took cheap shots (see Box 7). This flared up into a minicrisis in the middle of taking the census, as the mail-back response rate for the long form suddenly dropped well below historical patterns, and many refused outright to answer particular questions, such as income or amount of rent paid. Data quality was affected.

Public concern about privacy makes census taking difficult, putting the nation on a collision course between conflicting but equally important values: privacy and information. There is no escaping that we live in a "knowledge economy," one whose efficiency and productivity depend on massive amounts of information rapidly disseminated. Information flows are to the 21st century economy as the steam engine was to the 19th and the telephone to the 20th. Economic data enhance productivity; other data contribute to well-being in other ways—epidemiological data protect public health; job data reveal patterns of gender or racial discrimination.

Statistical information is assembled from the traits and behaviors of millions of people, and the decennial census is critical. It is, firstly, the only source of information for the entire country that is available in fine geographic detail. Also, it is the benchmark against which all scientifically designed surveys are standardized. For instance, if a population sample survey has 55 percent female and 45 percent male respondents, it would not be truly representative. Not until it is corrected (weighted is the technical term) to match the actual distribution of women and men in the population, as reported by the census, can it be used for reliable analysis. The fine print accompanying scientific public surveys normally reports: "The results have been weighted to ... adjust for variation in the sample relating to geographic region, sex, race, age and education."[20] The census is the uncited benchmark for assigning necessary weights. A poor census reverberates through the entire information system of the nation because it provides incorrect statistical controls for other data collection efforts.

There is no simple trade-off between the need for information and the right to privacy. Public alarm would be lessened if the public better understood how a statistical agency differs from other agencies that collect information. Statistical data are never about individuals; statistics are counts, rates, proportions—the percentage of the population living in poverty, the ratio of the number of minorities in higher education compared with their numbers in the general population, the growing concentrations of households in fire-prone areas.

In contrast, regulatory and enforcement agencies need to know about specific identifiable people. They collect administrative, not statistical data. The Social Security Administration sends payment to an identifiable person, and the Internal Revenue Service collects

*Box 7*

### Examples of What Some Saw as Intrusive Long-Form Questions

**A question on plumbing facilities—hot water, flush toilet, shower—was widely derided.**
Uses—Federal and state agencies use information from this question to determine areas eligible for public assistance and rehabilitation loans. Public health programs use it to locate areas vulnerable to ground water contamination and waterborne diseases.

**A question on how people get to work, and how long it takes, was said to be intrusive.**
Uses—Transportation planning, the allocation of highway funds, and disaster relief (to pinpoint areas of likely congestion) depend on answers to this question because there is information on where one lives and works.

**A question on whether a person has difficulty dressing, bathing, or getting around the home was the target of many talk-show jokes.**
Uses—Police and fire departments use the information to identify neighborhoods where vulnerable and helpless older people live. Funds for home nursing programs are allocated to areas with high percentages of people unable to care for themselves.

taxes in the same way. The FBI keeps records on individuals. A statistical agency may report crime rates, but it never tries to find the individual criminal.

The public, unfortunately, has generally failed to understand the character of statistical data, and is skeptical when we say that there are strict laws safeguarding the confidentiality of census and other statistical data. A Census Bureau employee that released an individual's census answers could be imprisoned for up to five years. The bureau invests heavily in secure transmission and in firewalls to deter hackers. It submits all data releases to procedures that ensure against backtracking from aggregate statistics to individual respondents (making it impossible, for example, to find the only dentist in a small town). These safeguards are a matter of law, of professional practice, and above all honor the commitment of confidentiality that statistical agencies make to citizens when asking for their cooperation.

There is no easy way to reconcile the right to privacy and the need for information. Both are basic to our democracy and economy. The census is an unusually visible target for anxieties about the loss of privacy, particularly because it is required by law, and it will no doubt continue to be the focus of public debate about how much the government should know about private citizens and whether the government's pledge of confidentiality can be trusted.

## Better Data for Democratic Governance

The information about population and housing characteristics that comes from the decennial census long form suffers from one striking weakness—it grows steadily out of date. With a mobile and changing population and a dynamic economy, collecting basic data on a 10-year cycle does not meet 21st-century needs. In 2008 the Social Security Administration will need to assign a multilingual staff to areas where English is the second language; the city agency responsible for emergency evacuation will want to store its evacuation vehicles near where the elderly live alone; the entrepreneur will want to open a Starbucks in a neighborhood of young adults. Census data will be the best available information—but it will be eight years out-of-date.

The Census Bureau has worked for years on an idea to provide more current information. Instead of collecting long-form information from a huge sample every 10 years, the idea is to collect it from a much smaller sample every month, and then combine the monthly samples to provide annual data of a quality and geographic detail comparable to what the decennial long form now provides. The design, known as the American Community Survey, has undergone extensive testing and is ready to be fielded in 2004. It has numerous advantages over the current once-in-a-decade long-form data collection. Its biggest hurdle, however, is the need for Congress to appropriate funds on an ongoing basis rather than on a 10-year cycle. The American Community Survey must also overcome opponents in Congress who would get the government out of information gathering altogether (as illustrated in the Duncan quotation at the start of this section).

To accommodate critics like Congressman Duncan, the Census Bureau and the Congress are reviewing the implications of making the American Community Survey nonmandatory. This will lower response rates and lessen data quality but is a trade-off that may have to be made as the government tries to balance the insistence from many quarters for more timely information and the growing public anxieties about the loss of privacy in an information-saturated society.

## The Multiple-Race Option in Census 2000

We have focused on how the census determines the size of America's population, ignoring an equally interesting question: What does the census tell us about the characteristics of our population? In only a small way can we get to that question, which in any event is taken up in the several other reports in this series.

In these final pages, however, we emphasize that a census never just counts, it always classifies as well. In the political and economic life of a nation, it is both "how many" and "how many of what" that matter: how many young males, how many taxpayers, how many women of childbearing age, how many noncitizens, how many farmers, how many below the poverty line, and on and on.

In thinking about classification—separating people into groups—probably nothing rivals in importance how America, and many other countries, chooses its ethnic and racial categories. The American ethno-racial classification—including what is racial and what is ethnic about it—is in a period of unprecedented uncertainty.

The politics of statistical proportionality that emerged from the civil rights laws passed in the 1960s and 1970s help us see why. From the very beginning of the nation, discrimination directed at people because of their ethnicity and race was embedded in official policy. Slavery is an obvious example, but even after emancipation a rigid racial segregation had the backing of law, as did forcing American Indians to reserva-

tions, denying citizenship to Chinese and Japanese, exploiting Mexican labor, and more in a long, dark chapter of American history.

The civil rights revolution put an end to state-sanctioned discrimination. It gave birth to laws and policies that would right old wrongs and would actively benefit groups historically discriminated against. The idea of statistical proportionality entered our political vocabulary and legal doctrine. The question frequently asked was whether African Americans were under-represented—in universities, in employment, in government contracts, in bank loans, in political office. Under-representation is a statistical concept, and it became a useful tool for detecting racial discrimination and for designing corrective policies. In law, it was joined by the term "disparate impact," where courts were asked to determine if a policy or practice had a disparate impact on racial groups. Concepts such as under-representation and disparate impact require a population denominator, and this is provided by the census.

Groups other than African Americans were quick to bring their cases forward on the basis of statistical proportionality: Hispanics, Asians, American Indians, women, the disabled. In each instance, the census provided the percentage of the group in the population at large—the denominator against which to assess who was being given equal treatment and opportunity, and who was not.

The racial classification system that gave rise to statistical proportionality in the 1960s had a few discrete categories—white, black, and Indian, to which was added Asian and then, in the 1980 Census, Hispanic as an ethnic category. By 1990 every resident of America, in census statistics, belonged to one and only one of four primary racial groups—white, black, American Indian/Native Alaskan, or Asian—or to "some other race." Prior to the 2000 Census, Native Hawaiian/Pacific Islanders became a fifth primary category (they had previously been included with Asians). Being of Hispanic origin is treated in official government statistics as an ethnic, not a racial distinction. A Hispanic can be of any race.

The dramatic change in the 2000 Census was to allow people to choose two or more races, to be multiracial. This upends assumptions that have defined "race" since the beginning of census history. The multiple-race option resulted from a broad review of racial measurement by the Office of the Chief Statistician of the United States, which has oversight responsibilities for the federal statistical system. The office concluded that respondents answering any federal survey or filling out any federal form could declare themselves to be two or more races. The 2000 Census was the first and most visible implementation of this policy, but it is scheduled to become practice for the entire federal statistical system, and it will gradually spread across business, education, medical, and other record keeping. The old idea of a small number of discrete races is on the way out.[21]

Only 6.8 million people used the multiple-race option in 2000.[22] This low percentage allowed government agencies that enforce nondiscriminatory laws to avoid disruptions in current policies and administrative practices. We can expect, however, that the use of the multiple-race option will grow, especially among the younger population. Marrying across racial lines is on the increase, and many Americans are becoming comfortable with the idea that we are a blend of many races.

We have seen that the nation's history of racism and racial politics has been at the center of disputes about how the population is counted. It will increasingly be at the center of what characteristics are counted. Census measurement is a powerful ally of the politics of identity, and of groups claiming rights over public resources.

This is easily seen if we pause and ask: Why do we classify by race and ethnicity?

The simple answer is that the classification is used to facilitate public policy. During the past four decades, the policies that have made fullest use of racial classification have been in the areas of voting rights, affirmative action, and related social justice measures focused on redressing historical discrimination.

But this answer cannot explain why the country suddenly accepted the idea of two or more races as a valid census option. Groups that advocated for this option justified it with the language of social identity more than civil rights.

In congressional hearings about the multiple-race option, the differences between a public policy rationale and a social identity justification were strongly presented.[23]

The NAACP argued that the standard race and ethnic categories were fashioned "to enhance the enforcement of antidiscrimination and civil rights law" and not as "vehicles for self-identification." Its testimony worried that:

> *"The creation of a multiracial classification might disaggregate the apparent numbers of members of discrete minority groups, diluting benefits to which they are entitled as a protected class under civil rights laws and under the Constitution itself. In our quest for self-identification, we must take care not to re-create, reinforce, or even expand the caste system we are all trying so hard to overcome, the caste system that the NAACP was created to oppose."*

The National Council of La Raza agreed:

*"The purpose of the census is both to enforce and implement the law and to inform lawmakers about the distinct needs of special historically disadvantaged populations."*

But this standard argument was countered in the testimony of the Association of Multiethnic Americans:

*"We want choice in the matter. We want choice in the matter of who we are, just like any other community. We are not saying that we are a solution to civil rights laws or civil rights injustices of the past. But I find it ironic that our organization and our people are being asked to correct by virtue of how we define ourselves all of the past injustices of other groups of people."*

Project Race, also a multiracial advocacy group, took a similar position:

*"The reality is that not all Americans fit neatly into one little box. The reality is that multiracial children who wish to embrace all of their heritage should be allowed to do so. They should not be put in the position of denying one of their parents to satisfy arbitrary government requirements."*

The arguments between traditional civil rights organizations and the newer advocates for multiple-race designations make clear that the uses of an ethnoracial classification now go beyond enforcement, which requires a small number of discrete categories. A second purpose is now to be served—choice, expression, identity—and this requires a proliferation of categories. As Harvard professor Jennifer Hochschild put it, "Who would have expected that stodgy data collection agency, the Census Bureau, to be a leading force for deconstruction?"[24]

The introduction of the multirace option in official statistics is not the end of the story. There are growing political efforts to prohibit any ethnic and racial measurement by the government. These efforts, led by groups opposed to affirmative action, believe that the government will not be able to base laws or policies on what it has not recorded.

It seems that the census will continue to be at the center of political debate, though perhaps now more focused on how it classifies the population than how it counts them. The stakes remain high, especially against the backdrop of a demographic diversity unprecedented in history.

## The Census and Democracy in the 21st Century

We define democracy as a government that, in principle, allows all voices to be heard and all interests the right to be taken seriously. This means that the government has to mediate the assertion of strongly conflicting economic and ideological views across different groups in American society. This was not easy even in 1787, but the nation's founders had advantages compared with what faces our political leaders today. The 18th-century population was small and contained within a comparatively limited geographic area. Involvement in civic life was strictly limited to white property-owning males, and those heard from politically shared a common English ancestry, language, and the Protestant faith. These commonalities lowered the political temperature when differences erupted between slave-owning and free states, between agricultural and manufacturing interests, between those intent on a strong central government and those protecting states' rights.

The nation did not long remain small and culturally homogeneous. A nation that started with a population mostly English and Protestant became in the course of the 19th century more broadly European, adding Catholics and Jews to the Protestant base. The 20th century continued apace. America now has Hindu, Buddhist, and Muslim populations. Its immigrants arrive from every world region, sending children to public schools where as many as 100 languages are spoken, and settling in the urban neighborhoods of New York, Chicago, Houston, and Los Angeles, where dozens of nationalities share the streets and shops. The political parties are wooing the fast-growing voting population of Hispanics. Universities try to gain competitive advantage by trumpeting the diversity of their student body. Pop culture blends music and fashion from different world cultural traditions. Civil rights have long ceased to be about black-white issues; they have become about the rights of Mexican agricultural workers, Chinese political refugees, and Bosnian immigrants.

However diversity is defined—linguistically, culturally, religiously, ethnically—the United States today is perhaps the most demographically diverse nation in world history.

Democratically governing a multicultural, pan-world nation is a challenge easily equal to those con-

fronting the Constitution writers in 1787. Democratic practice and theory face tough questions. Cultural differences often deepen conflicts as groups compete for jobs, housing, or university places. Some suggest that these conflicts must be managed by recognizing the rights of groups; others believe that democracy must be based solely on the rights of individuals. How can a democratic constitutional state supposedly committed to universalism accommodate identity politics that reject appeals to universalism? Can there be a common "public interest" in a multicultural society? Tolerance is an often-voiced principle of democracy, but are we to be tolerant of religious beliefs that sanction female circumcision, polygamy, or animal sacrifice? Can cultural relativism proceed so far that tolerance becomes a contradiction in terms? Another facet of our democratic history is captured in the metaphor of a "melting pot," which assumes the gradual dissolving of cultural differences into a mainstream culture. But the very idea of a mainstream culture is challenged in a nation that prides itself on being multicultural, which of course presumes the persistence of many cultures among which the "mainstream" becomes simply another option.

Fashioning democratic principles for multicultural societies is the task of the 21st century (and not only in the United States). One thing is certain: The census will be a contested battlefield in this effort. The census counts and the census classifies—both processes are necessarily central to democratic government. The government will be urged to move democratic practice in one direction or another, as is illustrated by the successful advocacy for the multirace option in 2000 or by the more recent advocacy to remove ethnic and racial categories from government record keeping altogether. The contrasting justifications for racial classification voiced by traditional civil rights groups and the newer advocates for categories that express identity mark the beginning of what promises to be a major transition in our democratic practices.

The census makes its most significant contribution to democracy by offering a common map of the society. Democratic debate—especially the difficult debate about justice and equality in multicultural society—is more rational, more fair, and, one hopes, more civil if based on a shared understanding of who we are as a people. The nation cannot reach such an understanding without a census.

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# ACKNOWLEDGMENTS

Although I did not know it at the time, this monograph began to take shape in 1985, when I was a Fellow at the Center for Advanced Studies in the Behavioral Sciences. Then I wrote an essay on "Public Statistics and Democratic Politics" for a volume titled *The Politics of Numbers*, part of a series on the 1980 Census. I had intended to expand the essay but never found the time and am relieved finally to recognize my debt to the special way that the center frees one to take up new ideas. The Social Science Research Council and the Russell Sage Foundation, two extraordinary forces in the American social science world, sponsored the series on the 1980 Census. My indebtedness to both is a pleasure to record, and a visiting scholar appointment at the Russell Sage Foundation in 2002 offered ideal writing conditions for this monograph.

Colleagues who tellingly commented on an early draft include Reynolds Farley and John Haaga, the well-informed editors of this series, and also Norman Bradburn, Tom Hofeller, John Thompson, and Kathleen Wallman, all people with a keen insight into census taking. My best critic—and not only in this effort—has been Susan, my wife, whose contribution includes, but went much beyond, a sharp editorial pencil.

What deepened my thinking about statistics and democracy was an extraordinary (in many senses of that term) two years as director of the U. S. Census Bureau. Here the number of people I should acknowledge by name is, dare I say, uncountable. So I resort to the less satisfactory listing of groups, starting with several dozen census staff, in headquarters and in the regional offices, who gave me a crash course on my job. They know their stuff. They have to, as they work under difficult conditions, not least of which was having an inexperienced outsider suddenly dropped in as their new director. And I brought in my own outsider, Ellen Lee, who as my chief assistant skillfully navigated me through an endless flow of the unexpected. Washington, D.C., is also home to many—in the Congress, the Department of Commerce, the GAO, and the OMB and in scientific and advocacy organizations—who worked and rooted for a good census. They can rightly lay claim to having helped make it so in 2000. The network of key supporters is larger yet, for it certainly includes advisory groups around the country who gave time, energy, and even devotion to the cause. The list continues to the nearly 1 million temporary census workers and beyond them to thousands upon thousands of unpaid census workers who urged their fellow Americans to be counted. The extended census family, which comes together every decade, was out in force in 2000; it will be back in 2010.

As anyone with a major responsibility in public life knows, there is no effective way to acknowledge all of those without whose support you simply could not do your job. Perhaps my account of Census 2000 will help Americans who hardly noticed that there was one appreciate why so many who worked on its behalf care so much about whether the country has a good one. As a civic event with the ambition to include every person in the nation, the only such civic event in America's democracy, the census counts. This, I suspect, is why members of the family take such pride and pleasure in their work. It is why I did.

# PART II

## ECONOMIC TRENDS AND EMPLOYMENT

# Diverging Fortunes: Trends in Poverty and Inequality

*By Sheldon Danziger and Peter Gottschalk*

## Introduction

Following World War II, the American economy experienced a quarter-century of sustained economic growth, rising real wages, and low unemployment rates. The benefits of this prosperity were widely shared among most of the poor, the middle class, and the wealthy. But even though poverty had fallen rapidly from the late 1940s to the early 1960s, popular authors and economic analysts raised concerns in the late 1950s and early 1960s that many families—especially those headed by less-educated workers, minorities, and women—were not benefiting much from the prosperous economy.[1] These observers called for government to target policies and programs at those being left behind.

Responding to these concerns, President Lyndon B. Johnson directed his economic advisers to develop plans for a "War on Poverty." Based on extant research, Johnson's advisers concluded that economic growth alone would not be sufficient to eliminate poverty within a generation and that the government should intervene to raise the employment and earnings prospects of the nation's poorest workers. Johnson announced the War on Poverty on Jan. 8, 1964. In a transmittal letter to Congress accompanying the 1964 *Economic Report of the President*, he declared:

> *"We cannot and need not wait for the gradual growth of the economy to lift this forgotten fifth of our nation above the poverty line.* We know what must be done, and this nation of abundance can surely afford to do it. *Today, as in the past, higher employment and speedier economic growth are the cornerstones of a concerted attack on poverty. . . . But general prosperity and growth leave untouched many of the roots of human poverty."* [2]

This *Economic Report* discussed many strategies for reducing the number of poor people, estimated at the time to represent one of every five Americans. The strategies outlined in the report—some of which were restatements of long-standing policy goals, and some of which were new approaches—included maintaining high employment, accelerating economic growth, fighting discrimination, improving labor markets, expanding educational opportunities, improving health, and assisting the elderly and disabled.

The conventional wisdom among policy analysts when the 1964 *Economic Report* was issued held that, because stable economic growth at the pace of the prior two decades was likely to continue, government could eliminate poverty by keeping the economy moving and by devoting a modest amount of additional resources to antipoverty programs. This line of thinking also held that poverty was high because the poor were not able to find enough work or because their lack of appropriate labor market skills left them with low earnings even if they worked full time all year.

Policy analysts also saw other fundamental problems that contributed to high poverty rates: lagging economic growth in some areas of the country (such as Appalachia); a shortage of training opportunities; lack of access to education for the poor; and labor market discrimination. These analysts argued that government had a role to play in addressing these problems—by focusing government fiscal and monetary policies on improving the performance of the economy, by funding new education and training programs to raise the skills and productivity of the poor, and by enforcing laws to remove discriminatory barriers in labor and housing markets.

However, poverty in America was not eliminated in the generation after Johnson declared the War on Poverty, and the vision of Johnson and his planners still remains unfulfilled. Why? In part, the optimistic economic forecasts of the 1960s that underpinned Johnson's strategy were based on the prosperity of the quarter-century following World War II—an era of rising real wage rates for most workers and steady economic growth that had raised living standards for most families.

But this "golden age" of prosperity ended in the early 1970s, and powerful economic forces in the decades that followed changed the way that labor markets operated and caused rising economic hardships for many workers and their families. These forces include labor-saving technological changes; the globalization of

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markets; and resulting adjustments in labor market institutions (for example, declines in both the inflation-adjusted minimum wage and in the percentage of workers covered by union contracts).

The last quarter of the 20th century proved to be a period of unanticipated changes in labor market performance, as the economy generated diverging fortunes and diminished prospects for many workers. From the early 1970s to the early 1990s, unemployment rates were high; growth in median earnings (adjusted for inflation) was slow; and access to employer-provided health insurance and pensions fell for the average worker. Men without any formal education beyond high school lost ground as employers reduced their demand for less-educated workers. Inflation-adjusted annual earnings of male high-school dropouts were 23 percent lower in 2002 than in 1975, and earnings for male high school graduates were 13 percent lower.

At the same time, employers increased their demand for the most-educated workers and raised their wages relative to those of the average worker. In 2002, men who had college or higher degrees earned 62 percent more than they did in 1975. In addition, the stock market boom that lasted from the mid-1980s until 2000 raised the property incomes (dividends, interest, and rents) of the wealthiest Americans. As a result of these developments in the labor and stock markets, income inequality increased dramatically among families between 1973 and 2001. The inflation-adjusted average income of the poorest one-fifth of families increased by 8 percent (to about $14,000), whereas the average income of the richest 20 percent increased by 65 percent (to about $160,000).[3]

## Income Inequality in a Market Economy

Market economies promote the efficient allocation of resources by providing incentives for consumers and firms to make efficient decisions. But as a result, market economies also generate income inequality—individuals with more skills earn more than those with fewer skills, and individuals who work longer and harder earn more than those who work less.

Although much public and policy attention was focused on trends in the poverty rate after the declaration of the War on Poverty, little attention was paid to income inequality until the mid-1980s. Robert Lampman, a Johnson administration antipoverty planner and a proponent of the development of an official U.S. measure of poverty, did not consider reducing income inequality to be an explicit goal of the War on Poverty. Instead, he linked the antipoverty goal with ongoing economic policy goals, and argued that government should focus on raising the incomes of poor people.[4]

Income inequality received little attention until the 1980s because it hardly changed from the late 1940s through the mid-1970s. Economist Henry Aaron wrote in 1978 that analyzing changes in the income distribution "was like watching the grass grow."[5] A quarter-century later, however, sociologist Christopher Jencks wrote that:

> *"The economic gap between rich and poor has grown dramatically in the United States over the past generation and is now considerably wider than in any other affluent nation. This increase in economic inequality has no recent precedent, at least in America."*[6]

Despite three decades of rising income inequality, there is still little public discussion about the likely causes and consequences of that inequality, and no consensus on how government might make program or policy changes to reduce it. Analysts differ about whether inequality is even a problem. Liberals consider it socially divisive; conservatives believe that it fosters entrepreneurship.

This disagreement presents a difficulty for policymakers: How does a society determine whether inequality has become so high that it exacerbates social problems and diminishes economic opportunities, or so low that it undermines the efficient operation of the economy and causes individuals to work less and to save less? Jencks concludes that there is little evidence that would allow a neutral observer to select the precise level of inequality that would balance competing goals.[7]

It is beyond the scope of this report for us to formulate an inequality-reduction goal comparable to the antipoverty goal adopted four decades ago. Instead, we review long-run trends in poverty, the percentage of people who are rich, median family income, and family-income inequality. We find that, since the mid-1970s, the American people have experienced diverging economic fortunes.

We begin by describing a series of measurement issues that guide our analyses of available historical data. We then place changes in poverty and the level and distribution of income in historical context by providing a brief economic and policy history of the last half of the 20th century in the United States. Next, we review decade-by-decade changes (from 1959 to 1999) in poverty for all people; for people classified by their race or ethnicity; for U.S.-born people and immigrants; and for people of different ages.

We follow that analysis by examining annual changes in labor market outcomes—wage rates and work hours—for male and female workers for the period from 1975 to 2002. Finally, we analyze how changes in the level and distribution of family income as well as changes in the demographic composition of the population have affected the trend in poverty over this period.

Our review suggests that the economic prospects of those at the bottom and at the top of the income distribu-

tion have parted ways over the past quarter-century, and that the United States is likely to remain (in the absence of dramatic economic and public policy changes) an economically divided nation. In the 40 years since the War on Poverty, progress against poverty has been very slow. The poverty rate remains high for many segments of the population—in particular, children (especially those who do not live with both parents); racial and ethnic minorities; and workers who have completed no more than a high school education. The main exception to the pattern of slow progress against poverty is for the elderly, whose poverty rates have declined dramatically over the past 40 years because of increases in Social Security benefits and a congressional mandate that those benefits be indexed for inflation.

An increasing economic divide between rich and poor was unforeseen by the planners of the War on Poverty. But an era in which a "rising tide" lifted the incomes of all families gave way to an era of "uneven tides" during which the incomes of those at the bottom stagnated while those at the top increased. And while economic inequalities that had widened from the mid-1970s to the mid-1990s stopped increasing during the economic boom of the 1990s, income inequality at the end of the 20th century was much greater than it had been a quarter-century earlier.

# Measuring Trends in Poverty and Income Inequality

For this study, we analyze the Public Use Microdata Samples (PUMS) from the decennial censuses for 1960 through 2000; we also analyze the annual March Current Population Surveys (CPS) of 1976 through 2003. We have devoted considerable attention to preparing comparable samples and income concepts for measuring poverty and inequality across these two data sources. The census data cover a longer time period and have large samples that allow us to focus on detailed demographic groups. The CPS data allow us to track yearly changes from 1975 through 2002 and evaluate how poverty and inequality change as the economy grows and contracts over the business cycle.

Although the census defines a *family* as "a group of two or more persons related by birth, marriage or adoption and residing together," we treat unrelated individuals—persons who do not live with their children or with other relatives—as one-person families. Incomes of all family members who reside together are summed when we measure poverty and family income. If unrelated individuals share a housing unit, they are treated as separate units when we measure poverty and family income. Our sample includes all persons except those in the armed forces; those living in group quarters (such as college dormitories and prisons); and children younger than 15 years old who do not live with any relatives.

Individuals are classified as "poor" if the ratio of their family's money income to the poverty line—which varies by family size—is less than or equal to 1.0. This ratio of *family income relative to needs* corrects the trend in family income for changes in mean family size over time. Sample weights are used throughout the analysis so that trends in both poverty and in family income adjusted for family size are measured on a consistent basis for all persons.

## Absolute and Relative Poverty

The poverty thresholds used to construct the official U.S. poverty statistics were established by the federal government in the 1960s. The thresholds provide an "absolute" measure of poverty that specifies the income level the government defines as necessary to provide minimally decent levels of consumption. Such measures do not vary with changes in the overall standard of living. In other words, if we lived in a world in which there were no inflation, the poverty line today would be the same as it was in 1959, the first year for which the Census Bureau measured the official poverty rate.

Some researchers prefer to use "relative" poverty lines that rise and fall with societal income.[8] A typical relative poverty measure establishes a constant value for the ratio of the poverty line to median family income. For example, the poverty line might be set at 40 percent or 50 percent of the median. Thus, if inflation-adjusted incomes doubled for all families, the *absolute poverty rate* would fall as the incomes of some poor families rose above the fixed absolute poverty line. However, the *relative poverty rate* would not fall, because the relative poverty line would rise and the position of the poor would not have changed relative to the positions of other families.

Because a relative poverty line would probably be substantially higher than the current official line, a relative poverty rate for a current year would be much higher than the official rate for that year. For example, one recent study uses a relative poverty line of 50 percent of median family income and finds that the relative poverty rate in 1999 was about twice the official poverty rate.[9]

We use an absolute poverty line in our analysis because we conclude that an absolute measure captures the notion of poverty that motivated the War on Poverty. For example, Robert Lampman noted that the poverty line reflects concern about "a national minimum—an income level for each family size below which we do not want any American to live."[10] Lampman went on to argue that, once the elimination of poverty using the official measure had been achieved, it would be appropriate for a new generation to set a new poverty standard. Because poverty in the United States has not been eliminated under the official measure, we

consider it appropriate to use such an absolute measure to examine the historical record from 1959 to the present. We do address issues of the relative economic status of people when we analyze trends in income inequality.

## Which Price Index to Use?

The Census Bureau adjusts the poverty thresholds each year to reflect changes in the cost of living. If prices rise by 3 percent, for example, and a family's income rises by the same amount, then the family's standard of living remains constant in the bureau's measurement. The bureau uses the Consumer Price Index for Urban Consumers (CPI-U) to make these annual adjustments. For 2002, the official poverty thresholds ranged from $8,628 for a single person over age 65 to $37,062 for a family of nine or more. The average poverty threshold for a family of four in 2002 was $18,392.[11]

We depart from official procedures by using an inflation adjustment that differs from the one used by the Census Bureau. Economists Gary Burtless and Timothy Smeeding point out that "most economists believe that BLS [Bureau of Labor Statistics] estimates of the changes in the CPI-U overstated increases in consumer prices in many of the years after 1959."[12] The most recent price index developed by the BLS—the Consumer Price Index Research Series (CPI-U-RS)—shows that prices grew more slowly in the past 35 years than does the CPI-U. For example, over the 21-year period from December 1977 to December 1998, the CPI-U-RS increased by 141 percent, whereas the CPI-U increased by 164 percent.

We use the CPI-U-RS instead of the CPI-U to adjust the official poverty thresholds for inflation for years after 1969 because it allows us to measure poverty consistently using the best available measure to control for inflation. Because the new price index records less inflation than the official price index, our poverty thresholds increase at a slower pace than do the official thresholds. In 2002, for example, the official poverty threshold for a family of three was $14,348, whereas the CPI-U-RS poverty threshold for a family of three was $12,307. With the CPI-U-RS line, we classify 9.8 percent of people in the United States as poor in 2002, compared with 12.1 percent in the official census series. Because the threshold for each index is the same in 1969, our poverty series also shows a bigger reduction in poverty since 1969 than does the official series.[13]

## What is Considered "Income"?

Family income is defined as the sum of *money income* from all sources for a family during the calendar year preceding the March CPS or April Census. The Census Bureau measure of income includes wages and salaries; self-employment income; property income (such as interest, dividends, and net rental income); cash transfers from government income-maintenance programs; and other cash receipts. The bureau's measure of income does not include capital gains; imputed rents; or government or private benefits provided in kind (such as food stamps, Medicare, or employer-provided health insurance), even though all these items affect a family's current standard of living. The measure also does not subtract taxes paid or add tax credits received (such as the Earned Income Tax Credit).

## Alternative Poverty Series

The Census Bureau publishes an experimental poverty series for years since 1979 that corrects for many of the deficiencies of the money-income concept. In any year, those poverty measures that subtract taxes paid and add noncash transfers and tax credits to an individual's income all show a lower poverty rate than the official measure. For example, while the official poverty rate rose from 11.7 percent to 12.1 percent of the population between 1979 and 2002, one widely cited experimental measure in this series increased from 8.9 percent to 9.4 percent. Because trends in the experimental series and the official series are similar and because our analysis begins in 1959, we use the official U.S. definition of income (postcash transfer, pretax money income).

## Defining Who is "Rich"

The poverty rate measures changes in absolute income at the bottom of the income distribution. In order to generate a corresponding measure for changes in absolute income at the top of the distribution, we calculate the proportion of people in the United States who are "rich," which we define as people living in families with incomes greater than seven times the poverty line for a family of that size. (As mentioned above, we use a poverty line that is adjusted for inflation using the CPI-U-RS.) For a family with two adults and two children, this threshold is equivalent to $118,265 in 1999 dollars.[14]

Because we use a poverty line that does not vary with changes in the average living standard, our threshold for measuring the proportion of people who are rich is also adjusted only for inflation. Seven times the poverty line was about four times the median income adjusted for family size in 1959, but only about twice the median in 1999. In the same period, the official poverty line fell from 56 percent to 27 percent of the adjusted median.

While analysts who prefer relative measures accept that absolute thresholds provide good measures of the number of poor and rich in 1959, they suggest that such absolute measures are outdated today because average living standards have grown over the past 40 years. These analysts argue that, given the income growth noted above, absolute thresholds in 1999 measured not poverty but extreme poverty, and not the rich but the

merely prosperous. We consider it appropriate to measure poverty and the percentage rich using fixed thresholds, as that is official practice of the U.S. government. Because we also believe that it is appropriate to consider relative measures of poverty and inequality, we supplement our analyses of these absolute measures with analyses of inequality measures.

## Measuring Inequality: The P90/P10 Ratio

Income growth affects absolute measures of who is counted as poor or rich, but it does not necessarily change relative measures of poverty and inequality. For example, if everyone's income increased by the same percentage, there would be no relative improvement for either those at the bottom or those at the top of the distribution, and relative measures of poverty or income inequality would not change. But because fewer individuals would have incomes below a fixed low-income threshold and more individuals would have incomes above a fixed high-income threshold, this proportional increase in income would lower the poverty rate and increase the percentage of people counted as rich.

There are many widely used measures of income inequality. Inequality increases whenever the incomes of people above the mean increase by more than the incomes of those people below the mean. For this report, we measure inequality by using the ratio of income adjusted for family size at the 90th percentile to income adjusted for family size at the 10th percentile. This P90/P10 ratio is a commonly used measure of inequality. (A family at the 10th percentile has an income that is below that of the other 90 percent of the population; conversely, one at the 90th percentile has an income that is below that of only the richest 10 percent of persons.)

Throughout this report, we compute for every person the ratio of family income divided by the poverty line. Recall that the poverty line varies by family size because the amount of income needed to reach any level of economic well-being is greater for larger families than it is for smaller ones. Thus, if a family has two people, we divide its income by the poverty line for a two-person family; if another family has five people, we divide its income by the poverty line for a five-person family. Each person in a family is assigned the resulting ratio.

Dividing the income of each family by the poverty threshold uses the official poverty threshold as an "equivalence scale" that controls for differences in family size. We use the terms *family income adjusted for family size* and *family income-to-needs ratio* interchangeably to denote that we have computed for every person the ratio of family income divided by the poverty line when we are measuring median income, when we are classifying people as rich or poor, or when we are classifying people at the P10 or P90 of family income.

The CPS allows us to estimate trends in hourly wage rates for workers.[15] When we turn to labor market analyses below, we focus on men and women between the ages of 22 and 62 who had positive potential labor market experience, who had worked in the calendar year prior to the March interview, and who reported positive earnings, as wage rates cannot be computed for nonworkers.

# Economic Trends and Public Policy Changes: A Brief History

The economic history of the United States since the end of World War II can be divided into two broad periods, distinguished by sharply contrasting economic and public policy experiences.[16]

The first period—the quarter-century following the end of World War II—was an era during which a "rising tide lifted all boats," as real earnings (earnings adjusted for inflation) and family income increased rapidly and the official poverty rate declined rapidly. During the 1950s and 1960s, most men were employed at jobs paying wages that tended to increase annually by more than the inflation rate. During these decades, the percentage of employers who provided subsidized health insurance and pensions also increased.

By the end of the 1960s, most family heads (typically the husband) alone earned enough to support a family at an income above the poverty line. The incomes of rich, poor, and middle-class families increased rapidly during this era. In fact, between 1949 and 1969, the earnings of workers and incomes of families at the bottom of the income distribution increased somewhat faster than those in the middle and the top of the distribution, resulting in small declines in earnings and income inequality.

This economic era ended abruptly after the rapid oil price increase and resulting recession of the early 1970s. What followed was a decade—labeled by Frank Levy as "the quiet depression"[17]—with three recessions, rapid inflation, slow economic growth, and rising inequality of earnings and family income. Taken together, the 1970s and 1980s was a period of "uneven tides" characterized by slow economic growth, not much change in poverty, and rising earnings and income inequality. Employers reduced their demand for workers with the least education, so that many jobs offer lower real wages today than they did 25 years ago. Fewer jobs now provide subsidized health insurance and pensions, and wages are such that many families rely on the earnings of two workers. As a result of economic changes, earnings inequality and income inequality were higher at the

end of the 20th century than they were at the end of World War II. And the official poverty rate was about the same in 2002 as it was in the early 1970s.

In addition to differences in economic experiences, there were dramatic differences between social policies of the first quarter-century following World War II and the policies of the next 25 years. In the aftermath of the War on Poverty, spending on government social welfare programs (such as Medicare, Medicaid, Head Start, Social Security, and Aid to Families with Dependent Children) increased from 11.0 percent to 18.2 percent of gross domestic product (GDP) between 1965 and 1975. The government introduced new public programs, and benefit levels and the number of recipients of existing programs increased.

Then, after the mid-1970s slowdown in economic growth, the early 1980s saw reductions in government social expenditures on income transfer and employment programs for the nonelderly. The Reagan administration's 1982 *Economic Report of the President* offered a view regarding the relationship between government spending and poverty reduction that differed dramatically from the view of the 1964 *Economic Report*:

> *"Many of the Administration's policies have reduced government expenditures for various groups or provided less of an increase in such outlays than has been expected. The fundamental premise behind these reductions is that they ultimately will lead to substantial and sustainable economic growth. This has particular relevance for the poor, most of whom probably have historically benefited more from sustained economic growth than from government transfer programs."* [18]

As a result of this policy reorientation, the era of social-welfare policy expansions ended. Social-welfare spending as a percentage of GDP fell slightly from 18.2 percent in 1975 to 17.8 percent in 1985; it then increased to 20.9 percent by 1995. But all of the growth in public social-welfare spending as a percentage of GDP after 1975 can be attributed to increases in Medicare, Medicaid, and other health-care spending. Excluding health-related expenses, social welfare as a percentage of GDP increased from 8.8 percent to 15.0 percent between 1965 and 1975, and was at about that same percentage two decades later.

The economic environment also changed in the mid-1970s—from one in which both favorable economic conditions and increased government spending were lifting the incomes of the nonelderly poor to one in which both the wage rates and government benefits of the nonelderly stagnated or declined relative to inflation.[19] The late-1970s oil price increases, increased global competition for manufactured goods production, labor-saving technological changes, and recessions in the early 1980s and the early 1990s meant that an American generation had experienced only a modest increase in its average standard of living at the same time that economic inequality had increased.

Although economic performance in the last quarter of the 20th century was disappointing compared with the performance of the previous quarter-century, the last few years of this period were ones of sustained economic growth. And the employment experience of the 1990s was both different from that of the period from the early 1970s to the early 1990s and was almost as good as it had been in the 1960s. The annual unemployment rate for men over the age of 20 was below 5 percent in 23 of the 25 years between 1950 and 1974, but below 5 percent in only four of the 20 years between 1975 and 1994.[20] The rate again fell below 5 percent in 1995 and stayed below that level for the next seven years before rising during the recession that began in 2001. In 2000, the U.S. male unemployment rate had fallen to 3.3 percent, the lowest rate since 1973.

In contrast to the experiences of the 1970s and 1980s, the recovery of the 1990s was similar to that of the 1960s—one in which real earnings and family incomes increased for those at the bottom of the distribution as well as for the affluent. For example, the real average hourly earnings of private-sector production workers fell by 24 percent between 1973 and 1993, but then increased by 8 percent between 1993 and 1999. The official Census Bureau poverty rate declined from 15.1 percent in 1993 to 11.8 percent in 1999, only slightly higher than the historical low of 11.1 percent in 1973. But the 1999 poverty rate is higher than one would have expected, given that inflation-adjusted per capita income increased substantially between 1973 and 1999. And as the century ended, both the inflation-adjusted value of the minimum wage and the wages of the average production worker were more than 15 percent lower than they had been three decades earlier.

Indeed, poverty in the United States at the end of the 20th century was higher than it was in many industrialized countries, even though U.S. living standards on average are higher than living standards in these countries. In part, this disparity is attributable to the labor market problems mentioned above. In addition, the federal minimum wage (which can be increased only through congressional legislation) has been raised infrequently in recent decades. Poverty is also higher in the United States than in other industrialized countries because the American social safety net provides smaller benefits to fewer low-income families.

Recent research has used the official U.S. poverty threshold to compare the poverty rate in the United States in the mid-1990s with the rate in 10 other advanced economies.[21] The researchers translated each country's currency into U.S. dollars and used a poverty line that is similar to the official census line. According to their calculations, the U.S. per capita GDP in the mid-

1990s was about 20 percent higher than that in the other 10 countries, but the U.S. poverty rate (13.6 percent) was much higher than the other countries' average of 8.6 percent.

The period since 1975 has been an era of rising inequality in the United States. While family income inequality almost always increases during recessions, the increase in inequality during recent economic recoveries is a new phenomenon. Prior to the mid-1970s, economic expansions tended both to increase average family income and to reduce family income inequality, with both changes contributing to poverty reductions. Since the mid-1970s, expansions continued to increase average family income; but inequality increased during expansions as well as during contractions. As a result, people at the bottom of the distribution experienced smaller income increases than average and (at times) even actual income declines.

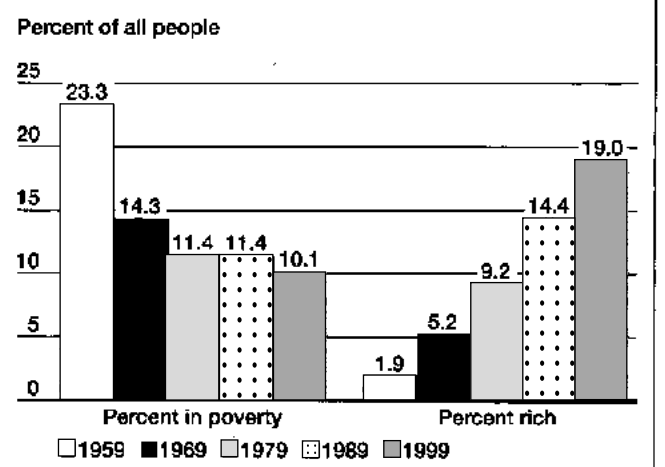
## The Long View—Trends in Poverty and Income Inequality, 1959 to 1999

In this section, we compare trends in *poverty;* in the percentage of people who are *rich* (those whose family income exceeds seven times their poverty line); and in *inequality* over the past four decades. In Figure 1, the percentage of people classified as poor or rich is shown for each census year. Poverty fell substantially between 1959 and 1979, but only modestly in the next two decades. The decade with the largest poverty decline was the 1960s, when the rate dropped by 9 percentage points, from 23.3 percent to 14.3 percent. Poverty fell 2.9 percentage points in the 1970s to 11.4 percent, did not change in the 1980s, and then declined 1.3 percentage points in the 1990s to 10.1 percent.

As outlined above, we calculate the poverty rates in Figure 1 by adjusting the official poverty line for inflation using the CPI-U-RS from 1969 onward instead of using the CPI-U. Thus the poverty rate we calculate is lower for each year than the official rate. The trends over time, however, are similar regardless of which price index is used to determine the poverty thresholds. Between 1969 and 1999, our calculated poverty rate falls from 14.3 percent to 10.1 percent, whereas it falls from 14.3 percent to 12.3 percent using the official line. In historical context, these differences are small. In the aftermath of the War on Poverty, for example, many analysts expected that poverty according to the official measure would be eliminated by 1980.[22]

One indication of the diverging fortunes of those people at the bottom of the income distribution compared with those at the top of the distribution is apparent if one compares the two sides of Figure 1. Our measure of the proportion of Americans who are rich shows that people living in families with incomes above seven times the poverty line (right side of Figure 1) increased from almost 2 percent in 1959 to 19 percent in 1999.[23]

*Figure 1*
**Poverty Rate and Percentage of People Who Are Rich, 1959–1999**



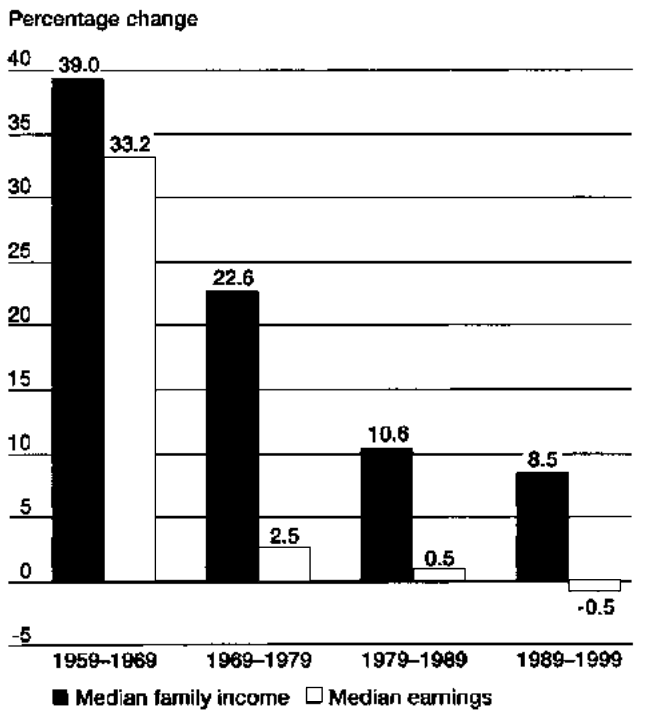

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

There are substantial differences in the trends in income inequality between the period from 1959 to 1979 and the period from 1979 to 1999. As we discuss in more detail later, labor market changes that began in the late 1970s contributed to declining earnings for male workers with the least education. These changes also increased earnings for the most-educated workers. In addition, married women continued to increase their labor force participation over the latter period—a development that kept some married-couple families whose husbands had declining earnings from falling into poverty, and helped the incomes of other married-couple families move to levels above seven times the poverty line. The 1980s and 1990s differ from the earlier two decades primarily because, while poverty had declined before 1979, those at the bottom gained little after that date. The income gains people at the top of the income distribution made during the 1980s and 1990s were also higher than the gains their counterparts made during the earlier decades.

Figure 2 (page 56) shows the slowdown in economic growth over the period from 1959 to 1999. The left-side bar for each decade shows the percentage change in inflation-adjusted median family income-to-needs (family income divided by the poverty line). The right-side bar shows the percentage change in the real median annual earnings of male workers between the ages of 22 and 62 (a group that has high labor force participation rates).

*Figure 2*

**PERCENTAGE CHANGE BY DECADE IN MEDIAN FAMILY INCOME-TO-NEEDS RATIO AND IN MEDIAN ANNUAL EARNINGS OF MALE WORKERS, 1959–1999**




Note: The family "income-to-needs" ratio is defined as the ratio of a family's income to the poverty line for a family of that size. An income-to-needs ratio of 1.0 indicates that family income is equal to the poverty line.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Between 1959 and 1999, median family income-to-needs doubled to 3.7 times the poverty line. The most rapid rate of growth (39.0 percent) was in the 1960s, with substantially lower growth in subsequent decades. As with the poverty rate, there is a substantial difference between the first two decades of the period and the last two: Median adjusted family income increased by 71 percent between 1959 and 1979, but only by 20 percent over the next 20 years.

Real median annual earnings of male workers grew substantially less than median family income divided by the poverty line over the 40 years. Whereas the family income-to-needs ratio doubled, median male earnings grew by only 36 percent during the period, from $23,544 in 1959 to $32,100 in 1999 (as measured in constant 1999 dollars). And most of the growth in male earnings occurred in the 1960s—these median annual earnings were $31,360 in 1969 and $32,100 in 1999. No economist or policy analyst working in the late 1960s would have produced such a dismal forecast for the labor market prospects of men: For a full generation, there was no increase in these workers' inflation-adjusted median annual earnings.

If families at the end of the 20th century were as dependent on male earnings as they had been several decades earlier, family incomes would have been much lower and poverty rates higher than they actually were. Growth in income adjusted for family size continued after 1969 in part because of the increased labor market work of women over these years. By 1999, two-earner families were much more common than they had been 40 years earlier: While 41 percent of married women worked at some time during the year in 1959, this figure had increased to 74 percent by 1999. The declining size of families was another source of growth in income adjusted for family size during this period—a smaller proportion of families had children, and families who did have children had fewer of them. While the average household in 1960 contained 3.35 people, by 2000, that average had fallen to 2.62.

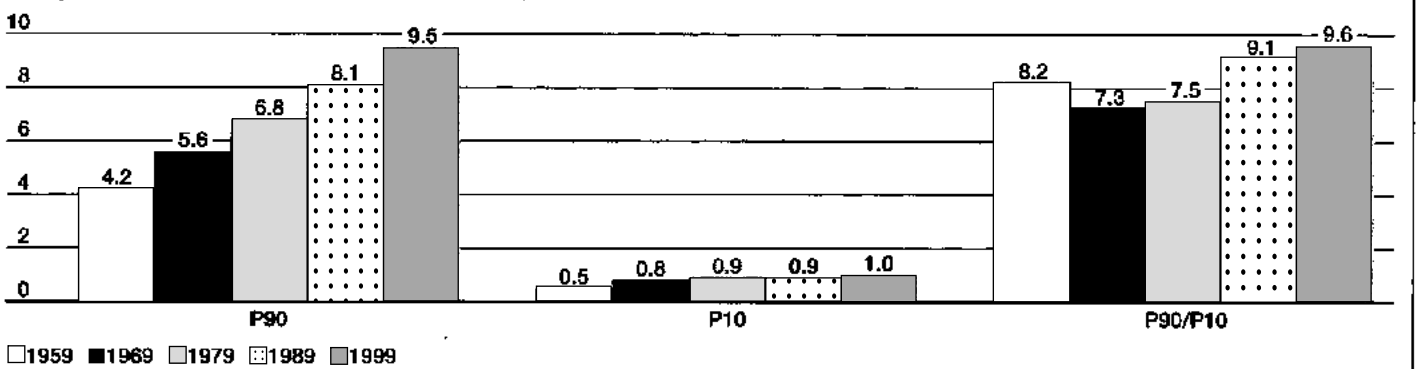
Median family income adjusted for family size more than doubled between 1959 and 1999. However, because growth was unevenly distributed across families after 1979, income inequality increased. Figure 3 shows the income-to-needs ratio for persons at the 90th percentile and at the 10th percentile in each decennial year as well as the P90/P10 ratio—our measure of inequality.

In 1959, a person at the 10th percentile of the income distribution lived in a family with an income that was about one-half of the poverty line, while a person at the 90th percentile lived in a family with an income over four times the poverty line. The P90/P10 ratio in 1959 was 8.2, meaning that a person near the top of the distribution had income more than eight times as large as one near the bottom. The P90/P10 measure of inequality declined to 7.3 in 1969 and increased slightly to 7.5 in 1979, reflecting similar rates of income growth at both ends of the distribution.

But in the 1980s, income inequality surged. While people at the 10th percentile experienced a slight income decline, those at the 90th percentile saw their income grow by 20 percent, to 8.1 times the poverty line. As a result, the P90/P10 ratio rose by 21 percent during the decade, to 9.1. And while the rate of increase in inequality declined in the 1990s, inequality still increased because income at the 90th percentile increased more than it did at the 10th percentile. Indeed, income growth at P90 was quite similar in the 1970s, 1980s, and 1990s; but income growth at P10 in the 1990s was only about half the growth at P10 two decades earlier. The 1980s stand out as the beginning of an era of increased inequality in the United States that continues to the present.

The growth rate and distributional performance of the economy since the late 1970s provide little evidence, given recent economic and public policy experiences, to

*Figure 3*
**INCOME INEQUALITY, ALL PEOPLE, 1959–1999**




Note: The P90/P10 ratio is a commonly used measure of income inequality. A person in a family at the 10th percentile has an income that is below that of the other 90 percent of the population; one at the 90th percentile has an income that is below that of only the richest 10 percent of all people. The family "income-to-needs" ratio is defined as the ratio of a family's income to the poverty line for a family of that size. An income-to-needs ratio of 1.0 indicates that family income is equal to the poverty line.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

expect a return in the near future to the lower levels of inequality of the 1960s or 1970s. As we show below in more detail, the earnings differentials between college graduates and high school graduates have widened over the past quarter-century and show no sign of diminishing. For example, a return to the 1979 P90/P10 ratio of 7.5 would require income at the 10th percentile to grow by 25 percent more than income at the 90th percentile. But during the 1990s, when economic growth was stronger overall than it had been in 30 years, the income at P10 grew by only 10 percent, while incomes at the top of the distribution grew by 16 percent.

# How Different Demographic Groups Fared From 1959 to 1999

## Racial and Ethnic Differences in Poverty and Family Income

The reduction of racial disparities in economic status was a key goal of the War on Poverty. In addition, concerns regarding racial/ethnic disparities in economic status have a long history in Russell Sage Foundation studies of census data.[24]

About 15 years ago, the Committee on the Status of Black Americans, appointed by the National Research Council (NRC), issued the report *A Common Destiny: Blacks and American Society*. The report presented a comprehensive review of changes in the social, economic, and political status of black Americans between 1940 and the mid-1980s.[25]

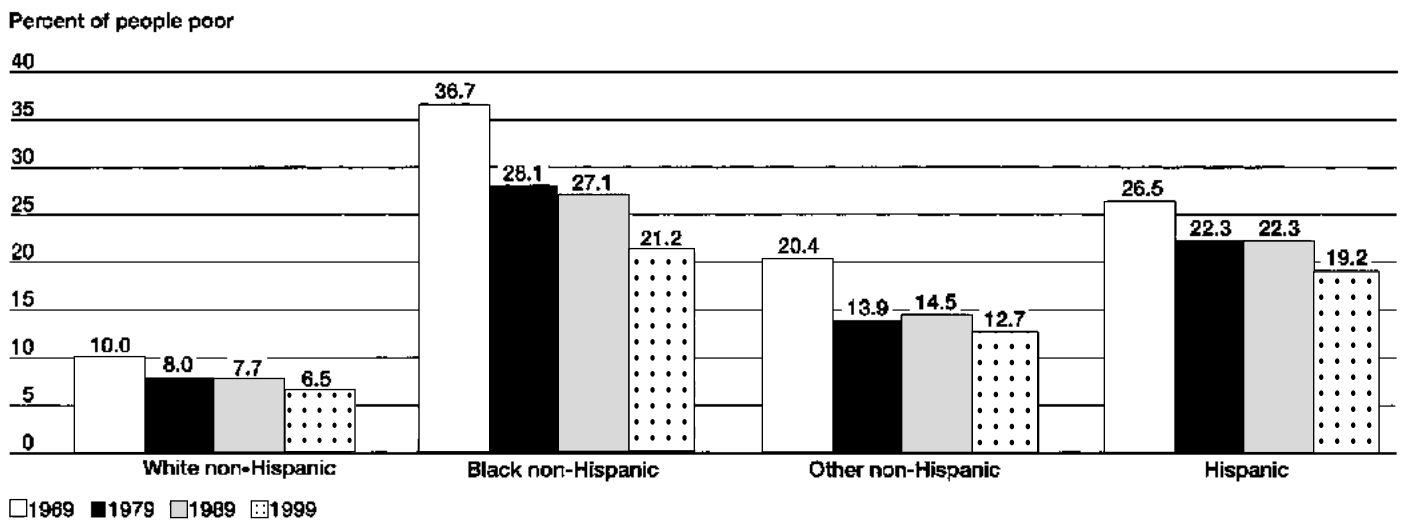
When the NRC committee was deliberating, data on the relative economic status of African Americans and whites was available for the period of study through the mid-1980s. As noted earlier, the economy performed poorly during the period from the mid-1970s to the mid-1980s. Given this background of slow growth and rising inequality, the report's conclusions were pessimistic.

The availability of data from the 2000 Census allow us to revisit the relative economic status of racial and ethnic minorities after the long economic boom of the 1990s. We document that there was much economic progress in the 1990s for all population subgroups—as poverty fell and wage rates, work hours, and family incomes increased. But our review of the most recent data also demonstrates that economic growth on its own is necessary but not sufficient for reducing persistent between-group economic disparities. The gaps between whites and blacks and between whites and Hispanics remain so large that economic parity between these groups is likely to remain decades away.

The 5% PUMS include samples that are large enough to measure poverty and inequality for a wide range of demographic groups. We classify all persons into one of four mutually exclusive racial/ethnic groups—white persons who are not of Hispanic origin, African Americans who are not of Hispanic origin, other racial groups not of Hispanic origin, and Hispanics. Persons who are classified by the census as neither white nor African American include Asian Americans, American Indians, Native Hawaiians, and Other Pacific

*Figure 4*

**POVERTY RATE FOR ALL PEOPLE, BY RACE/ETHNICITY OF FAMILY HEAD, 1969–1999**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Islanders: These groups are labeled in Figures 4 and 5 as "Other non-Hispanic." All persons living in a family are classified according to the race/ethnicity of the family head. Because the 1970 Census was the first to ask questions concerning Hispanic origin, we take 1969 as the starting point for our analysis of trends in poverty and inequality across these groups.

Figure 4 shows the trends in poverty for these four groups. In 1969, while 10 percent of whites were living in poverty, the poverty rate for African Americans was 3.6 times higher (at 36.7 percent). For other non-Hispanics, the rate was about twice that of whites (20.4 percent); for Hispanics, the rate was 2.6 times that of whites (26.5 percent). For all four groups, poverty declined substantially during the 1970s, but was virtually the same in 1989 as in 1979.

During the economic boom of the 1990s, poverty once again declined for all four groups. But despite these gains during a period of low unemployment rates, the 1999 poverty rates for African Americans and Latinos were still about three times the rate for non-Hispanic whites, and the rate for other non-Hispanics was about twice that of whites. The 1999 rates for African Americans and Latinos (both about 20 percent) were still higher than the mid-1960s white poverty rate—about 15 percent. In 1999, racial and ethnic minorities made up around 30 percent of all people in the United States and 55 percent of all poor persons.

We also examined trends in the percentage of people who are rich in each of these racial/ethnic groups (data not shown). For each group, the percentage of people whom we classify as rich increased much more rapidly between 1969 and 1999 than the numbers in poverty fell over the same period, reflecting increased inequality within each racial/ethnic group. In 1969, 6.2 percent of whites had incomes above seven times their poverty line, compared with 3.5 percent of other non-Hispanics, 1 percent of African Americans, and 1.4 percent of Hispanics. By 1999, 23 percent of whites had incomes that we classify as rich, compared with 17.5 percent of other non-Hispanics, 8.9 percent of African Americans, and 6.3 percent of Hispanics.

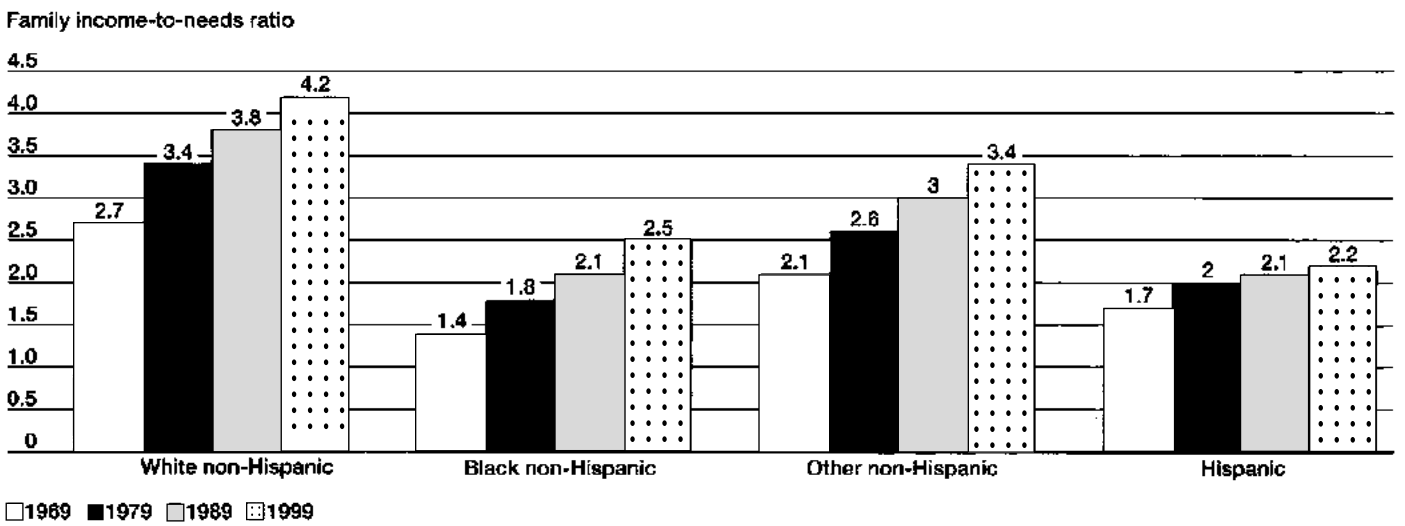
The ratio of rich people to poor people was greatest for whites. In 1999, there were about 3.5 times as many rich whites as poor whites, while for other non-Hispanics, the rich were 1.5 times as numerous. For African Americans and Hispanics, however, the number of rich people was only a small fraction of the number of poor people. Only 8.9 percent of African Americans were classified as rich, compared with 21.2 percent who were poor. And only 6.3 percent of Hispanics were rich, compared with an Hispanic poverty rate of 19.2 percent.

In addition, inequality of family income adjusted for family size is also higher for racial/ethnic minorities than it is for white non-Hispanics (data not shown). In 1999, the P90/P10 ratio was 7.8 for white non-Hispanics, 15.0 for black non-Hispanics, 11.2 for other non-Hispanics, and 10.0 for Hispanics. Inequality increased for each of these groups between 1969 and 1999.

The declines in poverty and increase in the proportion of people who are rich over these 30 years reflect increased living standards for all ethnic and racial groups. Figure 5 shows trends in median family income adjusted for family size. Between 1969 and 1999, this median grew by 55 percent for whites, by 80 percent for

*Figure 5*

**MEDIAN FAMILY INCOME-TO-NEEDS RATIO FOR ALL PEOPLE, BY RACE/ETHNICITY OF FAMILY HEAD, 1969–1999**




Note: The family "income-to-needs" ratio is defined as the ratio of a family's income to the poverty line for a family of that size. An income-to-needs ratio of 1.0 indicates that family income is equal to the poverty line.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

African Americans, by 62 percent for other non-Hispanics, and by 32 percent for Hispanics.

Even though median family income grew more slowly for whites than for African Americans and other non-Hispanics, the racial/ethnic gaps remain large. In 1999, median family income adjusted for family size for Hispanics was 52 percent of that for white non-Hispanics, while median family income for African Americans was 58 percent of that for white non-Hispanics. Median income-to-needs ratios in 1999 for African Americans (2.5) and Hispanics (2.2) were somewhat below the 2.7 ratio of whites in 1969.

These large racial/ethnic economic disparities are not likely to be eliminated in the near future, given prevailing economic trends and public policies. For example, consider the experience of the last three decades for African Americans. If African Americans' median family income adjusted for family size were to grow by 34 percent over the next 20 years (the same rate as it grew over the last 20 years), then it would increase by 2019 to 3.3 times the poverty line—similar to the 1979 level of white non-Hispanics.

The economic status of the Hispanic population has lagged that of both whites and African Americans in recent years because increasing numbers of Hispanics are recent immigrants. Recent immigrants have incomes that are lower on average than those of the U.S.-born.[26] While 29 percent of Hispanics in the United States in 1970 were foreign-born, that percentage had increased to 43 percent by 1999. Because Hispanic immigrants tend to have low incomes when they arrive in the United States (in part because they have lower educational attainment than the U.S.-born population), an increase in the immigrant share of the total U.S. Hispanic population contributed to a higher poverty rate and a lower level of family income for Hispanics relative to both white non-Hispanics and African Americans.

Immigrants are included in the data for each of the racial/ethnic groups in Figures 4 and 5. We now examine differences in poverty rates and family incomes between the U.S.-born and foreign-born to see how the trends shown in Figures 1 and 2 differ by immigration status.

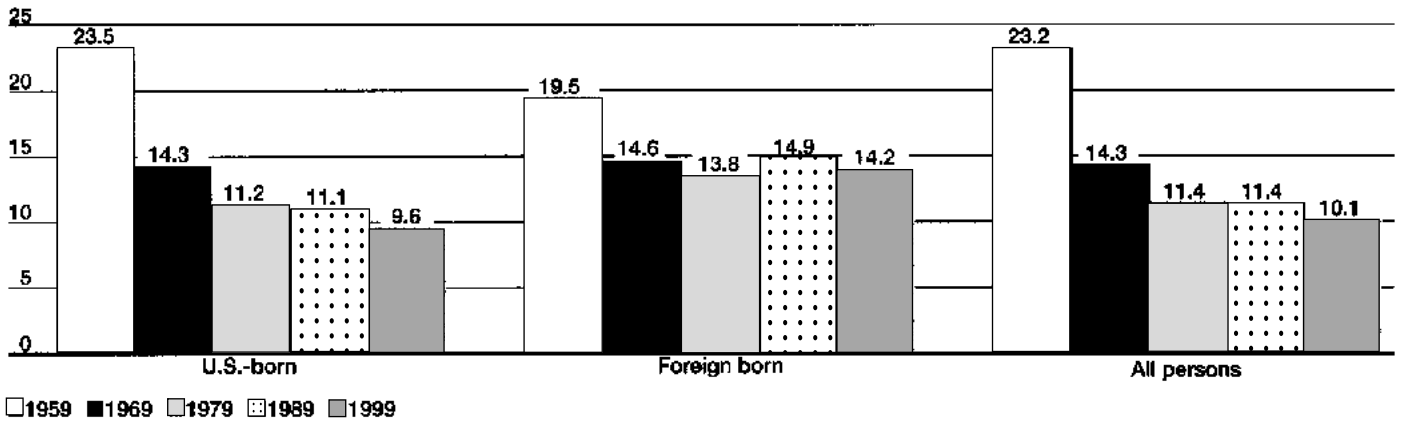
## Poverty and Family Income by Nativity

The United States has from its beginning been a nation of immigrants. However, immigration slowed after Congress imposed immigration controls in the 1920s. Some researchers have labeled the period between 1915 and 1965 as the "Immigration Pause."[27] Thus, there was relatively little immigration during the quarter-century following World War II, when poverty fell rapidly and real family income doubled. Between 1960 and 1980, between 5 percent and 6 percent of all persons were foreign-born.

But in response to legislative changes, particularly the Immigration Reform and Control Act of 1986, immigration to the United States surged. The number of immigrants increased by 40 percent between 1980 and 1990 and by almost 60 percent between 1990 and 2000.[28] Because immigration has increased rapidly over the last

*Figure 6*

**POVERTY RATE FOR PEOPLE, BY NATIVITY, 1959–1999**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

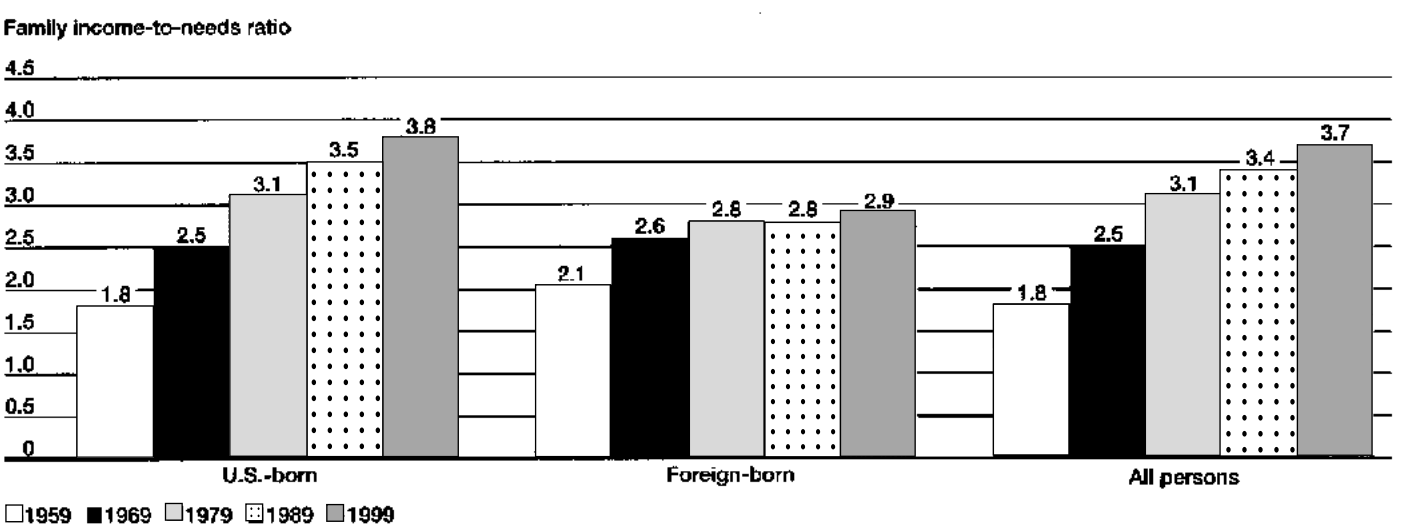
two decades while economic progress has slowed, some observers have suggested that immigration accounts for a large share of the recent slowdown in economic progress and increased inequality.[29]

Immigrants are heterogeneous—not only by country of origin, but also by their citizenship status and by how recently they immigrated. In 2002, 12 percent of all people in the United States were foreign-born, and about 40 percent of the foreign-born had become naturalized citizens. The official poverty rate for naturalized citizens regardless of country of origin—10.0 percent—was lower than the 11.5 percent poverty rate for U.S.-born citizens. Immigrants who were not naturalized had a poverty rate (20.7 percent) about twice as high as both of these rates. However, immigrant noncitizens represented a small fraction both of the total population and of the poor—7.2 percent and 12.4 percent, respectively.[30]

In Figures 6 and 7, we divide the population into two mutually exclusive groups—those who were born in the United States, and those who were born abroad.

*Figure 7*

**MEDIAN FAMILY INCOME-TO-NEEDS RATIO FOR PEOPLE, BY NATIVITY, 1959–1999**




Note: The family "income-to-needs" ratio is defined as the ratio of a family's income to the poverty line for a family of that size. An income-to-needs ratio of 1.0 indicates that family income is equal to the poverty line.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Figure 6 shows that between 1959 and 1999, the poverty rate for the U.S.-born fell by 13.9 percentage points, from 23.5 percent to 9.6 percent—a decline not much different from the 13.1 percentage-point fall (from 23.2 percent to 10.1 percent) for all people. If we assume that the poverty rate among the U.S.-born in any year is not much affected by immigration, then increased immigration over the period from 1959 to 1999 had little effect on the overall poverty rate.

However, if immigrant workers do compete for jobs with U.S.-born workers and do exert downward pressure on the latter's wage rates, comparing poverty trends for the foreign-born and the U.S.-born provides a lower-bound estimate of the effects of immigration on poverty. Indeed, the existing literature does indicate that immigration affects the labor market status of some U.S.-born workers. Researchers estimate that, while the effect is relatively small for the nation as a whole, it is substantial for specific industries or local labor markets where the immigrant share of workers is relatively high.[31]

Trends in poverty from 1969 to 1999 differ from those between 1959 and 1969. In 1959, when most foreign-born Americans were not recent immigrants, the poverty rate for the foreign-born was lower than that for the U.S.-born. By 1969, the situation had changed: The poverty rate was virtually the same for these two groups. But while poverty among the foreign-born was fairly constant between 1969 and 1999—14.6 percent in 1969, and 14.2 percent in 1999—it declined among the U.S-born from 14.3 percent to 9.6 percent. Thus, the increase in the immigrant share of the population since 1969 has contributed somewhat to an increase in the overall poverty rate. Note, however, that the size of this effect is very small: The poverty rate in 1999 for the U.S.-born was only 0.5 percentage points lower than the rate for all persons in 1999.

The lack of economic progress in recent decades for the foreign-born relative to the U.S.-born is mirrored in the trends for family income divided by the poverty line. Figure 7 shows that, in 1959, the median income adjusted for family size was somewhat higher for foreign-born persons (2.1 times the poverty line) than that for U.S.-born (1.8 times the poverty line).

Yet, as the number of immigrants increased between 1969 and 1999, median income grew at a much faster rate for U.S.-born persons than for the foreign-born (52 percent versus 12 percent). In 1999, the median income-to-needs ratio of the foreign-born (2.9 times the poverty line) was about one-quarter less than that for people born in the United States (3.8 times the poverty line). Again, the overall difference directly attributable to immigration is small: In 1999, the median was about 3 percent higher for the U.S.-born than for all persons.

Between 1959 and 1999, inequality within the foreign-born population increased much more rapidly than it did among the U.S.-born (data not shown). The P90/P10 ratio of family income divided by the poverty line increased from 6.8 to 11.1 for the foreign-born, while it increased from 8.4 to 9.1 among the U.S.-born.

## Trends in Poverty by Age

Over the past 40 years, the economic status of the elderly has increased relative to that of the nation's children and nonelderly adults. Figure 8 (page 62) shows the dramatic reduction in poverty among the elderly. In 1959, the poverty rate of elderly persons was 37.1 percent, more than twice the 17.4 percent rate for adults ages 18 to 64. By 1999, the rate for the elderly had fallen to 7.0 percent—lower than the 9.1 percent rate for adults.

During the 1960s, poverty rates declined significantly for children, nonelderly adults, and the elderly. Yet between 1969 and 1999, there was little progress in reducing poverty rates for children and nonelderly adults because of the slow economic growth and rising inequality discussed earlier. In addition, neither the minimum wage nor cash welfare payments for families with children kept up with inflation during this period, and a smaller percentage of the unemployed received unemployment insurance.

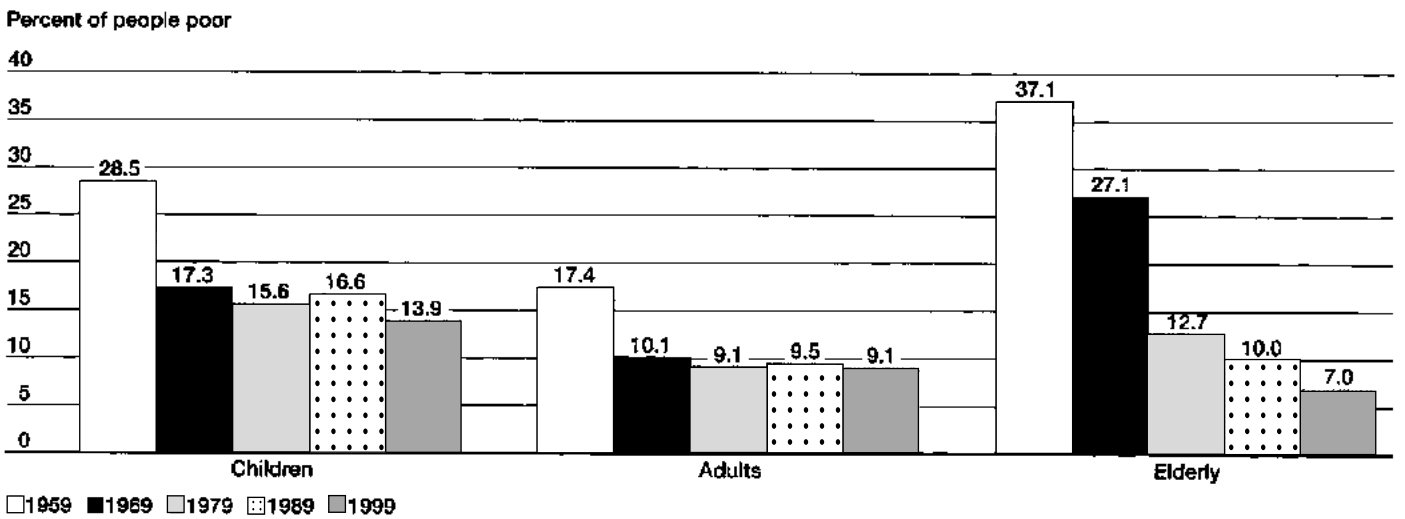
Poverty rates continued to fall for the elderly in each successive decade. This decline is primarily attributable to increased government benefits. Between 1965 and 1973, there were seven across-the-board increases in Social Security benefits. Congress increased these benefits by 13 percent in 1968, by 15 percent in 1969, by 10 percent in 1971, and by 20 percent in 1972.[32] In 1973, Congress mandated automatic inflation-indexation of Social Security benefits beginning in 1975.

From the early 1970s to the early 1990s, the earnings of workers failed to keep up with inflation. As a result, Social Security benefits increased relative to earnings, relative to the poverty line, and relative to the government benefits available to the nonelderly. In 1960, for example, the mean annual Social Security benefit for an elderly married couple was 80 percent of that couple's poverty threshold; that mean benefit rose to match that couple's poverty line in 1970 and then to exceed that line in 1980 by 34 percent.[33] In 1964, the Social Security benefit for a single male retiree was 20 percent of the mean annual earnings of a nonsupervisory production worker. By 1999, this ratio had increased to 45 percent.

In addition, the Supplemental Security Program (SSI), enacted in 1972, provides a minimum monthly cash payment to poor elderly, blind, and disabled persons. SSI is available to those people who did not work long enough to qualify for Social Security benefits; it also provides benefits to those who had very low earnings during their working years and hence receive a low Social Security benefit. As a result, all of the poor elderly—but not all poor children or adults—are eligible for a government monthly cash benefit.

*Figure 8*

**POVERTY RATE BY AGE, 1959–1999**




Note: "Children" are those people under the age of 18. "Adults" are those people ages 18–64. "Elderly" are those people ages 65 and older.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Over the past 40 years, the labor force participation rate of the elderly has declined. In 1959, 49 percent of men between the ages of 65 and 74 worked at some time during the year; by 1979, this rate had fallen to 35 percent, and by 1999, it had declined to 31 percent. In contrast, work hours in a typical family have increased over these decades due to the increasing work of married women. The rising economic status of the elderly relative to the nonelderly is even more impressive when viewed in the context of these changing patterns of employment. In 1959, the median family income adjusted for family size of persons between the ages of 65 and 74 was 65 percent of that of persons between the ages of 35 and 54 (the age group most likely to have additional earners). However, by 1999—when the elderly were working less and the nonelderly were working more—this median family income ratio had increased to 82 percent.

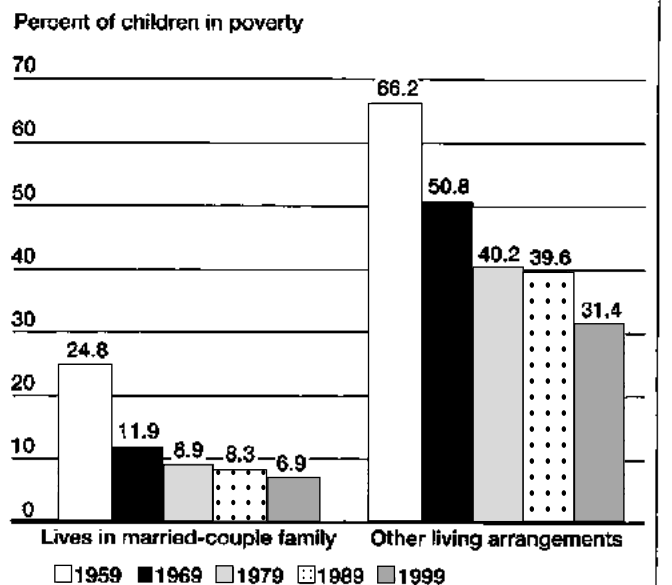
## Trends in Child Poverty by Living Arrangements

In contrast to the poverty rates for the elderly, poverty rates for children have remained at about the same levels for over three decades. One reason poverty has remained high for children is that a declining number of them live in married-couple families, which have relatively low poverty rates. Between 1959 and 1999, as marital fertility declined and both the divorce rate and the rate of nonmarital childbearing increased, the percentage of children living in married-couple families fell from 91 percent to 71 percent.

Figure 9 shows that the poverty rate for children in married-couple families fell from 24.8 percent to 6.9 percent between 1959 and 1999, and that the rate for children in other living arrangements fell from 66.2 percent

*Figure 9*

**CHILD POVERTY RATE BY FAMILY STATUS, 1959–1999**




Note: "Children" are those people under the age of 18.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

to 31.4 percent. While children living in married-couple families have benefited from the trend toward two-earner families, children in other living arrangements primarily live with single mothers who work fewer hours and have lower earnings.

In addition, government benefits for poor children fell in real terms after the mid-1970s, as these benefits were not indexed to inflation and were not legislatively increased. Some research has shown that other industrialized countries provide more government benefits to families with children than does the United States.[34] These benefits are particularly important for children living outside of married-couple families.

# Recessions and Recoveries: 1975 to 2002

The decennial census data do not allow us to distinguish how individuals and families fare in terms of poverty and family income at different points in the business cycle. But the annual March Current Population Survey data allow us to compute time series for the period between 1975 and 2002—the earliest and most recent years that provide estimates of hourly wage rates and a period characterized by several recessions and recoveries.[35]

Business cycles are the "ups and downs" in economic activity, defined by periods of expansion or recession. During expansions, the gross domestic product grows and the unemployment rate tends to fall; during recessions, economic activity contracts and the unemployment rate tends to rise. Business cycles have particularly large effects on the employment and annual earnings of workers. In contrast, Social Security payments to the elderly do not vary with the unemployment rate, so their family incomes and poverty rate are not very sensitive to the business cycle.

The Census Bureau changed its data collection methods between the March 1993 and March 1994 surveys in such a way that economic measures are not comparable for years prior to and after this change. We therefore use a dotted line to connect the data points between calendar years 1992 and 1993 to warn the reader that these changes reflect changes in data collection procedures as well as economic changes.

## The Level and Distribution of Hourly Wage Rates

To this point, we have emphasized the distribution of family income adjusted for family size, which is the income concept the government uses to measure poverty. Annual earnings—by definition, the product of the hourly wage rate and annual hours of work—are the income source that accounts for the largest share of total family income for the nonelderly. We now focus extensively on wage rates and annual hours.

Individuals who have higher wage rates are less likely to be poor than those who have lower wage rates, holding hours worked constant. And at any given hourly wage rate, someone who works more hours per year is less likely to be poor than someone who works fewer hours. Wage rates reflect both the willingness of workers to supply their labor and the willingness of employers to put them to work. Wage rates are also assumed by economists to be determined primarily in the market, based on a worker's productivity and skills.

Labor economists focus on differences in wage rates over time as well as across different kinds of workers. Accordingly, we examine how hourly wage rates have changed over time as well as how hourly wages differ for different types of workers. This section is followed by a discussion of changes in annual hours of work.

Figure 10 (page 64) shows mean hourly wages in constant 1999 dollars for male and female workers between the ages of 22 and 62 in each year between 1975 and 2002. For men, the economic recovery of the 1990s represented a break in the disappointing experience of the prior two decades. While mean male wages increased by 3 percent between 1983 and 1989, those gains were lost during the recession of the early 1990s. The mean hourly wage (in constant 1999 dollars) was virtually the same in 1993 ($15.39 per hour) as it had been in 1975 ($15.28). But between 1993 and 2002, the mean male hourly wage grew by 14 percent to $17.51—the first sustained increase in nearly 20 years.

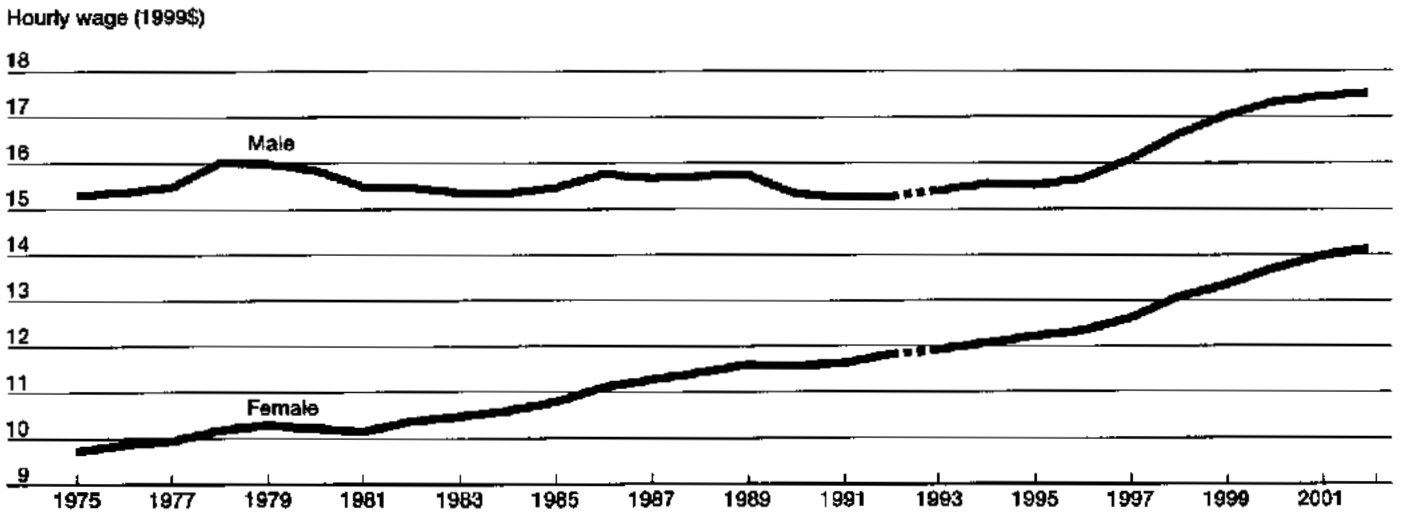
The trend in mean real wages of female workers over the period from 1975 to 2002 is dramatically different. First, the overall growth rate for women was much more rapid. Female wages were 46 percent higher in 2002 than they were in 1975 (an average of $14.14 per hour versus $9.71 per hour), while male wages gained only 15 percent. Second, female wages increased steadily throughout the period—by 15 percent between 1979 and 1989, and by another 15 percent between 1989 and 1999.

The trends in mean wages mask different experiences across the distribution of workers. Figure 11 (page 64) plots the percentage change between 1975 and 2002 in real hourly wages for male and female workers between the ages of 22 and 62 throughout the income distribution. The figure shows increased wage-rate inequality for both men and women between 1975 and 2002—the lines slope upward to the right, indicating that percentage changes in wages were higher for workers at the top of the wage-rate distribution compared with those at the bottom of the distribution.

For men, the relationship between percentile rank and real wage growth is nearly *monotonic*—the lower the rank, the smaller the increase (or the larger the decrease) in wages. Real wages declined at every point on the dis-

*Figure 10*

**MEAN REAL HOURLY WAGE RATE FOR MALES AND FEMALES, 1975–2002**




Note: The dotted line that connects the points between 1992 and 1993 indicates a break in the time series corresponding to changes in the Census Bureau's data collection procedures. Therefore, not all of the indicated change between 1992 and 1993 is attributable to economic changes.

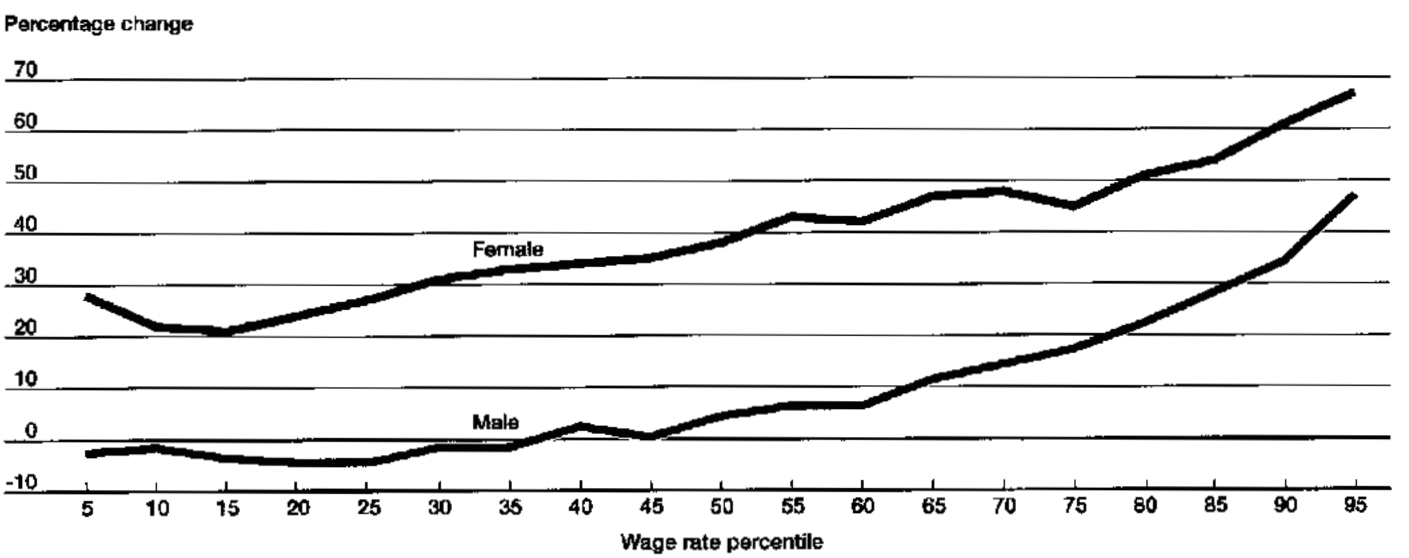
Source: Authors' calculations using the March Current Population Surveys, 1976–2003.

tribution for men up through the 35th percentile. At the top of the distribution, however, males at the 95th percentile in 2002 had wages that, at $48.12 per hour, were 47 percent higher than the wages of their counterparts in 1975 ($32.84). Meanwhile, the increased wage inequality over this period reflected an absolute as well as a relative decline for men at the lower end of the distribution. For male workers, the P90/P10 ratio of wage rates increased from 3.9 to 5.3 between 1975 and 2002.

By contrast, the line representing female workers in Figure 11 is positive at all percentiles, indicating women across the distribution had higher wage rates in 2002 com-

*Figure 11*

**PERCENTAGE CHANGE IN REAL HOURLY WAGE RATE FOR MALES AND FEMALES, BY WAGE-RATE PERCENTILE, 1975–2002**




Source: Authors' calculations using the March Current Population Surveys, 1976–2003.

pared with 1975. The line for female workers is also above the line for male workers at every percentile in the distribution, showing that female workers experienced greater growth in wage rates than did male workers. Over the time period, the median wage for males increased by 4 percent, whereas it increased by 38 percent for females. In 2002, females earned 78 cents for every dollar earned by males ($12.16 per hour versus $15.59 per hour).

As with men, however, wage inequality among female workers also increased, as growth in wage rates was highest at the top deciles and lowest at the bottom deciles. As a result, the P90/P10 ratio of wage rates for female workers increased from 3.7 to 4.9 between 1975 and 2002.

Figures 12 and 13 (pages 65, 66) show the same information as Figure 11, but present the data on wage-rate changes for the 1982–1989 and 1993–2000 economic recoveries. Each of these figures depicts wage growth from the trough year (the calendar year in which the recession ended) to the peak year (the calendar year in which the economic recovery ended) of the business cycle.

There has been substantial controversy concerning the extent to which economic growth "trickles down" to workers at the bottom of the wage and income distributions. The Reagan administration, for example, viewed macroeconomic policy as its major antipoverty policy and tailored its policies accordingly. An alternative view contends that, after the early 1970s, economic growth during recoveries has tended to benefit the least-educated and lowest-paid workers relatively little.[36] According to this view, macroeconomic policies that lower the unemployment rate are important in raising average wage rates and annual earnings. But to substantially reduce poverty, such policies must be supplemented by additional policies for low-wage workers.

A comparison of Figures 12 and 13 reveals that most workers, especially those toward the bottom of the wage-rate distribution, fared worse during the economic recovery of the 1980s than they did during the 1990s recovery. These figures allow us to compare patterns of both wage-rate growth and wage-rate inequality.

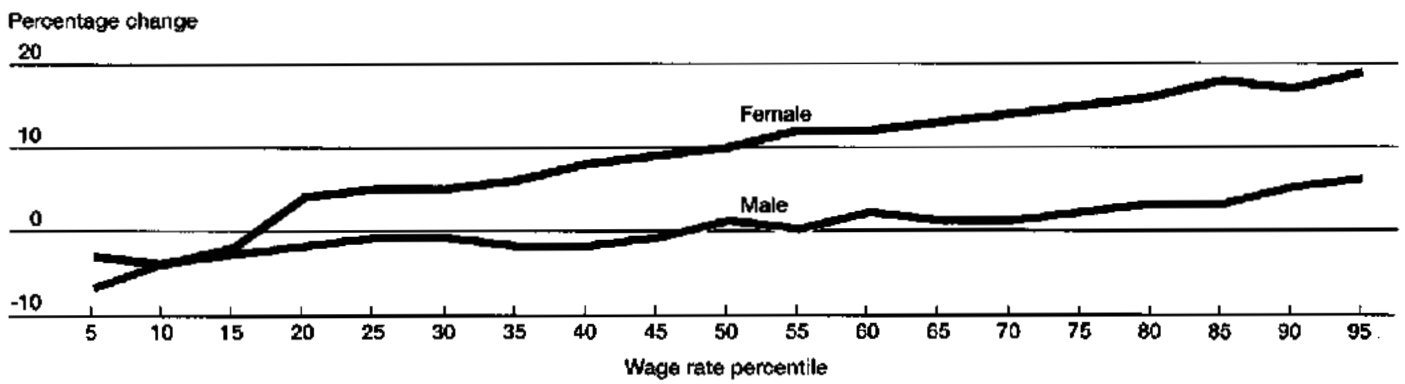
Wage growth was higher in the recovery of the 1990s than in the recovery of the 1980s. For both male and female workers (Figure 13), wage-rate increases between 1993 and 2000 were above 9 percent at all percentiles. In contrast, for male workers during the 1980s recovery, wage-rate increases (Figure 12) were only 5 percent at the 90th percentile and were negative or close to zero for all workers up to the 80th percentile. For women, wage-rate growth was positive at all points above the 15th percentile during the 1980s recovery. But the rate of increase was higher toward the bottom of the distribution during the 1990s expansion—between 1982 and 1989, wage rates at the 20th percentile grew by 4 percent, compared with 12 percent at the 20th percentile between 1993 and 2000.

The differences in the slopes of the lines in Figures 12 and 13 show that wage inequality for both male and female workers increased more during the recovery of the 1980s than during the 1990s recovery. The lines in Figure 12 are upward sloping, indicating that wage growth was higher during the 1980s for workers toward the top of the wage distribution than for those toward the bottom of the wage distribution. Figure 13 (page 66), however, shows relatively flat lines, indicating that wage growth was spread fairly evenly throughout the distribution during the 1990s.

We now distinguish between *cyclical* changes related to the expansion and contraction of the economy during the business cycle and *secular* changes related to long-run trends in the economy.

*Figure 12*

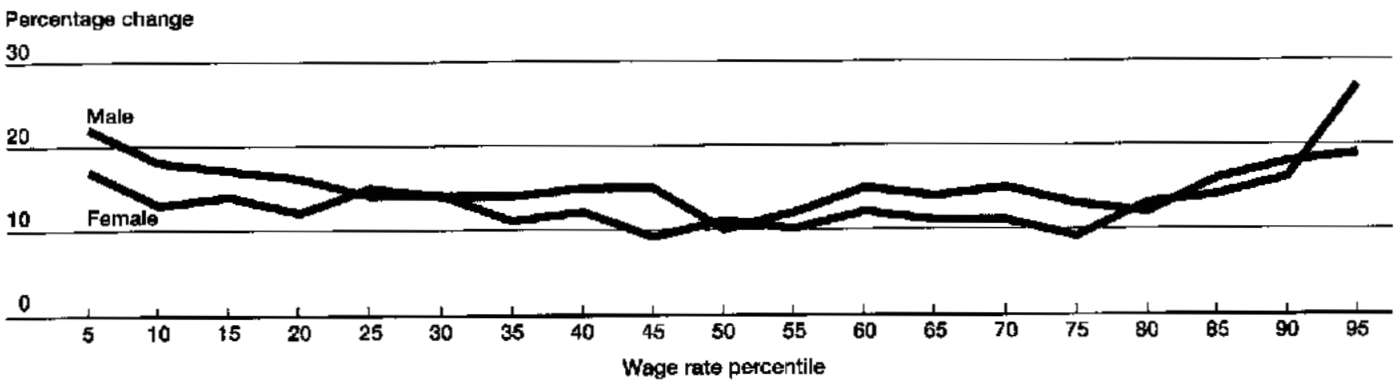
**PERCENTAGE CHANGE IN REAL HOURLY WAGE RATE FOR MALES AND FEMALES, BY WAGE-RATE PERCENTILE, 1982–1989**




Source: Authors' calculations using the March Current Population Surveys, 1983–1990.

*Figure 13*

**PERCENTAGE CHANGE IN REAL HOURLY WAGE RATE FOR MALES AND FEMALES, BY WAGE-RATE PERCENTILE, 1993–2000**

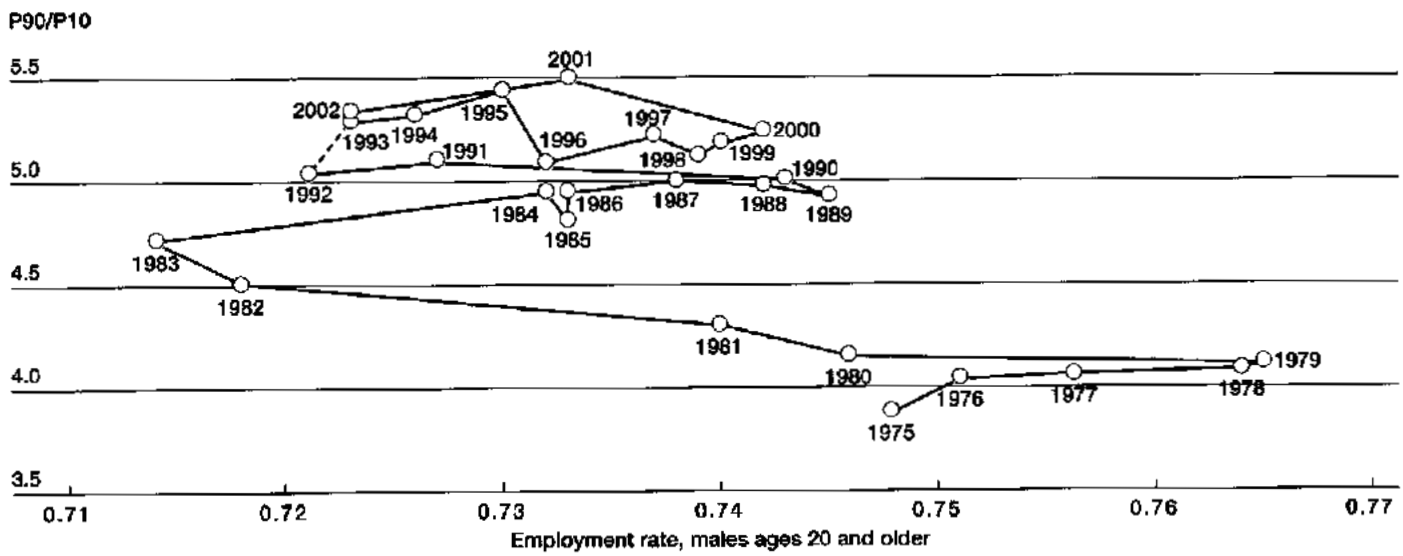



Source: Authors' calculations using the March Current Population Surveys, 1994–2001.

Figure 14 plots the P90/P10 ratio of male wages (on the y-axis) against the employment to population ratio (on the x-axis) for males over age 20. During a recession, the economy contracts and the employment rate falls, so a movement to the left along the x-axis in Figure 14 indicates a recessionary period; a movement to the right indicates an increase in the employment rate associated with an economic expansion. If wage-rate inequality is affected by the business cycle, then decreases in the employment rate will be accompanied by increased inequality, indicated by an upward-sloping line. This means that the wage rates of workers at P10 fall more than those of workers at P90 during recessions. Long-run increases in wage-rate inequality (secular changes) are reflected by upward shifts in the line, indicating that inequality is higher at a given

*Figure 14*

**EMPLOYMENT RATE AND P90/P10 OF HOURLY WAGE RATE FOR MALE WORKERS, 1975–2002**




Note: The dotted line that connects the points between 1992 and 1993 indicates a break in the time series corresponding to changes in the Census Bureau's data collection procedures. Therefore, not all of the indicated changes between 1992 and 1993 are attributable to economic changes.

Source: Authors' calculations using the March Current Population Surveys, 1976–2003.

employment rate regardless of whether the economy is in a recession or a recovery.

From 1975 to 1979, the employment rate increased from 74.8 to 76.5 percent (the high point during the period) and the P90/P10 ratio increased from 3.9 to 4.1. This increase in inequality does not reflect a cyclical change because it occurred during an expansion. In contrast, the period from 1980 to 1983 was marked by two recessions. The employment rate fell by 5.1 points between 1979 and 1983 to 71.4 percent (the low point during the period), and the P90/P10 increase of 0.6 points to 4.7 represents a cyclical change due to recession. The employment rate increased by 3.1 points during the 1983-1989 expansion, but this increase was accompanied by another secular increase in the P90/P10 ratio, to 4.9.

During the recession of the early 1990s, the employment rate fell again, but the P90/P10 ratio did not increase by much. There was a 0.3 percentage point increase in wage inequality between 1992 and 1993, but this increase also coincides with the change in CPS data-collection methods—so one cannot tell how much of this increase can be attributed to real economic changes and how much to changes in measurement procedures. By the end of the 1990s expansion, however, the employment rate had risen back to around 74 percent (the same level as at the end of the 1980s expansion). The 1990s expansion produced only a slight decline in wage inequality, from 5.3 to 5.2 between 1993 and 2000. As the economy went through another recession, the P90/P10 ratio increased and was higher in 2002 than in 2000. In essence, wage-rate inequality did not decrease during the 1990s recovery.

Roughly half of the increase in wage inequality over the 1975–2002 period occurred between 1979 and 1989. But Figure 14 shows that, at any given employment rate, the P90/P10 ratio was higher in later years than in earlier years. Inequality increased most during the recessions of the early 1980s, but did not decline in subsequent expansions. And even though the economy of the 1990s was as good as it had been since the 1960s, low-wage male workers did not gain enough to significantly close the gap between them and high-wage workers. This analysis suggests that increased wage inequality primarily reflects long-run secular changes in labor markets, not fluctuations attributable to the business cycle.

Most economists agree that a number of factors have contributed to long-run changes in labor market outcomes, although there is disagreement over the importance of various factors that have contributed to increased inequality. Labor-saving technological changes have simultaneously increased the demand for skilled workers who can run sophisticated equipment and reduced the demand for less-skilled workers, many of whom have been displaced by automation. Global competition has increased worldwide demand for the goods and services produced in the United States by skilled workers in high-tech industries and financial services. Lower-skilled workers in U.S. manufacturing industries increasingly compete with and are displaced by lower-paid production workers in developing countries. Immigration has also increased the size of the low-wage workforce and the competition for low-skilled jobs that remain in the United States. And institutional changes—such as the decline in the real value of the minimum wage and shrinking unionization rates—also have moved the economy in the direction of lower real wages for less-skilled workers and higher earnings inequality.[37]

# Changes in Wage-Rate Inequality

The increased wage inequality among all male workers and among all female workers is attributable to changes in inequality both between groups of workers (for example, high school graduates compared with college graduates, or African Americans compared with whites) and within groups (for instance, increased inequality among white male high school graduates). To further explore these changes, we estimated a set of standard log wage-rate equations (results not shown) for workers between the ages of 22 and 62. These equations allow us to examine how different groups of workers have fared over the last quarter-century.[38]

## Gender Differentials

As shown earlier, mean wage rates for females grew faster than those for males over the entire period. As a result, the male/female wage-rate gap declined. This decline was partially due to increases in human capital of working women, reflected in their increased education and labor force experience (both in absolute terms and relative to the education and experience of men). But when we hold these factors constant, the decline in the male/female wage-rate gap also reflects an increase in the wage rates of women workers relative to male workers. This gap closed steadily from 47 percent in 1975 to 27 percent in 1993.

However, this decline in the female/male wage-rate differential halted after 1993, as the real wage rates of men began to increase during the economic boom of the 1990s after almost 20 years of decline and/or stagnation. As a result, the gender wage-rate gap was about the same in 2002 (25 percent) as it had been at the start of the 1990s expansion.

The gender gap in annual earnings is affected both by the changes in the wage-rate differential and by changes in the hours women work compared with those men work. The gender gap in annual earnings fell even more than the wage-rate gap over the period in question, because women increased their hours of work rela-

tive to the hours worked by men. Between 1975 and 2002, the percentage of women between the ages of 22 and 62 who worked at some time during the year increased from 57 percent to 72 percent. For men, there was no upward trend, as the percentage working in 2002 was the same as in 1975—82 percent. The mean annual hours of working women also increased, while the hours of working men remained constant. Among all women in this age group, average annual hours worked increased from 920 to 1,353 hours per year, while hours for men stayed constant at 1,869.

## Racial/Ethnic Differentials

If we hold personal characteristics constant, we find there was little change in the black/white male, the black/white female, the Hispanic/white male, and Hispanic/white female wage-rate differentials from 1975 to 2002. The black/white female wage rate gap had virtually closed by the mid-1970s before increasing to 7 percent in 1993 and then falling back to 4 percent in 2002. The Hispanic/white female wage-rate gap was 4 percent in the mid-1970s and 9 percent in 2002.

In every year studied, the black/white male and Hispanic/white male wage-rate gap is much greater than the black/white female gap, and the Hispanic/white male wage-rate gap is much greater than the gap between Hispanic females and white females. For African Americans, the gap increased from 15 percent in 1975 to about 20 percent during the 1980s recession, before falling in 2002 to 16 percent. For Hispanic men, the size and pattern of their income gap with white males is quite similar to that of African American men to white males. Hispanic men had 16 percent less wages than white males in the mid-1970s, 20 percent less in the mid-1990s, and 17 percent less in 2002.

At the end of the 20th century, an African American or Hispanic man with the same education, experience, and region of residence as a white man earned on average 84 cents for every dollar earned by that white man. Holding education, experience, and region of residence constant, an African American woman earned 96 cents and an Hispanic woman earned 91 cents for every dollar earned by a white woman.[39]

The annual earnings gaps between black and white men and Hispanic and white men are greater than the wage-rate gaps because, on average, black men and Hispanic men work fewer hours per year than white men. In 2002, for example, white men worked an average of 1,941 hours annually, compared with black men at 1,533 hours (20 percent less) and Hispanic men at 1,798 hours (7 percent less).

On the other hand, wage-rate gaps and annual earnings gaps between black and white women are similar because black women and white women work similar hours on average. In 2002, white women worked an average of 1,392 hours per year, while black women averaged 1,399 hours of work. The Hispanic/white annual earnings gap is higher than the wage-rate gap because Hispanic women worked 1,146 hours—18 percent less than white non-Hispanic women—in 2002.

## Differentials Between Education Groups

The increased wage inequality of the 1980s reflected a large increase in the *returns to a college education* (the increase in wages attributable to having a college degree relative to a high school degree) and a lesser increase in the *returns to experience*. Figure 15 shows the returns to a college degree relative to a high school degree for male and female workers between the ages of 22 and 62. The patterns shown are quite similar for male and female workers, with the returns to a college degree for men lower than those for women in every year. One reason for the lower relative return to education for men in any year is the availability of relatively high-paying manufacturing jobs that employ high school graduates, mainly men. These jobs increase the average wage rate of male high school graduates and lower the relative return to college for men more than they do for women.

The benefits of having a college degree relative to having a high school degree fell by a few percentage points between 1975 and 1979 for both men and women. However, between 1979 and 1989, this "college differential" in mean wage rates increased from 21 percent to 35 percent for male workers and from 29 percent to 45 percent for female workers. These differentials also rose in the 1990s, but at a slower rate, reaching 44 percent for males and 49 percent for females in 2002. Thus, one factor that accounted for the rising wage-rate inequality of the 1980s—the college premium—was still trending upward during the 1990s, but exerting less upward pressure on the wage differential than in the 1980s.

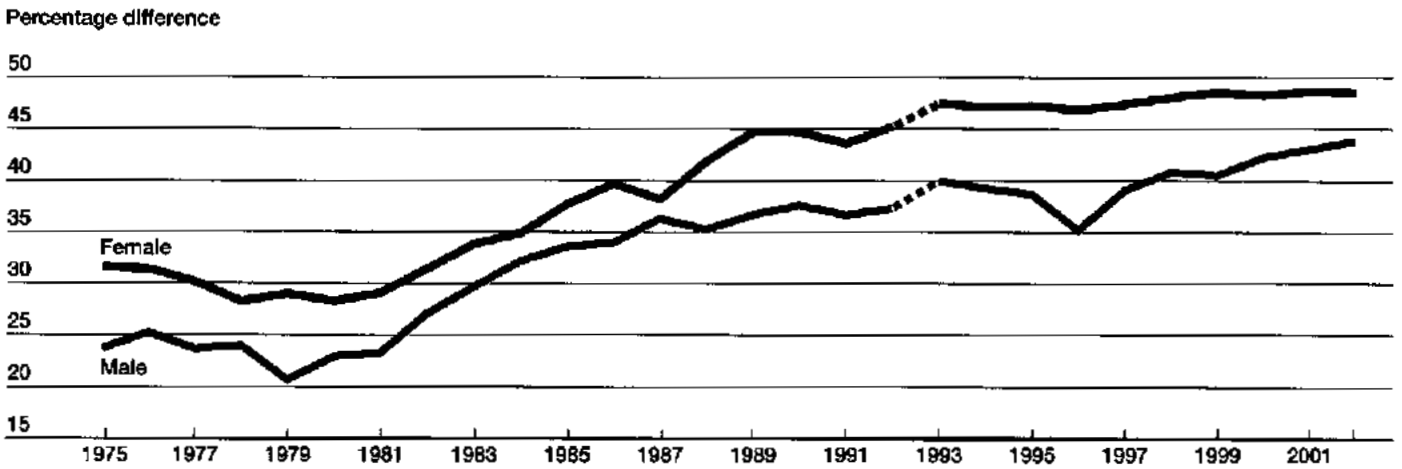
From 1975 to 2002, the college/high-school graduate annual earnings differential for men rose even more than the wage-rate differential (data not shown), since the percentage of men who did not work during the year increased somewhat for high school graduates but decreased somewhat for college graduates. For women, there were large increases in labor force participation for workers at all education levels, so the trend in the college/high-school annual earnings differential was similar to that of the wage-rate differential.

## Changes in Within-Group Wage-Rate Inequality

Wage-rate inequality increased during the 1980s—not only among those with different observable traits (such as gender, race, ethnicity, experience, and education), but also within groups of workers with the same gender, race, ethnicity, experience, and education.[40]

*Figure 15*

**COLLEGE/HIGH-SCHOOL GRADUATE HOURLY WAGE-RATE DIFFERENTIAL, 1975–2002**




Notes: The "college premium" is defined as the percentage difference between wages of college and high school workers. The dotted line that connects the points between 1992 and 1993 indicates a break in the time series corresponding to changes in the Census Bureau's data collection procedures. Therefore, not all of the indicated changes between 1992 and 1993 are attributable to economic changes.

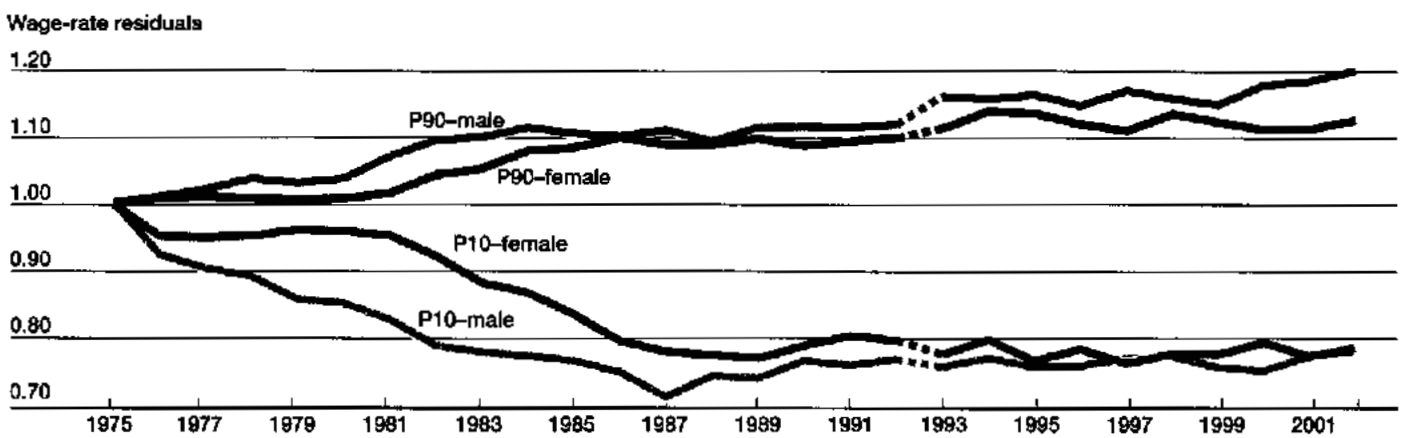
Source: Authors' calculations using the March Current Population Surveys, 1976–2003.

Figure 16 plots the P90 and P10 of the regression residuals for male and female workers. The series for both the P90 and the P10 are benchmarked to equal 1.00 in 1975 in order to express trends relative to this baseline value. For example, the indexed value for the P90 for males goes up by 10.4 percent between 1975 and 1985 (from 1.000 to 1.104). Each point in Figure 16 represents the wage a person at this point in the distribution would receive in each year, compared with the wage a person with the same characteristics would have received in 1975. A male with a wage rate higher than the other 90 percent of males with the same characteristics in 1985 had wages that were 10.4 percent higher than a comparable man at the top of the distribution 10 years earlier.

The patterns are striking. For men and women at the bottom of the income distribution and with the same characteristics, wage rates fell continuously from 1975

*Figure 16*

**RESIDUAL WAGE INEQUALITY: P90 AND P10 IN HOURLY WAGE RATES, HOLDING OTHER FACTORS CONSTANT (1975=1)**




Note: The dotted line that connects the points between 1992 and 1993 indicates a break in the time series corresponding to changes in the Census Bureau's data collection procedures. Therefore, not all of the indicated changes between 1992 and 1993 are attributable to economic changes.

Source: Authors' calculations using the March Current Population Surveys, 1976–2003.

through the late 1980s, at which point a male at the 10th percentile had a wage rate that was roughly 30 percent lower than a similar male worker at the 10th percentile in 1975. For a woman at the 10th percentile, the decline in wage rate was 25 percent. The P10 of the residuals then stabilized, remaining relatively constant for both men and women throughout the 1990s, with the value in 2002 about 20 percent lower than the 1975 value for both genders.

In contrast, the wage rate at the 90th percentile of the within-group distribution increased from 1975 through the mid-1980s, at which time it was roughly 10 percent higher for both males and females than it had been in 1975. The relative position of the 90th percentile wage rates for both sexes then stabilized, rising only between 1992 and 1993 (a rise that coincides with the change in CPS survey procedures). This pattern indicates that within-group inequality among people with the same characteristics stopped increasing until the end of the 1990s, when the P90 for males increased from 1.15 to 1.20 between 1999 and 2002, compared with the 1975 benchmark of 1.00.

If within-group inequality were to converge back to the level of the mid-1970s, those workers at the bottom of the income distribution would have to experience wage growth that exceeds that of those at the top of the distribution by about 30 percent for both male and female workers. This convergence would require a pattern of wage-rate changes unlike anything that has been experienced in the last several decades.

## Changes in Annual Earnings Inequality

As we mentioned earlier, labor economists focus primarily on the distribution of wage rates, as these changes reflect changes in labor demand, labor supply, and/or institutional wage-setting mechanisms. We are also interested in changes in the distribution of annual earnings, as these changes provide the link between labor market outcomes and the distribution of family income. Because annual earnings make up about three-quarters of family income, changes in the distribution of annual earnings have a large effect on the poverty rate.

Annual earnings are by definition equal to hourly wage rates times annual hours worked. Changes in either component will affect annual earnings inequality. If annual hours increase the most for those with the highest wage rates, then changes in hours reinforce the inequality-increasing effects of the wage-rate changes discussed above, and earnings inequality will increase more than wage inequality. If, however, low-wage earners increase their hours of work to offset their real wage-rate losses and maintain their living standards (assuming that employers allow them to work the additional hours), then earnings inequality will not increase as much as wage-rate inequality.

We examined changes in annual hours worked over the 1975-2002 period (data not shown). For men at the 90th wage-rate percentile, annual hours worked increased by 8 percent; but for men at the 10th percentile, annual hours worked increased by less than 1 percent. Thus, changes in hours did not offset the dramatic rise in wage-rate inequality among male workers.

On the other hand, relative changes in annual hours that women worked reduced inequality over the long run. Women at P10 increased their annual hours by 47 percent over the period, while those at P90 increased their hours by 18 percent. Because women at P10 worked less than those at P90 in every year, annual earnings inequality is greater than wage-rate inequality in any year. However, the convergence in annual hours between low-wage and high-wage workers contributed to a decline in annual earnings inequality for women. The P90/P10 ratio of hourly wages increased by 32 percent from 1975 to 2002, whereas the ratio for annual earnings actually declined by 37 percent.

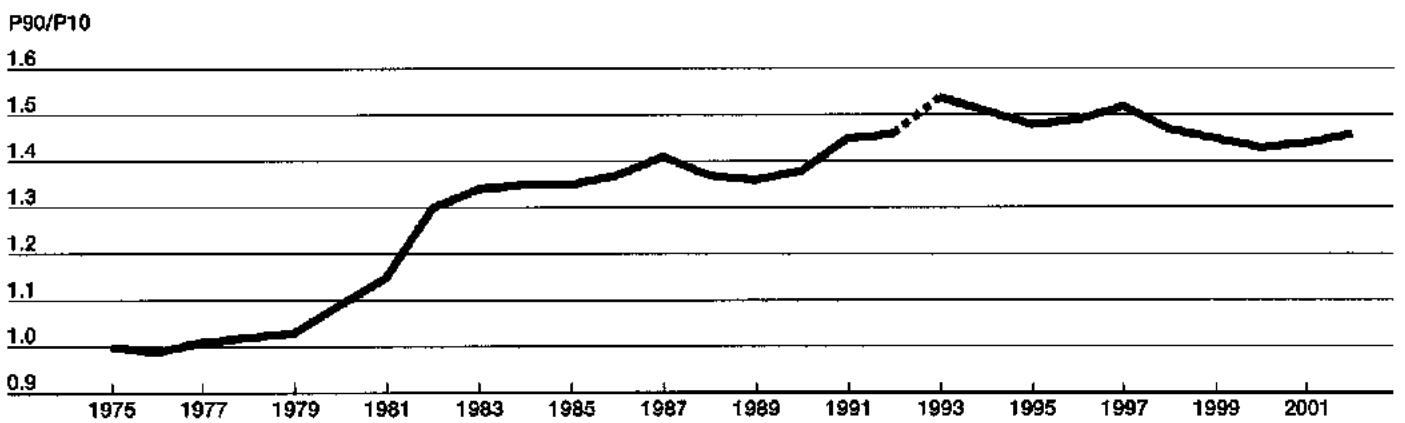
## Changes in Family Income Inequality

Changes in the distribution of male and female annual earnings affect the distribution of family income—but these changes can be offset or reinforced by changes in the level and distribution of other income sources. For example, the distribution of family income for married couples is affected by the earnings of both spouses. If increases in wives' earnings are concentrated in families with low-earning husbands, then the trend toward increased male earnings inequality will be reduced. But there were no significant factors that reduced family income inequality from 1975 to 2002. The last quarter of the 20th century was one of significant increases in inequality of wage rates, annual earnings, and family income adjusted for family size.

Figure 17 presents the P90/P10 ratio for the distribution of family income adjusted for family size for all persons from 1975 to 2002. The P90/P10 ratio is benchmarked to 1.00 in 1975. Family income inequality rose throughout the period, reaching 1.46 in 2002—indicating that the gap between the top and the bottom was 46 percent higher that year than in 1975.

As with the labor market outcomes reviewed earlier, most of the increase in inequality occurred during the recession of the early 1980s. The P90/P10 ratio increased from 1.03 to 1.30 between 1979 and 1982, as the unemployment rate rose from 5.8 percent to 9.7 percent—the highest annual unemployment rate since the Great Depression of the 1930s. And the ratio continued to increase during the economic recovery of the 1980s and fell only slightly during the economic recovery of the 1990s. In 2002, a family at P90 had an income that was 9.2 times that of a family at P10. In 1975, this ratio had been 6.3.

*Figure 17*
**P90/P10 OF FAMILY INCOME-TO-NEEDS RATIO, ALL PEOPLE (1975=1)**




Note: The dotted line that connects the points between 1992 and 1993 indicates a break in the time series corresponding to changes in the Census Bureau's data collection procedures. Therefore, not all of the indicated changes between 1992 and 1993 are attributable to economic changes.

Source: Authors' calculations using the March Current Population Surveys, 1976–2003.

# FAMILY INCOME, DEMOGRAPHIC CHANGES, AND POVERTY

We have shown that the period between 1975 and 2002 was one of slow economic growth and rising income inequality. We now analyze how changes in the level and distribution of family income adjusted for family size and changes in the demographic composition of the population account for changes in the poverty rate. We follow a procedure described in our earlier research that decomposes changes in poverty into components that reflect changes in mean income, income inequality, and the demographic composition of the population.[41]

To derive these three components of change in the poverty rate, we carry out the following calculations. First, we estimate what the impact of growth in mean family income (adjusted by family size) would have been had there been no changes in either inequality or in the demographic composition of the population. To obtain this counterfactual, we first calculate what the poverty rate for all persons would have been if adjusted family income had grown at the same rate for all families and if the demographic composition had remained constant. The difference between this simulated rate and the actual 1975 rate is the change in poverty that is accounted for by income growth.

We then contrast this simulated poverty rate with a second simulated rate that incorporates actual demographic changes. The difference between these two simulated poverty rates is the change in the poverty rate accounted for by demographic changes. The difference between the second simulated poverty rate and the actual 2002 rate is the change in poverty that is accounted for by changes in income inequality.[42]

*Table 1*
**SOURCES OF CHANGE IN THE POVERTY RATE FOR ALL PEOPLE, 1975–2002**

| | 1975–2002 |
|---|---|
| **(1) Observed Percentage Point Change in Poverty Rate** | -2.3 |
| % point change owing to: | |
| **(2) Income Changes** | -4.3 |
| (a) Growth in mean adjusted income | -6.1 |
| (b) Change in income inequality | 1.8 |
| **(3) Demographic Changes** | 2.0 |
| (a) Racial/ethnic composition | 1.0 |
| (b) Family structure composition | 1.2 |
| (c) Interaction | -0.2 |

Source: Authors' calculations using the March Current Population Surveys, 1976–2003.

The first row in Table 1 shows that the poverty rate fell by 2.3 percentage points between 1975 and 2002, from 12.1 percent to 9.8 percent of all people. If economic growth had been equally shared across all families and individuals and if there had been no demographic changes, the poverty rate would have fallen instead by 6.1 percentage points to 6.0 percent. Increases in income inequality added 1.8 points to the poverty rate, offsetting roughly one-third of the poverty-reducing impact of income growth.

Demographic changes also increased poverty. A larger percentage of the population now lives in family

units whose heads have a higher-than-average poverty rate (such as Hispanics and female-headed families). In contrast, a smaller percentage of the population lives in units headed by white non-Hispanic married couples, whose poverty rate is lower than that of any of the other 15 demographic groups. Between 1975 and 2002, the percentage living in families headed by nonelderly white males fell from 61 percent to 43 percent. The percentage living in a family whose head was Hispanic increased from 5 percent to 13 percent; the percentage living in families headed by a nonelderly female increased from 10 percent to 13 percent.

Demographic changes added 2.0 points to the poverty rate, making these changes about as important as rising inequality. We can divide the effect of demographic changes into two components. The first—changes in the racial/ethnic composition of the population, or the decline in the percentage of all persons who are white non-Hispanics—is associated with a 1.0 percentage point increase in poverty. The second—changes in family structure, or the decline in the percentage of all persons who live in nonelderly male-headed families—is associated with a 1.2 percentage point increase in poverty.

These results can be placed in historical context. In earlier research, we presented a similar decomposition of the decline in poverty between 1949 and 1969.[43] Over those two decades, the poverty rate fell by more than 25 percentage points, from 39.7 percent to 14.4 percent. Income growth was so rapid that, if it had been equally shared across all families and individuals, poverty would have fallen by 21.4 points. During this period, people at the bottom of the income distribution actually experienced higher income-to-needs increases than people at the top of the scale—and this reduction in inequality contributed an additional 5.5 percentage point drop in poverty. Between 1949 and 1969, demographic changes added 1.2 percentage points to the poverty rate.

Therefore, economic changes, not demographic changes, account for the difference between the rapidly declining poverty rate from 1949 to 1969 and the slowly declining poverty rate of the last quarter of the 20th century. Poverty fell so much more in the first period than in the second period because of rapid economic growth and declining inequality.

We conducted another simulation that included the observed demographic changes between 1975 and 2002 but was based on the assumption that the economic performance of the last 27 years was similar to that of the 1949-1969 period. That is, we assumed that incomes had grown just as rapidly in recent years as it had during the economic "golden age" of the two decades following World War II. This simulation assumes that family income adjusted for family size had doubled between 1975 and 2002, instead of increasing by 53 percent, and also assumes that income inequality was the same as it was in 1975.

We mentioned earlier that planners of the War on Poverty expected the official poverty rate to fall dramatically in the 1970s and 1980s, based on the assumption that economic growth would continue to be rapid and that inequality would not increase. This simulation suggests that these expectations would have been fulfilled had economic growth not slowed and had inequality not increased. Even with the observed changes in the demographic composition of the population, the poverty rate in 2002 would have been 4.6 percent instead of 9.8 percent.[44] This simulated rate is quite similar to the poverty rate of other industrialized countries.[45]

## Summary

Poverty remains high because economic growth in the last quarter of the 20th century was so much slower and inequality so much higher than in the previous quarter-century. While the experience of the 1990s was more favorable than that of the 1980s, there are no prospects—given existing labor market conditions and public policies—for significant declines in poverty or a substantial reduction of inequality in wage rates, annual earnings, or family income.

While most presidents since Lyndon Johnson have given major addresses on welfare reform, we are not aware of any major presidential addresses that focused on antipoverty policies. Since the Nixon administration, poverty has fallen from the top of the public's agenda to its periphery. A recent survey found that only 10 percent of the population considered poverty, welfare, or a similar issue as one of the top two issues government should address. More than 20 percent of the survey's respondents cited health care, education, or tax reform as one of their top two public policy issues.[46]

In contrast to the U.S. approach, British Prime Minister Tony Blair made a Johnsonian "War on Poverty" pledge in 1999. As Blair put it, "Our historic aim will be for ours to be the first generation to end child poverty, and it will take a generation. It is a 20-year mission but I believe it can be done."[47] The antipoverty policies enacted by the Blair government are based to a significant extent on American poverty policy research. For example, the U.S. experience in moving recipients from welfare to work was very influential with Blair's advisers. However, as some analysts have noted, the Blair government used the theme "work for those who can, security for those who cannot" to demonstrate its desire both to reform welfare and to reduce poverty.[48]

The Blair government established new programs and increased funding for existing programs in order

to promote work, to increase investments in children, and to expand opportunity and intergenerational mobility. In response to these new initiatives, child poverty in the United Kingdom has fallen dramatically in recent years.

As this recent example demonstrates, if there is a political will to reduce poverty, there are many public policies that could be put in place in the United States to achieve President Johnson's 1964 goal—the elimination of income poverty within a generation.


## ACKNOWLEDGMENTS

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20. Employment rates are defined as the total number of persons over the age of 16 who are employed divided by the civilian population over age 16. Thus, the employment rate depends both on the unemployment rate and the labor force participation rate.
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36. Danziger and Gottschalk, *America Unequal*; and Frank Levy and Richard Murnane, *The New Division of Labor: How Computers are Creating the Next Job Market* (Princeton, NJ: Princeton University Press, 2004).
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38. The framework for these equations is as follows: The dependent variable is the natural logarithm of the hourly wage rate. The independent variables include a set of education dummies ("completed less than a high school degree," "high school degree," "some college," "college," and "more than college"); a quadratic in experience (defined as age minus years of completed schooling minus 6); a gender dummy; dummies for race and ethnicity ("white non-Hispanic," "black non-Hispanic," "Other non-Hispanic," and "Hispanic"); and regional dummies ("Northeast," "Midwest," "South," and "West"). These regressions were estimated separately for each year from 1975 to 2002.

    The estimated regression coefficients represent wage-rate differences between groups in any year. For example, the coefficient on the dummy variable indicating that the worker is a woman represents for that year the estimated wage-rate differential between female and male workers (holding race and ethnicity, education and experience, and region constant). Similarly, the estimated coefficients on other variables hold other factors constant while indicating race and ethnicity differentials or returns to education and experience. If the size of a coefficient is rising over time, it means that the wage-rate gap between that group and the reference group is increasing.

    Gender, race or ethnicity, and educational differences represent the between-group portion of wage-rate inequality. Within-group inequality is the remaining variation in wage rates (holding all factors constant), and is measured by the standard deviation of the regression residuals.
39. We cannot compute hourly wage rates prior to 1975. Peter Gottschalk reports that the earnings gap between full-time black workers and full-time non-black workers declined by 2.1 percentage points per year from the mid-1960s to the mid-1970s. This gap decline is greater than the 0.4 points per year decline in the black/white wage gap reported here. The difference is attributable, in part, to the greater cyclicality of black work hours relative to white hours. See Peter Gottschalk, "Inequality, Income, Growth, and Mobility: The Basic Facts," *Journal of Economic Perspectives* 11, no. 2 (1997): 21-24
40. The growth in within-group inequality is reflected by a wider dispersion of the residuals in the log wage regressions. If there were no within-group inequality, then every individual in a specific group (such as people of the same gender, race, ethnicity, experience, and education) would have the same wage rate. This is not the case, as there is substantial dispersion in wage rates even among persons with the same characteristics. The dispersion around the mean wage rate for the group is measured by the dispersion of the residuals around the regression line.
41. Danziger and Gottschalk, *America Unequal*.
42. In order to determine the impact of demographic change, we divide all individuals into one of 16 mutually exclusive demographic groups based on the characteristics of their family head. These groups are based on classifying family heads into one of four race/ethnicity categories (white non-Hispanic, black non-Hispanic, other non-Hispanic, and Hispanic) and then further dividing each of the four groups into four categories based on the age/gender of the family's head

(nonelderly male family heads; nonelderly female family heads; nonelderly unrelated individuals; and the elderly, both as heads of families and as unrelated individuals). In all calculations we weight by the number of people in the family so that we can derive the poverty rate for all people.

We begin with the 1975 microdata for each family and calculate a simulated income distribution for 2002 in which every unit's income is increased by the observed growth in adjusted family income over the entire time period—in other words, by 53 percent, as the mean family income-to-needs ratio increased from 3.15 to 4.82 between 1975 and 2002. Because this simulation uses the 1975 data, there is by definition no demographic change. Also, because all families experienced the same percentage increase in income relative to the poverty line, there is no change in inequality. These simulated data have a different poverty rate—one that is lower because of the uniform income growth. The difference between this simulated poverty rate and the actual 1975 rate equals the change in poverty attributable to income growth.

Using these simulated microdata that have the 2002 mean income/poverty line, we then compute the group-specific poverty rates for the 16 demographic groups—in other words, what would have been the 2002 poverty rates for each group if only the mean had changed since 1975. Next, we take these 16 group-specific poverty rates and weight them using the 16 demographic weights that reflect their observed population shares in 2002. This second simulation of the overall poverty rate for 2002 is based on the 1975 inequality level, but with the demographic composition of the population and the mean income held at observed 2002 levels. The difference between the poverty rates from the two simulations equals the percentage point change in poverty accounted for by demographic changes. The difference between this second simulated poverty rate and the actual 2002 poverty rate is equal to the change in poverty accounted for by changes in income inequality.

43. Danziger and Gottschalk, *America Unequal*: 102.
44. Both the simulation's calculated poverty rate of 4.6 percent and the actual 2002 poverty rate of 9.8 percent cited here were calculated using CPI-U-RS adjusted poverty thresholds. Had our simulation used official poverty thresholds, it would have calculated an adjusted poverty rate of 5.5 percent for 2002, versus the official rate of 12.1 percent.
45. Smeeding, Rainwater, and Burtless have estimated absolute poverty rates of between 4 percent and 7 percent in the mid-1990s for Canada, Germany, the Netherlands, Sweden, Finland, and Norway; for the same period, they report, the United States had a poverty rate of 13.6 percent. See Smeeding, Rainwater, and Burtless, "United States Poverty in a Cross-National Context."
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# Women, Men, and Work

*By Liana C. Sayer, Philip N. Cohen, and Lynne M. Casper*

## Introduction

In 1997, Robert Reich made what he described as one of the most painful decisions of his life. He resigned from his job as the U.S. Secretary of Labor. Why? He wanted to spend more time at his other job: being a good dad to his two teenage boys in Boston.

Two years earlier and a quarter of the way around the globe, Penny Hughes, then president of Coca-Cola U.K. and Ireland, resigned from her job to care for her two young sons and pursue other interests.

These two examples represent choices made by two people at the pinnacle of their careers in order to strike a more reasonable balance between work and family. These are of course unusually rich and successful people who can afford to resolve work and family conflict by withdrawing from paid work. But difficult work and family choices are also made by families of more modest means.

In April 2004, Zoila and Manuel Martínez testified in front of the U.S. Senate Health, Education, Labor, and Pensions Subcommittee on Children and Families about the difficulties they face arranging their lives to earn enough to support their family and to provide adequate care for their two school-age children and Zoila's diabetic mother. Zoila and Manuel work the equivalent of three full-time jobs to make ends meet; with the help of their employer, they organize their paid work schedules to maximize the time one of them can care for their children and to minimize child-care costs. While these choices are not necessarily available to all women and men, they illustrate solutions to the dilemma faced by the vast majority of people in this country as they arrange and rearrange their lives to accommodate the demands of work and family.

Work and family are the two most important domains of adulthood, and both involve time and labor. Paid work outside the home is necessary for the income it provides to purchase food, shelter, health care, and other goods and services on which individuals and families rely. Paid work also provides people with a sense of purpose and satisfaction, although it can produce stress. Unpaid work within the home—cooking, cleaning, shopping, home maintenance, and caring for children—is also necessary for the health and well-being of individuals and families. As with paid work, unpaid work provides satisfaction and fulfillment, but much of this work is mundane and tedious.

In the United States, paid and unpaid work have been historically divided along gender lines. For example, in the 1950s, men were typically breadwinners who worked outside the home for pay, and women were homemakers who worked at home to ensure the smooth functioning of everyday life. Even when families differed from this "separate spheres" arrangement, men still had primary responsibility for supporting the family whereas women had primary responsibility for childrearing and housekeeping. This arrangement was well suited to a time in which the vast majority of women and men were married, could maintain a comfortable standard of living on one salary, and could count on their partner to provide that part of work they were not doing themselves. In stark contrast, today many women and men such as Robert Reich, Penny Hughes, and the Martínezes participate in both work spheres. Increases in divorce and single parenthood,

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Note: The authors contributed equally to this report and are listed in reverse alphabetical order. The findings and opinions expressed are attributable to the authors and do not necessarily reflect those of the National Institute of Child Health and Human Development.

changes in attitudes about appropriate adult roles for women and men, changes in the economy, and rising demands for consumer goods have impelled more women and men to combine paid work and unpaid work. Although this arrangement yields positives—increased satisfaction for women from paying jobs and for men from participating more in family life—it also yields negatives, including increased time pressures, stress, and poor health outcomes.

The shift in the gender division of labor has created new work and family challenges throughout society. On an individual level, every man and woman is confronted with the challenge of arranging their lives to meet both types of work demands, and the decisions they make affect their co-workers, spouses, children, other family members, and even employers. According to a recent study, eight of 10 American adults say they have problems and stress in their lives and nearly two of three say their stress level is higher than they would like it to be.[1] Women and men who said that they are stressed out reported feeling more stress in their lives than they did even five years ago, and both blame trying to integrate work and family. Women are more likely than men to claim their lives are stressed, and the primary source of stress differs: Women blame family work more and men blame paid work more.[2] Stress weakens the body's ability to fight off sickness and also causes or worsens hypertension, cardiovascular disorders, migraine headaches, cancer, arthritis, respiratory disease, ulcers, colitis, and muscle tension. Stress is a source of anxiety, panic attacks, depression, eating disorders, hypochondria, and alcoholism, and is the second most disabling illness for workers after heart disease.[3]

Employers are aware of work-family conflicts and their effects on worker absenteeism, productivity, and turnover. Some have adopted policies and practices to deal with these issues, such as providing onsite elder care and child care, flextime and flexible work arrangements, and paid leave banks. Policymakers, too, have begun to focus on the problem, and in 2003, they introduced various bills related to work and family issues, including the Fair Minimum Wage Act of 2003, the Family Time and Workplace Flexibility Act, and the Family and Medical Leave Expansion Act. Nonetheless, the United States still lags behind other countries in the support it provides for women and men trying to integrate work and family responsibilities.

For several decades, conflicts between work and family were defined as women's issues because, since 1950, women's work and family roles have changed more dramatically than men's. Women in the 1950s, such as Marian Cunningham on "Happy Days" or June Cleaver on "Leave It to Beaver," got married and had children soon after they graduated from high school and devoted their work time exclusively to unpaid work in the home. By contrast, women in the new millennium, such as Monica, Phoebe, and Rachel on the popular television series "Friends," hold down jobs and live on their own before getting married and most remain in the labor force even after starting a family.

Compared with women, men's work lives have changed relatively little; the vast majority of men in both time periods were employed full time. Recent evidence suggests, however, that men are beginning to change their behavior in unpaid work within the home. The 1990s saw the emergence of a new "fatherhood" movement, questioning assumptions that men's family responsibilities were only financial. Many men have increased their share of family work and some have even given up their jobs entirely to become at-home-dads. Additionally, in a recent study, more than four of five young men declared that having a job schedule that allows for family time is more important to them than money, power, or prestige.[4] Yet important gender differences still exist in the time devoted to work and the type of work done, suggesting that inequalities still remain. Women continue to be less likely to work for pay, and when they do they work fewer hours than men. Women are also more likely to do unpaid family work and devote more hours to this type of work than men do.

Why has this situation changed so dramatically over such a short period of time? Far-reaching shifts in gender relations, family structure, and the economy have altered the context in which work occurs. Changing attitudes about the appropriate roles for men and women have made it more acceptable for women to engage in paid work outside the home and for men to participate in unpaid domestic work within the home. Delays in marriage, declines in fertility, and increases in cohabitation and divorce mean adults, especially women, are spending less time married and raising children and more time working for pay.[5] Increased educational levels of women, shifts in the skills required and valued by firms, and a greater demand for "female" labor have made it easier for women to find and keep good jobs. At the same time, declining wages for men with less than a college education, and the loss of manufacturing jobs (usually held by men), have increased the need for women to work for pay.[6] The demand for consumer goods and services has risen dramatically over the past several decades. For many families, no longer is one car or television enough. Home computers and CD and DVD players are now considered a must. Fifty years ago these things did not even exist.

In past decades, most research on gender and work focused on the causes and consequences of women's dramatic increase in paid work. But now that changing patterns of unpaid work among men are garnering increased attention, scholars have turned toward examining women's and men's paid and unpaid labor. Issues of gender equality, gender differences, and "appropriate" adult roles for women and men are fundamental to

questions about the changing nature of work. Whether the issue is the division of labor in and out of the home, the breakdown of the traditional family and its future, the entry of women into previously male-dominated occupations, or welfare reform, the debate inevitably returns to the question of gender equality.

Sociologists and demographers have long recognized the interconnectedness of people's family and work lives. A decade ago, prominent demographer and sociologist Andrew Cherlin noted that the steady movement of married women into the labor force is the "only constant" in the turbulent work and family landscape of the last 50 years.[7] In the past decade, the pace of change in work and family lives has slowed considerably,[8] suggesting that the decisions people make about with whom to live and how, whether to work in the labor market, and how much to work—and the context of opportunities and constraints in which they make these decisions—are related in fundamental ways. But have we reached a plateau in the pervasive increase in women's paid work, and is this connected to a slowdown in the transformation of work and family lives as well? Did the trend toward greater gender similarity in employment and household labor continue through the 1990s? Has the story of gender equality changed over recent cohorts, and does it differ for people in different types of families with different skills? What has had the most impact on changing gender inequality in paid and unpaid work?

In this report, we begin by describing changes in society that set the context for changes in women's and men's paid and unpaid labor. We then assess how women's and men's work lives have changed over the past three decades and whether these lives are becoming more or less equal. We describe some of the leading theories proposed to explain the allocation across gender lines between paid and unpaid work. Because changes in family structure and skill levels have affected men and women differently, we then investigate how they have altered men's and women's paid and unpaid work. Finally, because population change occurs in part because of shifts in the composition of the population, such as in the percent of people in various family statuses, and partly because of changes in people's behaviors, we attempt to sort out which factor is the most important in driving change in women's and men's work and in reducing the gender gap in both work domains.

We concentrate mainly on the 1980 to 2000 time period because this affords the most comparable data on paid and unpaid work and family arrangements and because trends for earlier periods are well documented elsewhere.[9] Unless otherwise noted, we restrict our analysis to adults ages 25 to 54 because this is the age range during which women and men are most likely to be combining work and family responsibilities in their own households.

## A Changing Economy and Society

Young women today begin their lives much differently than women did in the mid-20th century. Consider the life of a young woman reaching adulthood in the 1950s or early 1960s. Such a woman was likely to marry straight out of high school or take a clerical or retail sales job until she married—and was not likely to go to college. She would have moved out of her parents' home only after she married. She was likely to have children soon after she married, and in the unlikely event that she was working when she became pregnant, she would probably have quit her job and stayed home to care for her children while her husband had a steady job that paid enough to support the entire family.

Young women's lives follow a very different course today. A young woman reaching adulthood in the early 2000s is not likely to marry before her 25th birthday. She is likely to strike out on her own before marrying and may live with a partner or live on her own or with roommates before she marries. She is more likely than not to attend college and work at a paid job before and after marrying. She is not likely to drop out of the labor force after she has children, although she may curtail the number of hours she is employed to balance work and family responsibilities. She is also much more likely to divorce compared with a young woman in the 1950s, increasing the chances that she will need to work for pay to support herself and perhaps her children. Even if she remains married and prefers not to have a job, she may find she needs to work outside of the home so that the family can makes ends meet. Similar to her counterpart in the 1950s, this woman is likely to bear the responsibility for unpaid work within the home, although she is likely to devote fewer hours to housework.

Men's lives have not changed nearly as drastically, although they have experienced many of the same changes with regard to family patterns. Compared with the 1950s and 1960s, men are marrying later, having fewer children later in their lives, and are more likely to divorce. However, unlike women, most men were employed full time in the 1950s and 1960s and continue to be employed full time today. The big changes in men's lives have occurred in terms of household labor. More men today do not have spouses to perform unpaid work within the home, so they are doing it themselves. Even among married men, the amount of time spent caring for their children and doing housework has increased, in part because their wives are spending more time in paid work and thus have less time available for household work.

Although these scenarios depicting change in people's lives are truer for white and middle-class men and

women than for minorities and the poor, most of these differences are matters of degree; the norms described here have been remarkably widely held. This sketch shows in broad strokes how life has changed for women and men in recent generations.

Many of the changes in when women and men finish their education, marry, have children, and enter the labor force reflect changed economic circumstances since the 1950s. After World War II, the United States enjoyed an economic boom characterized by rapid economic growth, nearly full employment, rising productivity, higher wages, low inflation, and increasing earnings. The economic realities of the 1970s and 1980s were quite different. The two decades following the 1973 oil crisis were decades of economic uncertainty marked by a shift away from manufacturing and toward services, stagnating or declining wages (especially for less-educated workers), high inflation, and a slowdown in productivity. The 1990s were just as remarkable for the turnaround: sustained prosperity and low unemployment, albeit with increased inequality in wages, but with economic growth that seems to have reached many in the poorest segments of society.[10]

Material aspirations were lower during the mid-20th century, following 15 years of reduced consumption during the Great Depression of the 1930s and the war years of the early 1940s, than they are now. Despite the labor force difficulties for unskilled workers in the 1970s and 1980s, rising affluence continued in the United States. Per capita income and family income rose even as men's wages stagnated because women contributed earnings in a growing number of families. Demand for consumer goods also continued to increase. Expectations of "minimal standards of living" continued to rise and were substantially higher than at mid-20th century. These rising expectations created additional pressures for more market work on the part of women to meet families' consumption goals.

## Changing Work and Family Norms

In 1950, there was one dominant and socially acceptable way for adults to live their lives. Those who deviated could expect to be censured and stigmatized. First and foremost, adults were expected to form a family. The idealized family consisted of a homemaker-wife, a breadwinner-father, and two or more children. Most Americans shared an image of what a family should look like and how everyone should behave. These shared values reinforced the importance of the family, the institution of marriage, and the division of paid and unpaid labor along gender lines.[11] This vision of family life showed amazing staying power, even as its economic underpinnings were eroding.

For this 1950s-style family to thrive, Americans had to support distinct gender roles and the economy had to be strong enough for a man to financially support a family on his own.[12] Government policies and business practices perpetuated this family type by reserving the best jobs for men and discriminating against working women when they married or had a baby. After 1960, women and minorities gained legal protections in the workplace and discriminatory practices began to recede. A transformation in attitudes toward family behaviors also occurred. People became more accepting of divorce, cohabitation, nonmarital childbearing, voluntary childlessness, and sex outside marriage; less certain about the universality and permanence of marriage; and more tolerant of blurred gender roles.[13] The realization that marriage is no longer the only avenue to certain benefits such as companionship, raising children, and income pooling has made marriage more of an individual choice and less a requirement for adulthood. Among many adults, cohabitation and nonmarital childbearing are now seen as acceptable alternatives.

As women have become more similar to men in the labor market, attitudes about women's labor force participation have become increasingly liberal. Since the 1970s, there has been a relatively steady increase in approval of women's paid work. Nonetheless, disapproval remains of *mothers* working outside the home, more so among men than among women and particularly when young children are involved. That is, popular ideas about women's place in the workforce have become much more supportive of paid work for women, but many people are still concerned about the consequences for children of both parents combining paid work with family responsibilities.

Data from the General Social Survey show that the percent of Americans, men or women, who disapprove of a married women working even if her husband can support her declined from about one-third to under one-fifth between 1977 and 1998 (see Table 1). A dramatic decline also occurred in the percent agreeing it is more important for a wife to help her husband's career than to have one herself. In 1977, more women than men (61 percent and 53 percent, respectively) agreed with the statement, but by 1998 agreement slipped to 19 percent for both men and women.

Men and women disagree to a greater extent as to whether it is better if a man achieves outside the home and a woman cares for home and family. Although both women and men are much less likely to agree with this gendered division of labor in 1998 than they were in 1977, slightly more men (36 percent) than women (34 percent) continue to favor specialization.

Fewer people are concerned about women combining paid work and childrearing than in the past, as

*Table 1*

**CHANGE IN ATTITUDES ABOUT WOMEN'S ROLES AS WIFE, MOTHER, AND WORKER, 1977 AND 1998**

| | 1977 | | 1998 | |
|---|---|---|---|---|
| Attitudes about gender roles | % women | % men | % women | % men |
| Disapprove of married woman working if her husband can support her. | 35 | 32 | 18 | 17 |
| Agree it is more important for a wife to help her husband's career than to have one herself. | 61 | 53 | 19 | 19 |
| Agree it is better for everyone if man achieves outside home and woman takes care of home and family. | 63 | 69 | 34 | 36 |
| | 1977 | | 1998 | |
| Attitudes about mother's paid work and childrearing | % women | % men | % women | % men |
| Say a working mother cannot have as warm and secure relationship with child as nonworking mother. | 45 | 58 | 25 | 41 |
| Say a preschool child is likely to suffer if mother works. | 63 | 73 | 37 | 49 |

Source: Authors' tabulations of the General Social Survey (GSS), 1977 and 1998.

smaller percentages of both women and men think children will suffer if a mother is employed outside the home. A large gender difference exists, however, in these responses, and a relatively high proportion of men still question whether children do as well when their mother works for pay. Forty-one percent of men, compared with 25 percent of women, feel a working mother cannot have as warm and secure a relationship with her child as a mother who is not employed. And nearly half of men and more than one-third of women still feel that a preschool child is likely to suffer if a mother works for pay. By 1998, women and men seemed to hold similar attitudes about the desirability of women holding a job, but they differed when it came to believing children would suffer negative effects if their mothers worked, with men expressing greater concern about the costs to children and family life.

While the transformation of many of these attitudes occurred throughout the 20th century, the pace of change accelerated in the 1960s and 1970s. A new ideology was emerging during these years; it stressed personal freedom, self-fulfillment, and individual choice in living arrangements and family commitments.

# CHANGES IN PAID AND UNPAID WORK

People seek employment out of economic need—because work provides a sense of purpose and an arena for social contact—and because of cultural beliefs that assign prestige to people who are employed. Employment rates and levels are also influenced by life course stage and, increasingly, education.

## Paid Work

Paid work tends to be less common among women and men under age 25, many of whom are still in college, and for those over age 55, many of whom are retired. More highly educated women and men are more likely to work for pay than are less educated women and men. Gender is also related to workforce participation, but it matters less than it used to because sharply demarcated adult roles associated with marriage and parenting have eroded since the 1970s and because women have become more educated and skilled over time. As such "supply" factors and cultural attitudes toward employment shift, so too does the pattern of opportunities and constraints people face when they decide whether to work and then try to get a job. For example, many employers depend on female employees, and workplaces have become more hospitable to women.

Without a doubt, the most remarkable transformation in work in the last century was the increase in women's paid work. Women's employment rates climbed throughout the 20th century, but then skyrocketed between the 1950s and the 1980s with the surge of women with children entering the labor force.[14] Between 1950 and the mid-1960s, older women who had completed childbearing (and in many cases childrearing) accounted for most of the increase, in part because high rates of early marriage and fertility over this period limited the labor supply of young women.[15] Since the late 1960s, however, paid work has increased fastest among younger women, in particular among mothers with young children.[16] Substantial increases continued through the 1980s but have slowed over the past decade to an incremental trickle, as shown in Table 2 (page 81). Thus, after decades of monumental progress toward narrowing the gender gap in paid work, the revolution in women's paid work appears to have stalled.

The proportion of women ages 25 to 54 who were employed increased 16 percent in the 1980s, from 67 percent to 78 percent, but grew only an additional 1 percent in the 1990s. Over the same period, the proportion of men who were employed in the previous year fell slightly, from 93 percent in 1980 to 90 percent in 2000. Consequently, the gap separating women's and men's employment rates narrowed more sharply in the 1980s

*Table 2*

**PAID WORK FOR WOMEN AND MEN AGES 25–54, 1980–2000**

| | Women | | | Men | | | Ratio women/men (per 100) | | |
|---|---|---|---|---|---|---|---|---|---|
| Paid work | 1980 | 1990 | 2000 | 1980 | 1990 | 2000 | 1980 | 1990 | 2000 |
| Percent employed previous year* | 67 | 78 | 79 | 93 | 92 | 90 | 72 | 85 | 88 |
| Percent employed full-time/year-round** | 32 | 42 | 46 | 69 | 68 | 68 | 46 | 62 | 68 |
| Average annual hours employed*** | 1,037 | 1,305 | 1,396 | 1,955 | 1,951 | 1,950 | 53 | 67 | 72 |

* Ratios are the number of women employed in the previous year for every 100 men employed in the previous year.

** Ratios are the number of women employed full-time/year-round for every 100 men employed full-time/year-round.

*** For those employed, ratios are the number of hours women work for pay for every 100 hours men work.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

than in the 1990s: 72 women were employed for every 100 men in 1980, increasing to 85 per 100 in 1990, and to 88 per 100 in 2000.

Although examining employment differences in the past year provides us with valuable information about the continued transformation in women's labor force participation, it is perhaps not the most relevant indicator of women's progress in paid work in this day and age. Because women continue to be more responsible for home and family, they have less time to devote to paid work. The inability to work full time can have deleterious consequences for women's careers by reducing the amount of experience they gain over their lifetimes and forcing them into less desirable jobs. Employers may view part-time employees, who are mostly women, as less dedicated, and may therefore be less likely to promote them and bestow other work-related privileges upon them. Thus, a more relevant approach for examining women's recent progress in paid work is to examine the degree of attachment or commitment to paid work by considering the amount of time spent on the job. Time commitment can be measured by the average annual hours of work among those who are employed or the percent of women and men who are employed full-time/year-round. Perhaps the best measure of equality in paid work is that of full-time/year-round employment, since that measure captures those with the greatest investment in paid work.

Not only are women more likely to be employed than they were two decades earlier, but they also spend more time working for pay. Table 2 shows that the percent of women who were employed full-time/year-round rose from 32 percent in 1980 to 46 percent in 2000, with the majority of change occurring in the 1980s. Here we use the official definition of full-time/year-round work: at least 35 hours per week for 50 weeks. The number of average annual hours women worked (among those who worked) also increased the most between 1980 and 1990—from 1,037 hours to 1,305 hours. By 2000, women worked 1,396 hours per year, an average of 27 hours per week. Over the same period, only slightly more than two-thirds of men worked full-time/year-round, and average annual hours declined slightly between 1980 and 2000, again with the majority of this small change occurring in the 1980s.

As the gender gap in employment declined over this period, so did the gap in time spent working for pay. In 1980, there were only 46 women working full-time/year-round for every 100 men, but by 2000, the gap had narrowed to 68 women for every 100 men. Similarly, in 1980, women worked 53 hours for every 100 hours men did, but by 2000, they were putting in 72 hours for every 100 hours men did. Note again that the majority of change occurred in the 1980s.

Employment rates have risen among women and declined among men of all races and ethnicities. Nonetheless, racial and ethnic differentials in employment levels among adults persist, as shown in Box 1.

## Unpaid Work

In the previous section we documented the tremendous increase in women's labor force participation and in the amount of time worked for pay, but the pace of change in the 1990s was much slower than in the 1980s. Has women's and men's unpaid labor in the home also become more similar, and does the pace of change parallel that for paid employment?

While women's entrance into the labor force garnered the attention of researchers for the past 40 years, in the last two decades much attention has also been paid to the trends and gender differentials in unpaid household work. Why? Because time is finite. That is, the amount of time women spend doing household chores takes away from the time they could spend working for pay. In addition, gender specialization in families across the domains of paid and unpaid work is linked to a variety of negative labor market outcomes for women, including lower wages, lower lifetime earnings, diminished career advancement, and occupational segregation. Hence, it is important to know the extent to which women's time continues to be invested more in the family than in the economic sphere and whether the opposite remains true for men.

Decennial census data are well suited to examining gender differences in employment but do not provide information on women's and men's time in unpaid work at home. However, information collected in time diary surveys can fill this gap (see Box 2, page 83).[17] Data on the time adults spend in unpaid work were collected in time diary surveys in 1965, 1975, 1985, and from 1998 to 1999, and we use this data to describe differences in women's and men's time spent on unpaid housework.

Figure 1 (page 83) shows changes in housework and child care in 1965, 1975, 1985, and 1999 for women and men ages 25 to 54. Women's total weekly household work—housework and child care—declined from 37.8 hours in 1965 to 23.8 hours in 1999. The entire decline, however, was concentrated in housework, which dropped 13.6 hours per week over the period (from 30.4 hours to 16.8 hours). Although dipping slightly between 1965, 1975, and 1985, time caring for children was spent nearly the same in 1965 and 1999 (about seven hours per week) despite declines in fertility. Hence, women have balanced increased time in paid work with decreased time in unpaid housework, but have preserved time with children.

*Box 1*

## Racial and Ethnic Differences in Women's and Men's Employment

In 2000, 81 percent of white women, 79 percent of black women, 68 percent of Latina women, and 74 percent of Asian women were employed in the previous year (see table). The slightly higher employment rate among white women relative to black women represents a reversal from the historical trend, as throughout the 20th century full-time domesticity was more common among white women than black women.[1] What explains these trends?

Many people assume that women's increased employment results from a drop in men's earnings. That assumption would fit with the historical pattern of black women having higher employment rates than white women. However, we also saw booms in both women's employment and men's earnings simultaneously in the post-World War II period. Moreover, women's employment rates increased faster during the 1980s than they did in the 1990s, even as men's employment rates fell faster during the 1990s.

A closer look at the trends by race and ethnicity shows that white women had the fastest increases in the 1980s. In the 1990s, however, white women's employment increases cooled off, and black women actually had steeper increases, although no group approaches the increases white women had in the 1980s.

One possible reason for white women's higher employment rates could be their more favorable labor "supply" characteristics, particularly higher levels of education. But that condition has long been the case. A more promising explanation is that the demand for jobs in which white women are concentrated increased more quickly than the demand for jobs typically held by black women. In a separate analysis, sociologist Philip Cohen has shown that, in the late 1970s, black women were about twice as likely as white women to work in those occupations that subsequently declined at the fastest rates in the following 20 years—and white women were twice as likely to work in the fastest-growing occupations.[2] Thus, economic development was concentrated in those sectors of the economy in which white women were already employed.

As shown in the table, men's employment levels also vary across racial and ethnic groups. In 2000, 93 percent of white men, 79 percent of black men, 87 percent of Latino men, and 90 percent of Asian men were employed during the previous year. Over recent decades, black men's employment rates have declined more than those of other groups. The employment gap between white men and black men increased from 12 percentage points to 14 percentage points between 1980 and 2000. Racial inequality in employment is linked with changes in the industrial structure of the U.S. economy, which have reduced the supply of blue-collar manufacturing jobs and relocated jobs away from areas of black residential concentration.[3] Industrial restructuring has also increased the premium employers place on higher education, and black men continue to lag behind white men in college attainment.

**Percent of Women and Men Employed Previous Year by Race and Ethnicity, 1980–2000**

| | Women | | | Men | | |
|---|---|---|---|---|---|---|
| | 1980 | 1990 | 2000 | 1980 | 1990 | 2000 |
| White | 68 | 79 | 81 | 95 | 94 | 93 |
| Black | 69 | 75 | 79 | 83 | 82 | 79 |
| Latino | 59 | 66 | 68 | 90 | 89 | 87 |
| Asian/Pacific Islander | 69 | 72 | 74 | 91 | 90 | 90 |

Note: Race/ethnic groups are mutually exclusive, with descending selection: Latino, black, Asian/Pacific Islander, white.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

The end result is that gender differences in employment rates have decreased for all groups, although the changes were more modest in the 1990s for all groups except blacks. The employment gender gap has been eliminated among blacks, not because black women's employment rate outstrips that of other women, but because of black men's relatively low levels of employment. The gap is largest among Latinos, but in contrast to blacks this gap results from Latina women's weak employment picture. Nonetheless, women's and men's economic roles have become much more similar over recent decades for all major racial and ethnic groups.


**References**

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2. Philip N. Cohen, "Demanding Work: Black and White Women's Employment, 1976-2000" (unpublished manuscript).

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*Box 2*

## TIME DIARY DATA

In time diary studies, respondents are asked to provide a chronological accounting of the previous day's activities from midnight to midnight, including what they were doing, what time the activity started and stopped, where they were, whether they were doing anything else, and who else was present. We use these data to calculate weekly hours of housework and child care. Considerable research has established that estimates of unpaid work from time diary studies are more accurate than estimates from stylized survey questions such as "how much time do you typically spend in [activity] over an average day/week?"[1]

Trends over time in market work are more readily measured than trends in unpaid work. Federal data collections (most important, the Current Population Survey) monitor paid work on a monthly basis in order to produce estimates of unemployment for the system of national accounts. Work done in the home for one's family has never been included in measures of national wealth, such as the gross domestic product, and therefore the measurement of household work has been far less systematic and frequent.

The federal government is currently collecting time diary information in one module of the Current Population Survey. This is the first federal time diary study conducted in the United States; earlier studies were conducted at the University of Michigan (1965 and 1975) and the University of Maryland (1985 and from 1998 to 1999). As a result, existing time use studies have relatively small samples that do not allow examination of time in household labor by detailed family status, race and ethnicity, and socioeconomic differences. They do allow researchers, however, to look at gender differences and change over time.

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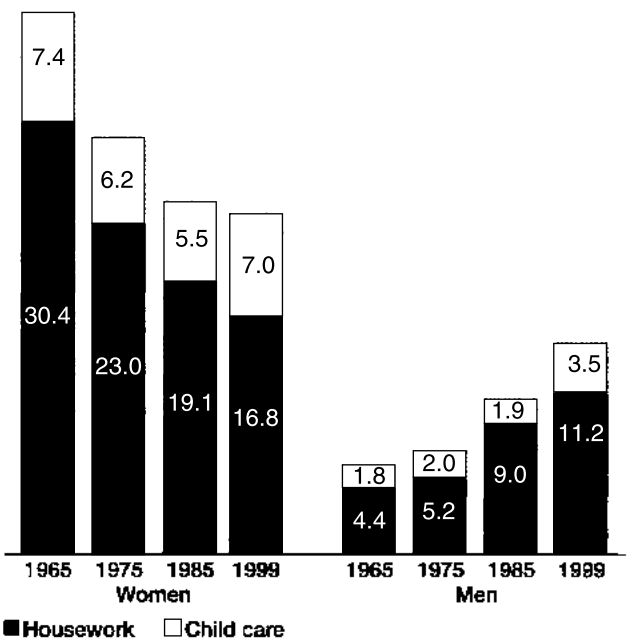
*Figure 1*

## CHANGES IN WOMEN'S AND MEN'S WEEKLY HOURS OF UNPAID WORK, AGES 25–54, 1965–1999




Source: Authors' tabulations of the U.S. Time Use Studies, 1965, 1975, 1985, and 1999.

Men's time doing housework and taking care of children more than doubled over the period, rising from 6.2 hours in 1965 to 14.7 hours in 1999. Nonetheless, although the gap is smaller today than in 1965, women continue to do about 40 percent more unpaid work than men. For women, time in unpaid labor declined the most between 1965 and 1975, with slower declines occurring thereafter. For men the story is quite different: Unpaid labor increased the least between 1965 and 1975, while the greatest gains were realized between 1975 and 1985. Increases in men's unpaid labor continued into the 1990s, but at a slower pace. Of course, the number of hours spent caring for children depends in part on family status—whether one is married or has young children. (We will narrow our focus later in this report to examine how gender differences in family status affect unpaid work.)

Table 3 reports the types of housework women and men did in 1965, 1975, 1985, and 1999. Housework is separated into core tasks (cooking meals, meal cleanup, housecleaning, and laundry) and more discretionary and less time-consuming tasks (outdoor chores and repairs, gardening/animal care, and bill-paying).

Most housework time is spent cooking, cleaning, and doing laundry, and women continue to spend more time in these core tasks than do men. Nevertheless, the gap between women's and men's core housework has shrunk substantially. Whereas women put in 12 hours per week for every one hour men spent cooking and cleaning up after meals in 1965, by 1999 women were spending only twice as much time in these activities as men. The ratio of women's to men's time in routine housecleaning and laundry also declined significantly over the period, falling from 18.8 to 1.8 and 29.0 to 4.5, respectively. The dwindling difference between women's and men's cooking and cleaning time is due both to men's increased time in these activities as well as to women's decreased time. Sociologist Liana Sayer finds that two factors contribute to these changes: Fewer women are spending time cooking and cleaning and their average time has declined,

*Table 3*

**TRENDS IN AVERAGE WEEKLY HOUSEWORK HOURS FOR WOMEN AND MEN AGES 25–54, 1965–1999**

| | Women | | | | Men | | | | Ratio women's hours to men's hours | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1965 | 1975 | 1985 | 1999 | 1965 | 1975 | 1985 | 1999 | 1965 | 1975 | 1985 | 1999 |
| Total housework | 30.4 | 23.0 | 19.1 | 16.8 | 4.4 | 5.2 | 9.0 | 11.2 | 6.9 | 4.4 | 2.1 | 1.5 |
| Core housework (total) | 27.4 | 20.8 | 15.7 | 13.2 | 1.7 | 1.8 | 3.8 | 5.7 | 16.1 | 11.6 | 4.1 | 2.3 |
| Cooking meals | 9.5 | 8.4 | 6.6 | 5.4 | 0.8 | 1.0 | 1.9 | 2.3 | 11.9 | 8.4 | 3.5 | 2.3 |
| Meal cleanup | 4.6 | 2.5 | 1.8 | 1.0 | 0.4 | 0.2 | 0.3 | 0.6 | 11.5 | 12.5 | 6.0 | 1.7 |
| Housecleaning | 7.5 | 6.4 | 5.0 | 4.1 | 0.4 | 0.4 | 1.2 | 2.3 | 18.8 | 16.0 | 4.2 | 1.8 |
| Laundry, ironing | 5.8 | 3.5 | 2.3 | 2.7 | 0.2 | 0.1 | 0.3 | 0.6 | 29.0 | 35.0 | 7.7 | 4.5 |
| Other housework (total) | 3.0 | 2.2 | 3.3 | 3.6 | 2.7 | 3.5 | 5.2 | 5.5 | 1.1 | 0.6 | 0.6 | 0.7 |
| Outdoor chores | 0.2 | 0.8 | 0.4 | 1.0 | 0.5 | 0.9 | 1.0 | 2.2 | 0.4 | 0.7 | 0.4 | 0.5 |
| Repairs | 0.4 | 0.6 | 0.6 | 0.5 | 1.3 | 1.6 | 1.9 | 1.5 | 0.3 | 0.4 | 0.3 | 0.3 |
| Gardening, animal care | 0.6 | 0.5 | 0.8 | 0.8 | 0.2 | 0.3 | 0.8 | 0.8 | 3.0 | 1.7 | 1.0 | 1.0 |
| Bills, other financial | 1.7 | 0.6 | 1.6 | 1.3 | 0.7 | 0.7 | 1.6 | 0.9 | 2.4 | 0.9 | 1.0 | 1.4 |

Source: Authors' tabulations of the U.S. Time Use Studies, 1965, 1975, 1985, and 1999.

whereas more men are spending some time cooking and cleaning and their average cooking and cleaning times have increased.[18] Laundry appears to be the household task men resist the most. Declines in the gender "laundry" gap are mostly due to the three-hour drop in women's time, likely because of decreased ironing, rather than larger increases in men's time. The introduction of permanent-press clothing has reduced the need to iron some clothes. Women today may also be more willing to send clothes to the cleaners for pressing, in contrast to the 1950s when housekeeping standards mandated careful ironing of family members' clothes and even bed linens. Despite lingering differences in laundry, the growing similarity in women's and men's core unpaid work parallels growing similarity in paid work.

In terms of other housework, there was a marginal increase in the time women devoted to these tasks, from 3.0 hours in 1965 to 3.6 hours in 1999; and a larger increase among men, from 2.7 to 5.5 hours over the same period. Except in 1965, when women and men were putting in about the same amount of time, women have spent about 60 percent as much time as men in noncore housework. The distribution of time across tasks has changed somewhat. Since 1985, women and men have been more equal with regard to gardening and animal care than other tasks. In 1999, compared with men, women spent less time doing outdoor chores and repairs and more time paying bills and dealing with other financial matters.

## Change Across Cohorts

As discussed earlier, women's and men's decisions about whether and how much to work both in and outside the home are influenced by the demographic, economic, legislative, and normative environments they experience as they enter adulthood. The societal context in which young women and men evaluate alternative work and family paths (and the array of options available) varies tremendously over time. Consequently, a useful way of examining changing patterns of work given these varied environments is to look at the experiences of different cohorts or generations. A *cohort* consists of a group of individuals who share a unique constellation of circumstances, and is often defined by year of birth. Table 4 (page 85) describes the birth cohorts used in this report—adults ages 25 to 54 in 1980, 1990, and 2000—and details the social and economic circumstances occurring at the time they reached adulthood.

The World War II cohort consists of women and men born from 1936 to 1945 who came of age from the mid-1950s to the mid-1960s. The post-World War II period was one of sustained economic growth fueled by an unprecedented expansion of consumption. The G.I. Bill allowed many men to attend college and buy homes in suburban developments that were once farmland. Even among less-educated men, the growth of stable and well-paying blue-collar jobs meant they too could earn a wage sufficient to support a family in middle-class style. Marriage was early and nearly universal. Good economic prospects for the majority of men, in tandem with employment discrimination against married women, also meant this was a period of unusually high fertility and gender specialization, with women tending to the house and children while men provided financially. Despite the economic good times, a family consisting of a breadwinner husband and a caregiving wife was more common among whites than minorities. The growing Civil Rights Movement was demanding that the benefits of economic prosperity be shared more equally among all racial and ethnic groups. Additionally, a revitalized women's movement was gaining strength, calling into question the desirability of the extreme gender speciali-

*Table 4*

**BIRTH COHORTS BY PERIOD OF ADULT TRANSITIONS AND AGE IN 1980, 1990, AND 2000**

| Birth cohort | Description | Transition to adulthood | Work and family societal context | Age at U.S. census in 1980 | 1990 | 2000 |
|---|---|---|---|---|---|---|
| 1926-1935 | Parents of Baby Boom | Mid-1940s/mid-1950s | Idealization of separate spheres; sustained economic expansion | 45–54 | 55–64 | 65–74 |
| 1936-1945 | World War II | Mid-1950s/mid-1960s | Questioning gender specialization; economic expansion | 35–44 | 45–54 | 55–64 |
| 1946-1955 | Early Baby Boom | Mid-1960s/mid-1970s | Civil Rights Act; sexual freedom; economic restructuring begins | 25–34 | 35–44 | 45–54 |
| 1956-1965 | Late Baby Boom | Mid-1970s/mid-1980s | Demise of male breadwinner model; economic restructuring and downsizing | 15–24 | 25–34 | 35–44 |
| 1966-1975 | Generation X | Mid-1980s/mid-1990s | Shared breadwinning/caregiving; fatherhood rights; economic turbulence; welfare reform | 5–14 | 15–24 | 25–34 |

zation characteristic of the 1950s. Both developments set the stage for a different work and family context experienced by subsequent generations.

The early baby-boom cohort consists of the large numbers of people born from 1946 to 1955 who came of age from the mid-1960s to the mid-1970s. This was a period of heady social transformation and continued economic prosperity. The renewed feminist movement was in full swing, supported by passage of landmark legislation such as Title VII of the Civil Rights Act of 1964, which prohibited firms with 15 or more employees from discriminating on the basis of sex, race, national origin, and religion; passage of Title IX in 1973, which prohibited discrimination against women in federally funded educational institutions; and the Pregnancy Discrimination Act of 1967, which prohibited discrimination in hiring and firing pregnant women. Additionally, the introduction of the birth control pill and the legalization of abortion helped liberalize attitudes on premarital sex. Together, these shifts led to major expansions in women's educational and economic opportunities and further questioning of sharply differentiated male and female adult roles.

The late baby-boom cohort consists of individuals born from 1956 to 1965. This generation came of age in the mid-1970s to the mid-1980s during economic conditions quite different from those enjoyed by prior generations. When baby boomers hit working age in the 1970s, the economy was not as hospitable as it had been for their parents. These late baby boomers postponed entry into marriage, delayed having children, and found it difficult to establish themselves in the labor market. They came face to face with industrial restructuring and downsizing. Many of the jobs being created replaced or at least complemented work previously done by women at home—cooking and cleaning, caring for the elderly and the sick—and most of these jobs were filled by women who were pouring into the paid labor market.[19] The shift from manufacturing to service industries meant men's job opportunities and wages stagnated while demand for women's labor increased. The necessity of women contributing economically to the family increased over the period, in particular among working-class and nonwhite families. Social change also quieted among increasingly strident claims that women's growing employment opportunities were threatening the future of the family. The optimism of the feminist movement that women could "have it all" was being replaced by growing recognition of the "second shift" of household labor many women experienced after putting in a first shift of paid work.

Finally, the Generation X cohort consists of women and men born from 1966 to 1975 who entered adulthood in the mid-1980s to the mid-1990s. These young adults came of age during more favorable economic times than the late baby-boom cohort but also during times of rapid swings in the business cycle. In general, wage growth was slow, job markets tight, job security shaky, and housing costs were soaring ever upward, yet unemployment was also low. Times were also better for some groups than others; economic fortunes were increasingly dependent on educational attainment. College-educated workers experienced rising wages and favorable employment opportunities, whereas industrial shifts eroded less-educated men's economic circumstances and meant they could no longer provide a middle-class standard of living for their families on their wages alone. Poor single mothers, facing the slipping economic prospects of potential spouses—and then punitive welfare reform that required paid work—entered employment in increasing numbers. Finally, this generation grew up in an environment of legal and normative equality in opportunity (if not yet equal outcomes) between women and men, and most

*Table 5*

**PERCENT OF WOMEN AND MEN WHO ARE FULL-TIME/YEAR-ROUND WORKERS, BY AGE AND COHORT**

| Cohort | Ages 25–34 | Ages 35–44 | Ages 45–54 |
|---|---|---|---|
| **Women** | | | |
| 1966-1975 Generation X | 44 | — | — |
| 1956-1965 Late Baby Boom | 42 | 46 | — |
| 1946-1955 Early Baby Boom | 32 | 43 | 47 |
| 1936-1945 World War II | — | 32 | 41 |
| 1926-1935 Parents of Baby Boom | — | — | 31 |
| **Men** | | | |
| 1966-1975 Generation X | 64 | — | — |
| 1956-1965 Late Baby Boom | 65 | 70 | — |
| 1946-1955 Early Baby Boom | 66 | 71 | 69 |
| 1936-1945 World War II | — | 73 | 70 |
| 1926-1935 Parents of Baby Boom | — | — | 71 |
| **Ratio women/men (per 100)** | | | |
| 1966-1975 Generation X | 69 | — | — |
| 1956-1965 Late Baby Boom | 65 | 66 | — |
| 1946-1955 Early Baby Boom | 48 | 61 | 68 |
| 1936-1945 World War II | — | 44 | 59 |
| 1926-1935 Parents of Baby Boom | — | — | 44 |

— Not applicable.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

people in Generation X have reached adulthood expecting to combine employment, marriage, and parenting. While behavior lags normative changes, work and family have been redefined as men's issues too, in part because of the growing cultural emphasis on fathers' daily involvement with children.

Table 5 shows the percent of women and men who worked full-time/year-round in the cohorts of the parents of the baby boom, World War II, early baby boom, late baby boom, and Generation X. The rows show changes in labor force attachment as each birth cohort ages; the columns show how labor force attachment has changed across birth cohorts.

The table shows that each succeeding cohort of women had higher rates of full-time/year-round employment. The greatest change for women ages 25 to 34 occurred between the early baby-boom and the late baby-boom cohorts, with the latter group having a 10-point higher rate of full-time/year-round employment. Among young women, change between the late baby-boom and Generation X cohorts is relatively small by comparison (only 2 percentage points). Note that large gains were made for women ages 35 to 44 between the World War II and early baby-boom cohorts and for older women between each successive cohort shown in the table. The patterns are the same regardless of whether one examines full-time/year-round employment, labor force participation in the previous year, or the average annual number of hours worked.

Sociologist Suzanne Bianchi's analysis of cohorts through the late baby boom indicated that the replacement of cohorts was an important aspect of women's growing labor force attachment, as younger cohorts with higher rates of full-time/year-round employment "replaced" older cohorts with lower rates of full-time/year-round employment.[20] However, women in one cohort—early baby boomers who brought the feminist movement into the workplace—dramatically increased their employment rates as they moved from early to mid-adulthood. The late baby boomers, despite starting out at higher rates, have not shown the same pattern of increase. Finally, women in the last cohort, Generation X, have started their young adulthoods with only slightly higher rates of employment than previous generations. The patterns of these last two cohorts account for the slower employment growth among women in the 1990s.

Table 5 confirms that men's labor force attachment has remained quite similar across generations. This pattern also holds regardless of whether one examines full-time/year-round work, labor force participation in the past year, or average annual hours worked. This trend, along with the slowing pace of generational change among women, means that gender differences in employment diminished only slightly between the late baby-boom cohort and the Generation X cohort. Despite economic and cultural changes, women's labor force participation, full-time/year-round employment, and hours in the labor force continue to be less than men's. On the one hand, these data make it clear that in the past decade the revolution in women's paid work has sputtered; consequently gender specialization has weakened only slightly and significant gaps in men's and women's labor force attachment still remain. On the other hand, the data also indicate that Generation X has not "solved" the problem of managing both work and family responsibilities by retreating to the 1950s' pattern of separate spheres, because women continue to make small gains relative to men in the sphere of paid work.

Generational changes also occurred in unpaid labor. Table 6 (page 87) shows changes in the number of hours per week women and men spent doing housework. Because the data for this table are from 1965, 1975, 1985, and 1999, the cohorts are not exactly the same as those presented in Table 4. With the exception of Generation X, each birth cohort range is actually five years later than the range in Table 4. We could have presented numbers for the exact cohorts in the table, but this approach would have changed the age ranges. For example, the same group of people who were ages 25 to 34 in the 1980 Census would have been 20 to 29 in the 1975 time diary data. Because both paid and unpaid labor are sensitive to age categories, we kept the age categories the same and used the same cohort labels.

*Table 6*

**AVERAGE WEEKLY HOURS OF HOUSEWORK BY AGE, SEX, AND COHORT**

| Cohort* | Ages 25–34 | Ages 35–44 | Ages 45–54 |
|---|---|---|---|
| **Women** | | | |
| Generation X | 16.9 | — | — |
| Late Baby Boom | 17.3 | 18.3 | — |
| Early Baby Boom | 20.7 | 20.3 | 14.9 |
| World War II | 30.2 | 23.2 | 20.3 |
| Parents of Baby Boom | — | 31.2 | 26.1 |
| **Men** | | | |
| Generation X | 8.4 | — | — |
| Late Baby Boom | 7.2 | 13.1 | — |
| Early Baby Boom | 4.3 | 10.3 | 12.1 |
| World War II | 3.7 | 5.0 | 10.1 |
| Parents of Baby Boom | — | 4.5 | 7.2 |
| **Ratio women's hours/men's hours** | | | |
| Generation X | 2.0 | — | — |
| Late Baby Boom | 2.4 | 1.4 | — |
| Early Baby Boom | 4.8 | 2.0 | 1.2 |
| World War II | 8.2 | 4.6 | 2.0 |
| Parents of Baby Boom | — | 6.9 | 3.6 |

— Not applicable.

* Birth cohort ranges are five years later than ranges shown in Table 4.

Source: Authors' tabulations of the U.S. Time Use Studies, 1965, 1975, 1985, and 1999.

Table 6 shows that, with the exception of Generation X, women are spending appreciably less time doing housework across each successive cohort. Compared with their World War II counterparts, Generation X women are spending about 13 fewer hours per week on housework. Among young women, however, most declines in housework occurred between the World War II and early baby-boom cohorts, concurrent with declines in fertility and the rise of the women's movement. The drop-off in housework seems to have stalled among young women in Generation X; these women are doing nearly the same amount of housework as their late baby-boom counterparts.

In contrast, men in each successive cohort are spending substantially more hours doing housework, with the most substantial gains occurring between the early and late baby-boom cohorts. Generation X men continued the trend toward doing more unpaid labor, but the relative increases were less than they had been in previous generations. Additionally, whereas women reduce housework time as they age, men spend more time in household chores over their life course. For example, whereas the housework gap is 16 hours per week comparing early baby-boom women with men ages 25 to 34, the gap is only three hours per week comparing early baby-boom women and men at ages 45 to 54. Women reduce housework later in their adult lives because the demand for child-generated housework such as daily laundry and frequent housecleaning drops as children grow older. Men may increase housework over their life course because fewer of them at ages 25 to 34 are married and raising children, and those who are married are becoming established in their careers. Empirical research suggests that some couples integrate work and family responsibilities when their children are young by adopting a traditional division of labor, but that specialization decreases once children enter school.[21] This pattern may be more common among more recent cohorts, however, as women's greater investments in housework vis-à-vis men continue into older ages for earlier cohorts. Nevertheless, because men are doing more housework and women less, women's and men's housework time is becoming more equal across successive cohorts, although the gains registered by Generation X are relatively small in comparison to previous cohorts.

## Explaining Allocation of Time Between Paid and Unpaid Work

Researchers have advanced three different theories to explain how women and men divide their time between paid and unpaid work. Economic and bargaining perspectives emphasize rationality and relative resources and why allocations should have changed in response to demographic, economic, and normative shifts. The gender perspective emphasizes the resiliency of the gender system and elements that work against change in the division of labor.

Economic models of time use posit that households rationally and efficiently allocate time, typically through specialization of one partner in paid work and the other in unpaid work. These models also posit that the reason specialization is more efficient and the reason men specialize in paid work while women specialize in unpaid work is because of human capital and biological differences. Since women are the ones who bear and care for infants, they are assumed to be more productive in unpaid work than are men. Since men generally have more education and work experience than women, they are assumed to be more productive in paid work than are women.[22]

The second perspective focuses on bargaining or exchange among partners: The person with more power will do less unpaid work because household labor is less desirable than paid work. People use resources such as education and income to strike the best bargain they can. Husbands' higher resources mean they have more leverage to buy out of tasks they do not wish to perform, such as unpleasant domestic chores, and to engage in things they prefer, such as leisure.[23] Additionally, whereas women's education and employment have increased over the past 30 years, they continue to earn less than men; once married, women are more dependent on the eco-

nomic resources provided by men. As a result, this perspective posits, women have less bargaining power and less leverage to negotiate higher levels of housework and child care from husbands. Empirical evidence suggests that men do more unpaid work in the home when their wives earn a higher percent of the household income, especially if women are defined as co-providers.[24]

The third perspective posits that the purpose of the gendered division of labor is not simply to produce household goods and services but also to define and express gender relations within families. This perspective was developed to explain why women and men in married or cohabiting relationships appear not to simply trade off time spent in paid and unpaid work.[25] Housework and child care are not neutral chores but instead are "symbolic enactments" of unequal gender relations. Women display femininity and family caring by cooking, cleaning, and raising children; men display masculinity by avoiding these same tasks.[26]

Studies show that women and men in marital households, compared with other household types, have the greatest gap in housework time.[27] When couples marry, women's housework hours go up while men's decline.[28] In other words, wives and husbands are displaying their "proper" gender roles through the amount and type of housework they perform.

What do these theories have in common? All suggest that family status affects how women and men allocate their time between paid and unpaid labor. In the next section, we narrow our focus to how family status affects paid and unpaid work among women and men.

## Family Status

All women and men need to attend to the basics of life: securing money to buy necessities and maintaining their health and well-being and that of their families. Yet the options for meeting these needs are altered by whether one has a partner who can help to meet these needs and whether one is also responsible for children. Because the number of hours in a day is fixed, the work and family roles associated with meeting these needs compete for men's and women's time and energy. Work affects family formation decisions, and family formation affects work decisions. Recent evidence suggests that work also exerts a strong influence on the scheduling of day-to-day activities and the organization of family life.[29] Marriage can make things easier because theoretically there are two people available to do the two types of work that need to be done. Historically, many married women specialized in the family sphere by taking primary responsibility for housework and child care, whereas many married men specialized in the work sphere by taking primary responsibility for providing financially for the family. Today, marriage still increases a woman's unpaid labor because she has a new husband to care for, and increases a man's paid labor because he has a new wife to provide for. Children mean more unpaid work because they require regular care and increase the amount of housework a family has to do. Children also increase the paid work needed to cover additional food, clothing, and health care costs. Hence, in married-couple families, children tend to increase women's unpaid work and increase men's paid work. Gender roles have become less rigid, and today more couples expect to share responsibility for both work and family spheres. There are also more single-parent families who must manage work and family roles, more couples without children, and more individuals living by themselves. How have these changes affected women's and men's work, and have they led to more or less gender equality across work spheres?

An adequate answer to these questions hinges on understanding how the family has changed. In recent decades, the family share of U.S. households has been declining. In 1960, 85 percent of households were family households—households having two or more individuals related by marriage, birth, or adoption; by 2000, just 69 percent of households were family households.[30] At the same time, nonfamily households, which consist primarily of people who live alone or who share a residence with roommates or with a partner, have been on the rise. The fastest growth was among those living alone. The proportion of households with just one person doubled from 13 percent to 26 percent between 1960 and 2000. These changes are important to consider in examining trends in women's and men's work overall, because a shift from married-couple households to one-person households affects the choices people have in allocating time between paid and unpaid work and because single childless women and men tend to have more similar paid and unpaid work patterns. Not taking these changes into account could lead one to mistakenly conclude that work allocation has changed, when those changes are really due to these demographic shifts.

Most of the decline in the number of family households reflects the decrease in the share of married-couple households with children. Declines in fertility within marriage between 1960 and 1975, later marriage, and frequent divorce help explain the shrinking proportion of households consisting of married couples with children. The divorce rate rose sharply between 1960 and 1980 and then eased, while the rate of first marriages declined steadily after 1970. Two-parent family households with children dropped from 44 percent to 24 percent of all households between 1960 and 2000, while single-parent family households grew from 4 percent to 9 percent of all households.[31] These shifts have implications for examining changes in women's and men's work overall, because now fewer people have children to care for and women are more

likely to be single parents. Again, if we do not take these changes into account, we cannot know whether changes in work are due to changes in work behavior or shifting demographics.

Paralleling changes in work, change in household composition began slowly in the 1960s, as society was facing some of the most radical social changes in U.S. history and the leading edge of the huge baby-boom generation was reaching adulthood. The steepest decline in the share of family households was in the 1970s, when the first baby boomers entered their 20s. By the 1980s, change was still occurring but at a much slower pace. By the mid-1990s, household composition had apparently stabilized.

Television shows reflect the norms and culture of the time periods in which they are set and can help illustrate the changes just described. "Happy Days," a popular sitcom from the mid-1970s to mid-1980s, was set in the 1950s and reflected a time in which young men and women got married relatively young, presumably had children shortly after, and most likely stayed married for life. Although some young women on the show postponed marriage and childbearing, they did not cohabit, live with male roommates, or have children outside of marriage. In stark contrast, the award-winning sitcom "Friends," set in the 1990s and the early years of 2000, depicts young adult lives that involved multiple marriages and divorces, opposite-sex roommates, cohabitation, and children born out of wedlock.

To get a better idea of how these two television shows stack up against reality, we can examine changing family statuses among young adults who are just beginning to adopt family and work roles. Table 7 shows the percent of women and men ages 25 to 34 who have remained single (have never been married) and childless (not living in the same house with an own child under age 18) across cohorts. Both women and men are remaining single longer in recent cohorts. For example, 22 percent of Generation X women ages 30 to 34 have never married, compared with only 10 percent of early baby-boom women. Men experienced a similar increase in singlehood. About 29 percent of Generation X men were not married by ages 30 to 34, almost double the percent of early baby-boom men who never married.

Generation X women and men are also more likely than past generations to remain childless or delay parenthood well into their 30s. Among women ages 30 to 34, less than one-quarter of early baby-boom women were childless (not living with their own biological, step, or adopted children), compared with nearly one-third of Generation X women. Many Generation X women are simply delaying parenthood until their late 30s, but some will never become mothers. About twice as many women ages 40 to 44 in 2000 (the ages at which most childbearing has occurred) were childless in 2000 compared with 1980 (19 percent versus 10 percent). Higher

*Table 7*

**WOMEN AND MEN WHO HAVE REMAINED SINGLE AND CHILDLESS, BY AGE AND COHORT**

| | % never married* | | % childless* | |
|---|---|---|---|---|
| Cohort | Ages 25–29 | Ages 30–34 | Ages 25–29 | Ages 30–34 |
| **Women** | | | | |
| 1966-1975 Generation X | 38 | 22 | 49 | 32 |
| 1956-1965 Late Baby Boom | 32 | 18 | 47 | 30 |
| 1946-1955 Early Baby Boom | 21 | 10 | 41 | 23 |
| **Men** | | | | |
| 1966-1975 Generation X | 49 | 29 | 69 | 51 |
| 1956-1965 Late Baby Boom | 45 | 25 | 67 | 47 |
| 1946-1955 Early Baby Boom | 32 | 15 | 60 | 38 |
| **Ratio women/men (per 100)** | | | | |
| 1966-1975 Generation X | 78 | 76 | 71 | 63 |
| 1956-1965 Late Baby Boom | 71 | 72 | 70 | 64 |
| 1946-1955 Early Baby Boom | 66 | 67 | 68 | 61 |

* Percent remaining single are the percent who have never married. Percent childless are the percent not living with any children under age 18.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

rates of childlessness as well as delays in becoming a mother appear to be common strategies among women to increase their chance of landing and keeping a good job and establishing their economic independence.[32] Generational increases in childlessness or delayed parenthood are also apparent among men. As with trends in work, the majority of the increases among men and women who remain single and childless occurred between the early and late baby-boom generations. Change continued to occur between the late baby-boom and Generation X cohorts, but at a much slower pace.

How do young women and men compare in adopting family roles? Simply put, at any given age men are less likely to have these responsibilities than women, but the gap is closing. For example, among 25-to-29-year-olds, men are more likely to remain single than women within each generation. But whereas in the early baby-boom generation there were only 66 never-married women for every 100 never-married men, in Generation X the number increased to 78 women for every 100 men. The patterns are similar for childlessness; more men than women are childless.

Comparing gender differences in remaining single and remaining childless highlights an important finding. Although women and men have become more similar in terms of singlehood, more women than men are raising children, and gender differences are quite similar across cohorts. For example, among 30-to-34-year-olds, there were 61 childless women for every 100 men in the early baby boom, compared with 63 per 100 in Generation X. These findings have important implications for women's

*Table 8*

**WOMEN AND MEN AGES 25–34 IN DIFFERENT FAMILY STATUSES, BY COHORT**

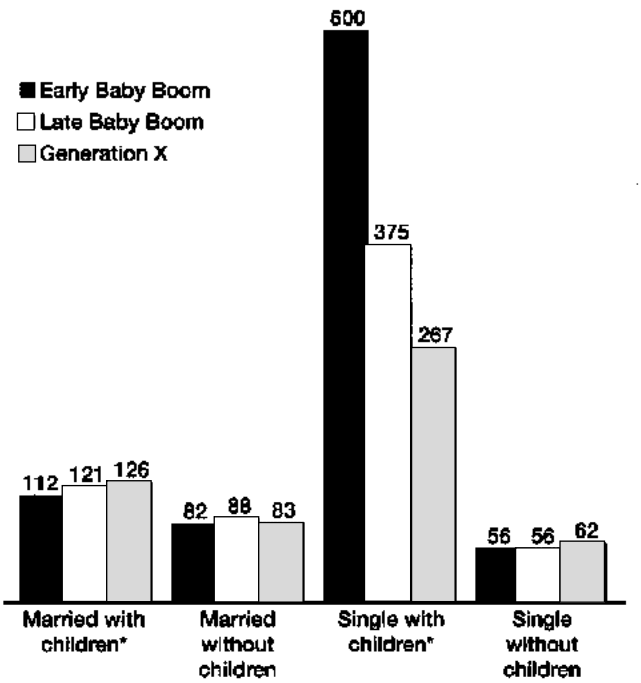
| Cohort | % married with children* | % married without children | % single with children* | % single without children |
|---|---|---|---|---|
| **Women** | | | | |
| 1966–1975 | | | | |
| Generation X | 43 | 15 | 16 | 26 |
| 1956–1965 | | | | |
| Late Baby Boom | 47 | 15 | 15 | 23 |
| 1946–1955 | | | | |
| Early Baby Boom | 55 | 14 | 12 | 18 |
| **Men** | | | | |
| 1966–1975 | | | | |
| Generation X | 34 | 18 | 6 | 42 |
| 1956–1965 | | | | |
| Late Baby Boom | 39 | 17 | 4 | 41 |
| 1946–1955 | | | | |
| Early Baby Boom | 49 | 17 | 2 | 32 |

* Living with at least one child under age 18.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Figure 2*

**NUMBER OF WOMEN AGES 25–34 IN EACH FAMILY STATUS FOR EVERY 100 MEN**




* Living with at least one child under age 18.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

and men's paid and unpaid work. The longer people remain single and without children, the fewer family responsibilities they have and the more time they have to get an advanced education and to devote to their careers. The data in Table 7 show that young women continue to be disadvantaged comparatively in terms of parenthood; they are more likely to raise children and are younger when they do so.

Table 7 gives us an idea of how two important domains of family—marriage and parenthood—have changed, but many people get married and don't have children and others have children without getting married. Table 8 shows how the combination of these two statuses has changed over the past three generations among women and men ages 25 to 34, the prime family-building stage. The category "single with children" refers to women and men who are not married (never married, separated, divorced, or married spouse absent) and who are living with a biological, step, or adopted child under age 18. The category includes women and men who are cohabiting with an unmarried partner who may or may not be the child's parent.

Both women and men in Generation X are less likely to be married with children, more likely to be single with children, and more likely to be single without children when compared with previous generations. The greatest changes were in the declines in the proportions married with children: from 55 percent for women and 49 percent for men among the early baby-boom cohort to 43 percent for women and 34 percent for men among Generation X. The proportions who are single people without children also changed dramatically, increasing from 18 percent for women and 32 percent for men in the early baby boom to 26 percent for women and 42 percent for men in Generation X.

How do women and men compare in these family statuses, and are they becoming more or less similar? Figure 2 shows generational differences in the number of women for every 100 men in a given family status. The closer the bars are to 100, the more similar women and men are in their family statuses. Not unexpectedly, more women than men are in the family statuses with children (bars above 100) and more men than women are in the family statuses without children (bars below 100). The gap in the proportions of women and men who are married with children has grown consistently over the past three generations. In the early baby boom there were 112 married women with children for every 100 men. In the late baby boom this number increased to 121 and in Generation X the number was 126. Women and men are the most dissimilar, however, when it comes to single parenting. Differences are less substantial in later cohorts because there was a dramatic increase in the number of single fathers, although even among Generation X relatively few men are in this family status. Whereas there

were 600 single mothers for every 100 single fathers in the early baby-boom cohort, the difference fell to 375 single mothers for every 100 single fathers in the late baby-boom generation and to 267 single mothers for every 100 single fathers in Generation X.

At each time point, men are more likely to be in the status with the fewest family responsibilities—single without children—than are women. In the early and late baby-boom cohorts, there were only 56 women for every 100 men in this category, compared with 62 women per 100 men in the Generation X cohort. Men are also more likely than women to be married with no children in each cohort. Thus, more young women than young men continue to occupy the most time-intensive family roles. While more Generation X than early baby-boom fathers are raising children in single-parent families, women are still more than 2.5 times more likely than men to be in the most time-poor family status.

When one considers all parenting combined—single and married—the gender *gap* in parenting responsibilities actually increased from the early baby-boom to the Generation X cohort. Women were about one-third more likely to be parents (married or single) than were men in the early baby-boom cohort, but this gap increased to 50 percent for the Generation X cohort.

*Table 9*
**PAID WORK FOR WOMEN AND MEN AGES 25–54 BY FAMILY STATUS, 2000**

| Paid work | Married with children* | Married without children | Single with children* | Single without children |
|---|---|---|---|---|
| **Worked for pay (%)** | | | | |
| Women | 75 | 81 | 83 | 84 |
| Men | 95 | 90 | 89 | 84 |
| Ratio women/men (per 100) | 79 | 90 | 93 | 100 |
| **Worked full-time/year-round (%)** | | | | |
| Women | 38 | 51 | 49 | 55 |
| Men | 77 | 68 | 62 | 56 |
| Ratio women/men (per 100) | 49 | 75 | 79 | 98 |
| **Average annual hours of work** | | | | |
| Women | 1,233 | 1,514 | 1,473 | 1,600 |
| Men | 2,156 | 1,941 | 1,818 | 1,677 |
| Women's hours as % of men's hours | 57 | 78 | 81 | 95 |

* Living with at least one child under age 18.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

## Paid and Unpaid Work

How do gender differences in family statuses affect paid and unpaid work among the working-age population? In 2000, women's and men's paid work were the most similar when they were single with no children (see Table 9). Single women and men without children were equally as likely to be employed in the previous year (84 percent) and to be working full-time/year-round (about 55 percent). They also had similar average annual hours of work (about 1,600). The greatest discrepancy in paid work is found between women and men who are married with children: Seventy-five percent of married mothers were employed last year, compared with 95 percent of married fathers; 38 percent of married mothers worked full-time/year-round, compared with 77 percent of married fathers; and married mothers worked only 57 percent of the average annual hours of married fathers.

Women and men who are married with no children are more equal in terms of work than their married counterparts who have children. But even though they don't have children, these married women are still much less likely to work full-time/year-round and work many fewer hours than married childless men. These findings indicate that marriage and parenthood augment the gender gap in paid work. Economist Claudia Goldin's longitudinal analysis of cohorts of college graduates indicates that, among women from the 1944–1957 birth cohort, fewer than one in five were able to combine full-time/year-round employment with marriage and motherhood continuously over their adult lives. About one-half of women with successful careers had forgone motherhood.[33] While our data are not longitudinal, they suggest that "having it all" continues to be an unattainable goal for many women. Balancing work and family often means making trade-offs such as withdrawing from paid work, shifting from full-time to part-time work, or scaling back career opportunities by switching to less-demanding jobs.[34]

Single mothers and single fathers are nearly as likely to have worked in the past year (83 percent for women and 89 percent for men). But only 79 single mothers for every 100 single fathers work full-time/year-round, and they work about 20 percent fewer hours than single fathers. Some readers may be surprised that single fathers work so many more hours than single mothers, but about 62 percent of single fathers are cohabiting, living with their parents, or living with other adults, compared with just 46 percent of single mothers.[35] More single fathers than single mothers have household members who provide child care and help with housework.

Gender differences in the trade-offs between time for childrearing and time for paid employment are evident in the reasons adults give for nonemployment. Data from the 1996 Survey of Income and Program Participation show that, among nonemployed women ages 25 to 44, taking care of children or adults was the main reason for not being employed. In contrast, men were more likely to cite long-term health problems and disability as reasons for not being employed. Only 2.6 per-

*Table 10*

**AVERAGE WEEKLY HOURS OF UNPAID WORK FOR WOMEN AND MEN AGES 25–54 BY FAMILY STATUS, 1999**

| Unpaid work | Married with children | Single without children |
|---|---|---|
| **All housework** | | |
| Women | 20.0 | 11.4 |
| Men | 11.2 | 8.1 |
| Ratio women's hours to men's hours | 1.8 | 1.4 |
| **Core housework*** | | |
| Women | 17.0 | 6.5 |
| Men | 6.5 | 4.0 |
| Ratio women's hours to men's hours | 2.6 | 1.6 |
| **Other housework**** | | |
| Women | 2.9 | 4.9 |
| Men | 4.7 | 4.1 |
| Ratio women's hours to men's hours | 0.6 | 1.2 |

* Core housework includes cooking, meal cleanup, housecleaning, laundry, and ironing.

** Other housework includes repairs, outdoor chores, gardening, animal care, and bill-paying.

Source: Authors' tabulations of the U.S. Time Use Study, 1999.

cent of men ages 25 to 64 gave taking care of children as the reason for their nonemployment.[36]

Does family status also affect unpaid work? Data limitations preclude us from examining all the groups we were able to examine for variations in paid labor using the census data. However, we can look at differences for married women and men with children (the family status with the most gender inequality in paid labor) and for single women and men without children (the family status with the most gender equality in paid labor), Table 10 shows that, in 1999, married women with children devoted nearly twice as many weekly hours to total housework as did single women without children (20.0 hours versus 11.4 hours). The increased demand for household labor that accompanies marriage and motherhood is evident in differences among women in core household tasks: Married mothers spend nearly triple the time that single women without children do cooking, cleaning, and doing laundry (17.0 hours versus 6.5 hours). However, husbands may relieve wives of some household chores, because single women without children spend more time on other household tasks than married women, including doing repairs, doing outdoor chores, gardening, taking care of pets, and paying the bills. Nonetheless, the time married fathers and single men without children devote to unpaid labor is much more similar than is the case for women. For example, married fathers spend 6.5 hours on core household tasks, compared with 4.0 hours for single men without children.

*Table 11*

**FULL-TIME/YEAR-ROUND PAID WORK FOR WOMEN AND MEN AGES 25–34, BY FAMILY STATUS AND COHORT**

| Cohort | Married with children* | Married without children | Single with children* | Single without children |
|---|---|---|---|---|
| **Women (%)** | | | | |
| 1966-1975 | | | | |
| Generation X | 33 | 56 | 44 | 55 |
| 1956-1965 | | | | |
| Late Baby Boom | 30 | 59 | 36 | 57 |
| 1946-1955 | | | | |
| Early Baby Boom | 20 | 51 | 36 | 53 |
| **Men (%)** | | | | |
| 1966-1975 | | | | |
| Generation X | 75 | 64 | 59 | 57 |
| 1956-1965 | | | | |
| Late Baby Boom | 75 | 69 | 53 | 54 |
| 1946-1955 | | | | |
| Early Baby Boom | 74 | 68 | 52 | 52 |
| **Ratio women/men (per 100)** | | | | |
| 1966-1975 | | | | |
| Generation X | 44 | 88 | 75 | 96 |
| 1956-1965 | | | | |
| Late Baby Boom | 40 | 86 | 68 | 106 |
| 1946-1955 | | | | |
| Early Baby Boom | 27 | 75 | 69 | 102 |

* Living with at least one child under age 18.

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

As was the case with paid work, single women and men without children are more similar in their unpaid work hour totals than are married mothers and fathers. Married mothers devote almost three times more hours to core household tasks than do married fathers. By contrast, single women without children spend only 60 percent more time on these tasks.

Table 11 shows generational changes in full-time/year-round employment for women and men ages 24 to 35, the ages at which most young adults are adopting family roles and establishing their careers. Full-time/year-round employment increased for married women with children in each successive generation, with the most dramatic increase occurring between the early and late baby boom. By contrast, married men with children did not make similar gains across generations. In fact, it is quite surprising that only 75 percent of men with wives and children work full-time/year-round. The gender gap in labor force attachment declined between married mothers and fathers across the generations because of the increase in married mothers' attachment to the labor force. The most progress in closing this gap was achieved between the early and late baby boom.

*Box 3*

## Single Mothers, Employment, and Welfare Reform

Historically, single mothers have been much more likely to be employed than married mothers. The gap between married and single mothers' employment rates narrowed during the 1980s; but in the 1990s, single mothers increased their employment faster than did married mothers. All groups of single mothers saw steep increases in employment rates during the 1990s (see figure). Employment shot up especially quickly for black and Latina single mothers, substantially narrowing what had been a persistent racial and ethnic employment gap.

There are two leading explanations for this phenomenon. On the one hand, welfare policy could have successfully driven single mothers into the labor force. On the other hand, it's possible that the booming economy of the late 1990s increased employment opportunities for single mothers. Although it's not yet possible to resolve this debate, we can shed some light on it.

Federal and state programs to aid low-income families were transformed during the 1990s, culminating in the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) at the federal level. This law replaced the Aid to Families with Dependent Children program, which had been a federal entitlement for poor families, with a program of block grants to the states called Temporary Assistance to Needy Families (TANF). The biggest effect of the change—and its principal aim—was to force single mothers into the labor force. Additionally, the expansion of the Earned Income Tax Credit (EITC) during the 1980s and 1990s also spurred poor women to enter paid employment. At the same time as welfare and tax policy was changing in the 1990s, the economy experienced a sustained recovery following the 1991 recession, with rapid job growth, falling unemployment rates, and job opportunities that reached uncommonly far down the socioeconomic ladder.

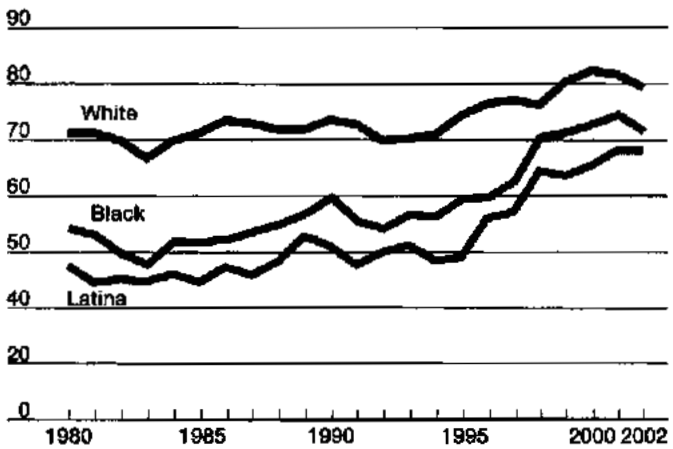
### Employment Among Single Mothers

Among those without college degrees, never-married mothers had steeper employment rate increases in the 1990s than married mothers: 15 percentage points (62 percent to 77 percent), compared with just a 1 percentage point increase for married mothers (72 percent to 73 percent). Employment also increased for single mothers who had finished college, but not nearly as steeply, and the difference in the increase between never-married mothers and married mothers was not as great. Thus, employment growth was the greatest among those who had been the least likely to be employed before: single mothers with less than a college degree.

The greater growth in employment among single mothers with less education could be evidence for either the welfare-reform or the good-economy explanation. But if the good economy were helping poor mothers in general get jobs, it is likely that the increase would have been similar for married and never-married mothers.

Looking at 1990 versus 2000 is slightly limiting, however, if what we are interested in varied across the decade, as was the case with both economic growth and welfare policy. We use annual data from the Current Population Survey (CPS), a large, nationally representative employment survey, to get a better idea of the timing of the *increase* in employment for single mothers.

**Single Mothers' Employment Rate by Race and Ethnicity, 1980–2002**




Note: Black and white categories do not include Latinas.

Source: Authors' tabulations of the March Current Population Surveys (women ages 25–54).

Major welfare reform was signed into law in 1996, and the time limits for welfare receipt that the new law imposed started to take effect in 1998. The figure above shows that the upward trend predates national welfare reform. In fact, the increase in single-mothers' employment began as soon as the 1990s recession ended, after 1992.

It is important to note, however, that welfare reform started at the state level, and a number of states were taking steps to move single mothers into the labor force even before the national program changed in 1996. So we cannot yet conclude welfare reform was not the driving force for single mothers' employment. We can learn a little more by looking at the effect of the 2001 recession. Both white and black single mothers saw decreases in employment again in 2002, for the first time since the end of the last recession. Clearly, economic conditions are an important factor in these trends.

Additionally, several analyses conducted by the Urban Institute, using their 1999 and 2002 National Survey of America's Families, have concluded that the economic recession hit single mothers hard, undermining the success of welfare reform in moving poor women into employment. The report shows that 50 percent of those leaving welfare from 1997 to 1999 reported working and not receiving TANF anymore in 1999. That number fell to 42 percent in the 2002 report, for those leaving welfare from 2000 to 2002. Hence, opportunity changes from the growth of the economy are probably more important than welfare policy in explaining these trends, although welfare reform and the expanded EITC undoubtedly contributed as well.

Single parents made little progress in improving their labor force attachment between the early and late baby-boom cohorts. Full-time/year-round work stayed steady across these generations for single mothers at 36 percent, while it increased slightly for single fathers from 52 percent to 53 percent. The interesting story for single parents is the large increase in full-time/year-round work that occurred between the late baby boom and Generation X for both women and men. Full-time/year-round employment increased from 36 percent to 44 percent among single mothers and from 53 percent to 59 percent for single fathers. This finding is all the more striking when one considers that this increase is the first change we have seen that was greater between the late baby boom and Generation X than between the early and late baby booms. Substantial gains were also made by Generation X in the percent of single mothers in the labor force and the number of hours they worked (data not shown). Welfare reform and the strong economic recovery of the 1990s had a hand in these increases (see Box 3).

The gender gap in full-time/year-round work among single parents decreased substantially between the late baby-boom and Generation X cohorts. In the late baby-boom cohort, 68 single mothers for every 100 single fathers worked full-time/year-round, whereas in the Generation X cohort, 75 single mothers for every 100 single fathers worked full-time/year-round.

In contrast to increases among women with children, full-time/year-round employment among women without children actually declined between late baby-boom and Generation X women. To our knowledge, this is the first evidence of a reversal in women's steady march toward increased full-time/year-round employment. However, more women in the Generation X cohort were enrolled in college compared with their counterparts in the late baby-boom cohort, and increasing enrollments could have depressed full-time/year-round employment, a topic we turn to in the next section.

Full-time/year-round employment also decreased substantially between the late baby-boom and Generation X cohorts for married men without children (from 69 percent to 64 percent) but not for single men without children. Greater decreases in full-time/year-round employment for men than for women who are married without children resulted in a slight narrowing of the gender gap in employment for this group. In the late baby-boom cohort, single women without children were actually more likely than their male counterparts to work full-time/year-round; but in Generation X, this pattern reversed, so that Generation X women were slightly less likely than men to be employed full-time/year-round. Nonetheless, the gender gap in full-time/year-round employment is still smaller among single women and men with no children than among women and men in other family statuses.

*Table 12*

**AVERAGE WEEKLY HOURS OF CORE HOUSEWORK FOR WOMEN AND MEN AGES 25–54 BY FAMILY STATUS, 1975–1999**

| Family status | 1975 | 1985 | 1999 |
|---|---|---|---|
| **Married with children** | | | |
| Women | 23.6 | 19.0 | 17.0 |
| Men | 1.1 | 4.1 | 6.5 |
| Ratio women's hours to men's hours | 21.5 | 4.6 | 2.6 |
| **Single without children** | | | |
| Women | 10.7 | 9.8 | 6.5 |
| Men | 3.1 | 3.8 | 4.0 |
| Ratio women's hours to men's hours | 3.5 | 2.6 | 1.6 |

Note: Core housework includes cooking, meal cleanup, housecleaning, laundry, and ironing.

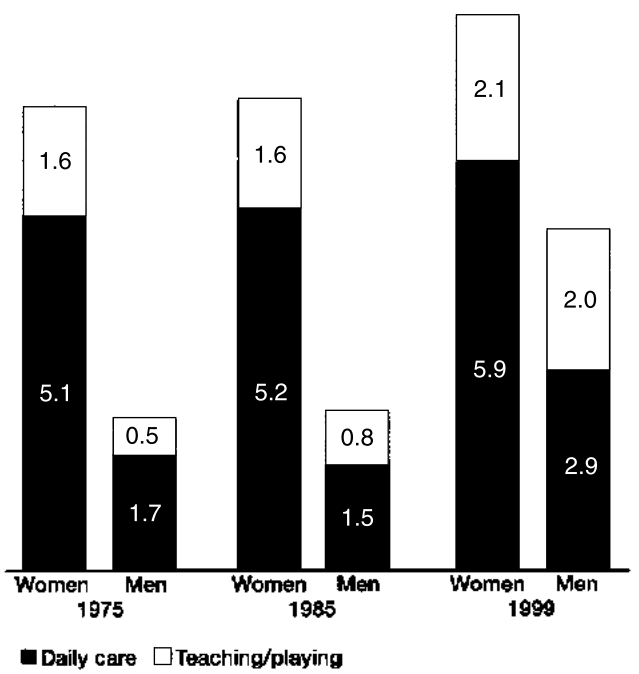
Source: Authors' tabulations of the U.S. Time Use Studies, 1975, 1985, and 1999.

In sum, with the exception of single women and men with no children, the gender gap in full-time/year-round employment continues to close, albeit at a much reduced pace. But what about unpaid labor? Have married women and men with children made progress in this domain as well? The relatively small sample size of the time diary data does not allow us to investigate change in unpaid labor by family status for those ages 25 to 34, but we are able to investigate these trends for all age groups (ages 25 to 54). The data in Table 12 show that the answer to this question is a resounding yes. Married women with children have decreased the time they devote to cooking, cleaning, and doing laundry, while married men with children have increased the time they spend in these tasks. Thus, whereas in 1975 married mothers were doing more than 21 times as much core housework as married fathers, by 1999 married mothers were doing only 2.6 times as much.

Married mothers continue to do more absolute child care compared with fathers, but gender differences have diminished here too, as shown in Figure 3 (page 95). Married mothers did three times more child care in 1975 compared with married fathers, but by 1999 they were doing only about 1.6 times as much. This is not because mothers decreased the amount of time they were spending in child care but rather because married fathers increased their time with children more than married mothers did. Married mothers' child-care time increased more than one hour between 1975 and 1999, whereas married fathers' child-care time increased almost three hours over the same period. Married dads are also spending more time in routine child-care activities, suggesting that fathers are getting more involved in their children's day-to-day care. Still, mothers continue to do more of the day-to-day care of children.

*Figure 3*

**CHANGES IN MARRIED MOTHERS' AND MARRIED FATHERS' WEEKLY HOURS OF CHILD CARE, 1975–1999**




Source: Authors' tabulations of the U.S. Time Use Studies, 1975, 1985, and 1999.

Gender differences in unpaid work have also diminished for single women and men without children (see Table 12, page 94). Single men have increased the time they spend cooking, cleaning, and doing laundry, and single women have decreased their time on these tasks. Most of the decline for single women without children occurred between 1985 and 1999; most of the increases made by men occurred between 1975 and 1985. The combination of these trends resulted in a steady reduction of the gender gap in housework among single women and men.

In sum, women and men's unpaid work is more similar across family statuses today than in the mid-1970s. Nevertheless, single women and men without children are more equal in terms of time in unpaid work than are married women and men with children.

These results parallel those shown for paid work. Single women without children have been able to close the employment gap with men, but married women with children are still employed at lower rates and work fewer hours compared with married men with children. Women's greater responsibility for unpaid work likely underlies continuing gender differences in paid work. And women's and men's time in housework and child care remains far from equal.

# EDUCATIONAL ATTAINMENT

Two of the theories introduced earlier to explain women's and men's allocation to paid and unpaid work emphasize differences in human capital. Human capital includes the set of skills and experiences employees bring to the job. One component of human capital is educational attainment. Women and men with diplomas and degrees are more attractive to employers, tend to get the best jobs when they leave school, and are better protected against unemployment during tough economic times than are their less-educated counterparts.

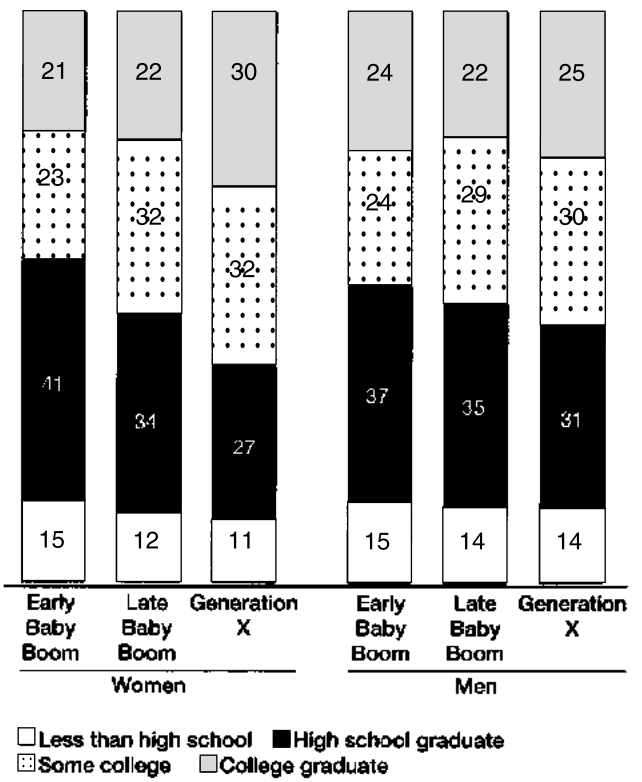
Like changes in the family, the institution of higher education was transformed by changes in society and the economy. Prior to the 1970s, opportunities to attend college were more common for men than for women. The gender gap in educational attainment reached its peak in the parents of the baby-boom generation, when many women married early and stayed home to raise their children while their husbands went to college under the G.I. Bill. Gender differences in educational attainment diminished with passage of Title IX of the Education Amendments of 1972, which opened the doors to institutions of higher learning for women by prohibiting sex discrimination in all public and private schools receiving federal funding. This legislation was passed at about the same time that reproductive rights were being bolstered by increased access to the birth control pill and the legalization of abortion. During this time, shifts in the economy translated into an increased demand for educated workers, giving women an alternative to early marriage and motherhood: the pursuit of higher education and the attendant qualifications to land a good job.

Figure 4 shows that women have benefited from these societal changes, having improved their level of education in each successive cohort. Generation X women are much more likely to have college degrees and much less likely to have only a high school degree or less when compared with their counterparts in the early and late baby-boom cohorts. Late baby-boom women made some inroads into college compared with early baby-boom women, but they did not seem to be able to translate their increased college attendance into a degree. The change in the proportion of women who were college graduates did not actually occur until Generation X, when a record 30 percent were college graduates, compared with only 22 percent of late baby-boom women.

By contrast, men did not vastly improve their educational attainment from generation to generation. The most noteworthy change for men occurred with the increase in the proportion with some college. But most of this change occurred between the early and late baby-boom cohorts. The proportion of men who were college graduates increased slightly between the late baby-boom and Generation X cohorts, but because there was a

*Figure 4*

**CHANGES IN EDUCATION LEVELS FOR WOMEN AND MEN AGES 25–29, BY COHORT**




Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

decline in this proportion between the early and late baby-boom cohorts, the net improvement over three generations was only 1 percentage point. Improvements in the educational attainment of women and the relative stability in men's educational attainment across generations means that Generation X women have achieved something no other generation before them has: A greater proportion of women than men have college degrees (30 percent and 25 percent, respectively).

Even though women have made phenomenal progress with regard to education, men continue to have higher employment rates and spend more time working for pay than women, even within education levels (see Table 13). Women and men with at least some college tend to be more equal in terms of paid work than their less-educated counterparts. For example, in 2000, there were 91 female college graduates in the labor force for every 100 male college graduates, and these women worked 73 hours for every 100 hours worked by men. In stark contrast, among those with less than a high school education in 2000, 71 women worked per 100 men, and these women worked only 58 hours for every 100 hours worked by men. In general, as educational attainment increases, paid work and the amount of time worked also increases for both women and men. Why might women and men with more education spend more time in paid work compared with those with less education? More highly educated women and men may have more interesting or enjoyable careers than the often tedious work in jobs held by less-educated individuals. In addition, occupations requiring more education, such as scientist, professor, or physician, are more often full-time jobs compared with those requiring little education that are typically part-time, such as salesperson or fast-food cook. It is also possible that changes in the economic environment have intensified the time demands required in white-collar jobs. Downsizing of middle management along with shifts of some tasks formerly handled by administrative staff (such as professionals preparing their own documents on computers) has meant more work spread among fewer people.

*Table 13*

**PAID WORK FOR WOMEN AND MEN AGES 25–54 BY EDUCATION LEVEL, 2000**

| Paid work | Less than high school | High school graduate | Some college | College graduate |
|---|---|---|---|---|
| **Worked for pay (%)** | | | | |
| Women | 55 | 75 | 84 | 87 |
| Men | 77 | 88 | 93 | 96 |
| Ratio women/men (per 100) | 71 | 85 | 90 | 91 |
| **Worked full-time/year-round (%)** | | | | |
| Women | 24 | 43 | 51 | 50 |
| Men | 44 | 65 | 73 | 77 |
| Ratio women/men (per 100) | 55 | 66 | 70 | 65 |
| **Average annual hours of work** | | | | |
| Women | 852 | 1,294 | 1,490 | 1,607 |
| Men | 1,473 | 1,855 | 2,033 | 2,191 |
| Women's hours as % of men's hours | 58 | 70 | 73 | 73 |

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Despite gains in higher education among women, men are still more likely to be engaged in paid work and tend to work more hours at all educational levels. Is the same true for unpaid labor? Do women spend more time in unpaid work than men regardless of education level, and are women and men more equal at higher levels of education? When one considers all housework, women do spend more hours engaged in this type of work than men in both education categories (see Table 14, page 97). But men and women with a high school degree or less appear to be more equal than their more

*Table 14*

**AVERAGE WEEKLY HOURS OF UNPAID WORK FOR WOMEN AND MEN AGES 25–54 BY EDUCATION, 1999**

| Unpaid work | High school or less | More than high school |
|---|---|---|
| **All housework** | | |
| Women | 18.5 | 15.4 |
| Men | 13.7 | 9.4 |
| Ratio women's hours to men's hours | 1.4 | 1.6 |
| **Core housework*** | | |
| Women | 14.4 | 12.1 |
| Men | 6.1 | 5.5 |
| Ratio women's hours to men's hours | 2.4 | 2.2 |
| **Other housework**** | | |
| Women | 4.0 | 3.3 |
| Men | 7.6 | 3.9 |
| Ratio women's hours to men's hours | 0.5 | 0.8 |

* Core housework includes cooking, meal cleanup, housecleaning, laundry, and ironing.

** Other housework includes repairs, outdoor chores, gardening, animal care, and bill-paying.

Source: Authors' tabulations of the U.S. Time Diary Study, 1999.

*Table 15*

**FULL-TIME/YEAR-ROUND WORK FOR WOMEN AND MEN AGES 25–34 BY EDUCATION AND COHORT**

| Cohort | Less than high school | High school graduate | Some college | College graduate |
|---|---|---|---|---|
| **Women (%)** | | | | |
| 1966–1975 | | | | |
| Generation X | 21 | 39 | 48 | 53 |
| 1956–1965 | | | | |
| Late Baby Boom | 20 | 38 | 46 | 51 |
| 1946–1955 | | | | |
| Early Baby Boom | 19 | 33 | 37 | 36 |
| **Men (%)** | | | | |
| 1966–1975 | | | | |
| Generation X | 43 | 62 | 70 | 73 |
| 1956–1965 | | | | |
| Late Baby Boom | 42 | 64 | 69 | 74 |
| 1946–1955 | | | | |
| Early Baby Boom | 49 | 67 | 69 | 71 |
| **Ratio women/men (per 100)** | | | | |
| 1966–1975 | | | | |
| Generation X | 49 | 63 | 69 | 73 |
| 1956–1965 | | | | |
| Late Baby Boom | 48 | 59 | 67 | 69 |
| 1946–1955 | | | | |
| Early Baby Boom | 39 | 49 | 54 | 51 |

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

highly educated counterparts. A closer examination of the data, however, indicates that most of this difference is because among those with a high school degree or less, men spend much more time than women doing other housework, while women and men with at least a high school degree spend more similar numbers of hours on these tasks. Women and men with a high school degree or less also spend more time on core housework compared with women and men with more education. More highly educated people generally have higher incomes than those of more modest educational attainment and may purchase household services such as prepared food and lawn care. Less-educated women and men spend fewer hours in paid work compared with the more highly educated, so they may have more time to spend in unpaid work and less discretionary income to purchase outside help.

Recall that many social and economic changes over the past several decades altered the context in which women and men obtain their educations and enter the labor force. Many of these changes, such as the postponement of marriage and childbearing and the softening of norms against women in the labor force, have favored women's educational advancement. Changes in the economy have shifted jobs from manufacturing toward service, and these changes have favored women's employment. Table 15 shows that women's full-time/year-round employment increased for each successive cohort, but increases were negligible among women with less than a high school education compared with women with more education. For men the story is quite different. The proportion of men with full-time/year-round employment remained relatively stable across cohorts for those with at least some college, whereas full-time/year-round employment actually decreased substantially for men with a high school degree or less, most likely due to the decline in manufacturing jobs.

Due mainly to men's stagnating or worsening labor force attachment and to the increasing labor force attachment for those women with at least a high school degree, the gap in full-time/year-round employment within each educational category closed substantially. For example, among those with less than a high school education in the early baby-boom cohort, there were 39 women for every 100 men who worked full-time/year-round, but by Generation X this number had increased to 49 women per 100 men. Among those with a college degree, there were 51 women for every 100 men working full-time/year-round in the early baby-boom generation, compared with 73 women per 100 men among Generation X. The most progress in closing the gender gap occurred between the early and late baby-boom cohorts.

*Table 16*

**AVERAGE WEEKLY HOURS OF CORE HOUSEWORK FOR WOMEN AND MEN AGES 25–54 BY EDUCATION, 1975–1999**

| Education | 1975 | 1985 | 1999 |
|---|---|---|---|
| **High school or less** | | | |
| Women | 22.0 | 17.2 | 14.4 |
| Men | 2.1 | 3.4 | 6.1 |
| Ratio of women's hours to men's hours | 10.5 | 5.1 | 2.4 |
| **More than high school** | | | |
| Women | 17.7 | 13.9 | 12.1 |
| Men | 1.3 | 4.1 | 5.5 |
| Ratio of women's hours to men's hours | 13.6 | 3.4 | 2.2 |

Note: Core housework includes cooking, meal cleanup, housecleaning, laundry, and ironing.

Source: Authors' tabulations of the U.S. Time Use Studies, 1975, 1985, and 1999.

Has progress been made in closing the gap in unpaid work as well among women and men with differing amounts of education? The answer seems to be yes. In 1975, among those with a high school education or less, women spent about 10 hours for every hour men spent cooking, doing dishes, cleaning house, and doing the laundry (see Table 16). By 1985, this differential was narrowed to five hours; and by 1999, women spent a little more than two hours doing these tasks for every hour men spent doing them. In 1975, for those with more than a high school degree, the gap in housework between women and men was greater than it was for less-educated women and men. Women with more than a high school education spent almost 14 hours on these tasks for every hour men spent on them. But by 1985, the difference in the time men and women spent in housework was smaller among those with more than a high school education than among those with a high school degree or less.

Educational attainment is tied to family status and norms about the appropriate roles for men and women. We now turn to examining whether compositional shifts or behavioral modifications are accounting for changes in women's and men's work, and the slowing of these changes in the most recent cohort.

## ACCOUNTING FOR TRENDS IN PAID AND UNPAID WORK

How women and men divide their time between paid and unpaid work changes over time, both because the demographic characteristics of people change (compositional shifts) and because people modify their behavior. As we have described, women and men in more recent generations are better educated and are delaying entry into marriage and parenthood well into their 30s. Generation X women and men are both more likely to be single without children and single with children compared with earlier generations. But how do all these changes affect the paid and unpaid work of women and men?

In this section we first discuss how population changes in family status and education should affect paid and unpaid work. We then explore how shifting behaviors shape changes in paid and unpaid work. Finally, we examine the roles that changing behavior and changes in the composition of family status and education play in explaining shifts in paid and unpaid work.

Higher levels of educational attainment likely account for some of the increase in women's paid work hours as well as changes in time allocated by women to child care and housework. Shifts in the economy from manufacturing toward services translate into increased demand for workers with higher levels of education. More highly educated people are more likely to be employed and to work more hours than those with less education. Women's increasing education levels have no doubt played a role in boosting their employment and labor force attachment. Better-educated parents spend more time with children than less-educated parents spend. Thus, increases in women's education have helped them preserve time with children. Some research suggests that college-educated men do more housework compared with men without college degrees, whereas college-educated women do less housework compared with women with less education. Thus, women's gains in education have likely reduced the time women spend doing housework.

Also, college-educated women and men generally have more egalitarian attitudes about gender roles. For example, they believe that paid and unpaid work should be shared equally. The increase in women's education over time has likely augmented the number of women who favor more egalitarian gender roles and thus has acted to further spur the growth in women's employment. Because men's education has not changed appreciably since the early baby boom, it should not affect men's paid and unpaid work.

If education were all that mattered for explaining change in paid and unpaid work, women's continued improvement in education and men's lack of improvement should have substantially decreased the gender gap from the early baby boom through Generation X. But progress toward closing the gender gap in both paid and unpaid labor has slowed to a crawl since the late baby boom, and yet family status has changed over this period as well. Can changes in the composition of family status help explain this apparent anomaly?

For women, marriage and parenthood increase unpaid work and decrease paid work. More men and women are single without children and single with chil-

dren than in the past. The increase in singles without children should boost employment and labor force attachment and dampen time spent in unpaid work for women and men because the people in this status do not have the family responsibilities that require more unpaid work. By contrast, the increase in single parents should dampen labor force attachment and unpaid work for both women and men because people in this family status have to do both types of work themselves. This dampening should be stronger for women than for men, who are more likely to have live-in help from a cohabiting partner or other relatives. Thus we have two trends in family status that have counterbalancing effects on paid and unpaid work. If one examines the statuses of marriage and parenthood, however, the gap between men and women has actually increased from the early baby boom to Generation X, so that over time women are increasing their family responsibilities vis-à-vis men. If family status were all that mattered, women should be losing ground to men in both work spheres.

Because young women and men are delaying parenting until older ages, family size has decreased and parents are older. Having fewer children in the home decreases housework and child-care time.[37] However, older parents are more likely to have chosen to become parents rather than to have become parents through an unintended pregnancy, and they might want to spend more time in child care and the household labor that goes along with children. Older parents will typically also have more competing demands on their time, especially from paid work. As a result, population changes in family size should act to decrease unpaid work and increase paid work among both women and men, whereas changes in the age of parents should work to increase both.

The increase in women's employment should also account for some of the change in housework and child care, because the more hours women spend doing paid work, the fewer they have to devote to unpaid work in the home. In fact, studies show that employed women do less housework and child care compared with women who do not work for pay.[38] In contrast, men's employment has little or no association with time in housework and child care.

Changes in women's and men's allocation of time to paid and unpaid work also reflect behavioral shifts associated with the cultural and social transformations discussed in previous sections. For example, attitudes about women's involvement in paid work have become increasingly liberal, and norms about the appropriateness of women attending college have changed. Changes in the social acceptance of women working and going to college have allowed more women to change their behaviors, increasing employment and college attendance. Housekeeping standards are also more relaxed than in the past, and convenience products such as take-out meals are more common. These changes have allowed women to decrease the amount of time they spend on housework. It has also become more socially acceptable for men to cook, clean, and take care of their children. By contrast, however, parenting practices have become more time-intensive as mothers and fathers are expected to devote most nonemployment hours to their children. Changes in parenting norms mean that parents have increased the time they spend with children.

Up until this point, we have addressed how women's and men's paid and unpaid work time have changed in relation to changes in a single demographic characteristic. Yet these characteristics tend to be grouped. For example, single mothers tend to be younger and have less education compared with married mothers. What our earlier discussion could not tell us is how changes in family status and human capital *combined* have affected changes in women's and men's paid and unpaid work, and to what extent these changes are due to the changing family status and human capital characteristics of the population versus shifts in men's and women's behaviors. For this information, we adjust paid and unpaid work hours to account for the combined effect of changes in women's and men's human capital characteristics (employment, education, and age), family status characteristics (marital and parental status), and alterations in their behavior. We then separate the change in these paid and unpaid work hours into that part due to shifts over time in the characteristics of people and that part due to changes over time in how people behave.[39]

Table 17 shows adjusted annual hours of paid work for women and men in 1980 and 2000, and the difference in adjusted annual hours between 1980 and 2000. We calculated the adjusted annual hours under the assumption that all women (men) have the family status and human capital characteristics of the average woman (man) in 1980 and in 2000. We can then partition the difference in the adjusted annual hours between 1980 and 2000 into two components: the portion that is the result of shifts in women's and men's characteristics and the portion due to shifts in behavior. This partitioning allows us to determine whether the inclination of women and men to spend time in paid work changed between 1980 and 2000, or whether the observed difference in annual hours of paid work reflects merely a change in the structure of the population, such as how many women and men are married, have children, and have a college education.

The results indicate that, between 1980 and 2000, behavioral modifications and shifting demographic characteristics worked to increase women's annual employment hours. Nonetheless, the effect of behavior was a bit stronger. Changes in characteristics account for 47 percent (241 hours) and changes in behavior account for 53 percent (268 hours) of the 509-hour increase in annual paid work time. Women spent more time in paid work in 2000 than in 1980 because fewer of them are married, are par-

*Table 17*

**PORTION OF CHANGE IN ADJUSTED ANNUAL HOURS OF PAID WORK ATTRIBUTABLE TO BEHAVIORAL AND COMPOSITIONAL FACTORS, 1980 AND 2000**

| Adjusted annual hours of paid work | Women | Men |
|---|---|---|
| 2000 | 1,282 | 1,959 |
| 1980 | 773 | 1,954 |
| Difference 2000-1980 adjusted annual hours | 509 | 5 |
| Change due to shifts in characteristics | 241 | 44 |
| Change due to shifts in behavior | 268 | -39 |

Source: Authors' tabulations using the Integrated Public Use Microdata Series (IPUMS), 2003.

ents, and have less than a college education, and because they are more likely to want to spend time in paid work.

For men, changes in demographic characteristics and shifts in behavior contributed about equally to the small change in annual employment hours. However, changes in characteristics and behavior worked in opposite directions: If men in 2000 had similar levels of education, marriage, and parenthood as did men in 1980, annual employment would have increased by 44 hours. But shifts in men's behavior also occurred, pulling annual employment down by 39 hours and resulting in only a five-hour increase over the period. Hence, changes in women's behavior and characteristics both worked to increase their annual employment hours, whereas men's behavior has counteracted compositional shifts that alone would have increased paid work time. Overwhelming majorities of young men today state that they desire jobs that will allow them to spend time with their families. The results of the decomposition suggest that men have changed their behavior to ratchet down paid work time, possibly because they are spending more time in unpaid work and possibly because of the scarcity of good jobs. But do we find similar patterns for unpaid work time? Are changes in unpaid work due to shifts in the propensity of women and men to spend time in housework and child care, or are the observed changes merely the result of shifts in women's and men's characteristics?

Table 18 shows change in adjusted weekly hours of housework between 1975 and 1999 (Panel A) and child care between 1975 and 1999 (Panel B). The results in Panel A indicate that, for men, almost all of the five-hour-per-week increase in housework time between 1975 and 1999 is related to behavioral change rather than changes in characteristics. Men's inclinations to cook, clean, and do laundry have increased since 1975. In contrast, if behavior had not changed, and men in 1999 were just like men in 1975, housework time would have declined by about 18 minutes.

*Table 18*

**PORTION OF CHANGE IN ADJUSTED WEEKLY HOURS OF HOUSEWORK AND CHILD CARE ATTRIBUTABLE TO BEHAVIORAL AND COMPOSITIONAL FACTORS, 1975 AND 1999**

| Panel A: Adjusted weekly hours of housework | Women | Men |
|---|---|---|
| 1999 | 21.2 | 17.0 |
| 1975 | 25.2 | 12.2 |
| Difference 1999-1975 adjusted weekly hours | -3.9 | 4.8 |
| Change due to shifts in characteristics | -1.9 | -0.3 |
| Change due to shifts in behavior | -2.0 | 5.1 |

| Panel B: Adjusted weekly hours of child care | Mothers | Fathers |
|---|---|---|
| 1999 | 16.0 | 14.2 |
| 1975 | 11.7 | 7.8 |
| Difference 1999-1975 adjusted weekly hours | 4.4 | 6.4 |
| Change due to shifts in characteristics | -0.9 | 0.5 |
| Change due to shifts in behavior | 5.3 | 5.9 |

Source: Authors' tabulations of the U.S. Time Use Studies, 1975 and 1999.

For women, behavioral change and compositional shifts both contributed to the almost four-hour decline in housework between 1975 and 1999. About 49 percent of the decline is due to the larger proportion of women who are employed and college-educated and the smaller proportion who are married with children. For example, if women in 1999 were just like women in 1975—with the same lower rates of labor force participation and higher rates of marriage—the decline would have been 1.9 hours per week, not 3.9 hours. Because women's behavior also changed over the period, however, housework declined an additional two hours. Women have simply become less likely to want to spend time doing housework.

Some sociologists argue that women's housework can decline only to a certain point, because doing unpaid work is still considered part and parcel of being a good wife and mother.[40] Our results indicate that the activities in which women's housework have declined are the easiest to outsource entirely or piecemeal, suggesting that we may have reached the limits of behavioral change. For example, many services such as banking or ordering groceries can now be done online. Modern appliances, plus the inclination to "eat out," do appear to play a part in the reduction of women's housework time in the United States.[41] Consequently, women's housework time may have declined in some activities while their production of household goods has remained at "acceptable" levels.

It is also likely that what constitutes an "acceptable" level of housework has changed, as some research indi-

cates that standards of housekeeping have fallen since the mid-1970s.[42] The use of cleaning products for more discretionary tasks such as cleaning the oven and shampooing carpets dropped sharply between 1986 and 1996.[43] Given the increased hours women spend working for pay, it is entirely possible that women are simply doing the bare minimum amount of housework. If this were the case, a further reduction in women's hours spent in housework would not be possible even with these technological advancements and the ability to purchase substitute goods and services.

What about mothers' and fathers' child-care time? Conventional wisdom has held that changes in the family have necessarily reduced parents' time with children. Results in Panel B of Table 18 indicate, however, that mothers and fathers have changed their behavior more than enough to make up for changes in the family that alone would have decreased time with children.

Between 1975 and 1999, predicted weekly hours of child care increased 4.4 hours for mothers and 6.4 hours for fathers. If mothers in 1999 had the same demographic characteristics as mothers in 1975, compositional differences alone would have *decreased* child-care time by almost one hour, with most of the decline due to increases in maternal employment (results not shown). However, negative compositional changes were more than outweighed by behavioral shifts that worked to increase mothers' time in child care by 5.3 hours per week. For fathers, compositional and behavioral shifts both contribute to the 6.4-hour increase in child-care time between 1975 and 1999, but the relative contribution of behavior is much greater. Increases in married fathers' propensity to spend time caring for children explain 92 percent (or 5.9 hours) of the change. In contrast, shifts in demographic characteristics account for only 8 percent of the increase in fathers' child-care time (or about 30 minutes per week), with most of this attributable to increased levels of paternal education (results not shown).

Behavioral changes among mothers and fathers likely stem from the increasingly voluntary nature of parenthood, burgeoning parental concern over the safety of children, and pervasive changes in the cultural context of parenthood.[44] The widespread availability of contraceptives and lessened normative pressure to become a parent suggest that women and men who decide to become parents may increasingly be selected from those who have greater motivation and desire to invest heavily in children. The erosion of community bonds within neighborhoods and heightened parental fears about children's safety appear to have increased the level of parental supervision of children's activities. Changes in the cultural context of parenting and childhood have also driven up the amount of parental time necessary to produce a "good" childhood.[45]

The results in Tables 17 and 18 suggest that, although shifts in characteristics and behavior both play a part in explaining changes in paid and unpaid work, behavioral alterations account for a larger share of change. But what about change over the past decade? Results from the same type of analysis (not shown) indicate that behavioral change in the realms of paid work and housework has slowed to a crawl. Only about one-quarter of the changes in women's paid work and housework hours over the 1990s is attributable to behavioral shifts. Additionally, the small uptick in men's housework over the past decade occurred because men's characteristics changed, not because of further behavioral modification. In contrast, though, behavioral shifts of mothers and fathers continued to drive child-care hours up in the 1990s, similar to the story of change in the 1980s. The declining importance of behavioral modifications in explaining change in paid work and housework hours suggests that women and men have reached a limit in the extent to which they can rearrange their lives to accommodate both paid and unpaid work.

## Progress Made, Gaps Remain

At the beginning of this report, we wondered whether the slowing pace of family change portended a plateau in the steady movement toward greater gender similarity in employment and household work that occurred between 1960 and 1990. Our findings suggest that sweeping changes in women's paid and unpaid work have slowed to a crawl. And while the transformation of men's household work was not as dramatic as women's paid-work transformations, here too change has slowed.

We find that gender differences in all measures of paid work—employment in the previous year, full-time/year-round employment, and annual employment hours—narrowed more sharply in the 1980s than in the 1990s. Additionally, Generation X women do not appear to have increased their labor force attachment appreciably over that of late baby-boom women, in sharp contrast to the substantial increases evident between early baby-boom women and late baby-boom women.

The plateau in paid work appears to be interrelated with a slowdown in gender equality in unpaid work as well. The steady decline in housework has stalled among young women: Generation X women are doing about the same amount of housework as their late baby-boom counterparts. Among all women, declines in housework are smaller after 1975 than they were from 1965 to 1975. In each successive cohort, men are doing more housework, but the relative increase was less for the Generation X cohort compared with previous cohorts. Fathers increased child-care time substantially between 1985 and 1999; however, mothers also

increased their child-care time, so a large gender gap in parental child-care time remains.

Although to a lesser degree than in 1970, marriage and parenthood continue to differentiate women's and men's paid and unpaid work time. Paid and unpaid work time allocations are most similar among single women and men without children and most dissimilar among married mothers and fathers. Among young adults, more women and men in Generation X are single with no children than in the early and late baby-boom cohorts. However, the gender gap in marriage and parenthood has increased over time, so that Generation X women have even more family responsibilities than their male counterparts when compared with early baby-boom women and men.

Finally, education levels for women skyrocketed between the early baby-boom and Generation X cohorts. Women in Generation X did something no other cohort before them has: More women than men in this cohort have college degrees.

All of these population changes have affected the shifts we documented in women's and men's paid and unpaid work. But work and family change between the late baby-boom and Generation X cohorts was incremental, in sharp contrast to the more sweeping change that took place between the early baby-boom and late baby-boom cohorts. Women have altered their behavior so they spend more time in paid work and child care and less time in housework. Men have changed too, making behavioral modifications to decrease time in paid work and increase time in housework and child care. Nonetheless, our analysis indicates that, with the exception of child care, behavior appears to have changed little between 1990 and 2000—most change occurred between 1980 and 1990. In fact, the relatively small population shifts away from being married with children toward being single with no children and increased education explain the vast majority of the small gain in women's labor force attachment in the past decade. And increased labor force participation in conjunction with these trends explains about three-quarters of the small decline in housework for women over the same period. For men, shifts away from being married with children toward being single explain the vast majority of the small increase in their housework over the past decade.

The timing of change for men in the domestic sphere is more recent than that for women. Change in men's involvement in the home may be slowing but does not show quite the "stall" that characterizes women's market work trends. The data presented in this report suggest that women changed first. They increased their paid work and decreased their housework as much as they could. But women may have reached a limit on the amount of domestic work that they can shed and still maintain a comfortable life at home. Similarly, mothers made adjustments to include more market work in their lives, but also may have reached a limit on how much paid work they can add and still care for their children—unless they want to dramatically sacrifice time with children either by not having children in the first place or spending little time with them; or, for single mothers, by granting physical custody to the nonresidential father. Hence, women's market participation has stalled far short of full market equality with men. Unless conditions change—such as less maternal value being placed on time with children, fewer women having sole responsibility for raising children, men helping more, or policies making it easier to combine both childrearing and market work—the trend toward greater gender similarity in market work may have reached a new "equilibrium" in the United States. There is considerably less gender specialization in the home and the market than there was in the 1950s, but mothers continue to concentrate more on family care whereas fathers continue to concentrate more on breadwinning. What implications does this have for reaching gender equality?

Two models of gender equality, or "nirvanas," have been proposed in the feminist economic literature.[46] The first model has three characteristics: men's and women's full-time labor force participation rates are equivalent; societal tax systems are not structured to encourage women to specialize in household labor; and housework and child care are performed efficiently through public-sector or private-sector provision. The second model has two characteristics: men increase their time in household labor and decrease their time in paid employment, and public policies encourage and reward shared paid and unpaid work between women and men.

Under both models, women's and men's time use will become more similar, but for different reasons. In the first model, women reallocate their time away from unpaid work to paid work, and their time use becomes more like men's. In contrast, in the second model men reallocate their time away from paid work to unpaid work and their time use becomes more like women's.

Convergence due to men's time use becoming more similar to women's time use is more likely to result in gender equality. Women and men do not want to purchase all household goods and services from the market, because "family work" such as cooking meals, doing chores around the house, and caring for children helps reinforce family relationships.[47] If men do not continue to increase their time in unpaid work, women will continue to do more than their fair share. And if women continue to be responsible for housework and child care, their paid work time will continue to be less than men's and they will continue to be at a financial disadvantage. Men will also continue to be emotionally deprived of the benefits women experience from their participation in caring for families, friends, and community.

But there are problems with this solution. First, husbands and fathers face long work weeks already. Certainly

among married couples, while fathers are not doing half of the work in the home, they work many hours in the market, such that their total workloads look very similar to those of mothers.[48] Married fathers express even greater feelings of inadequate time with their children than do mothers in the United States, largely because work hours are so long.[49] How much ability men have to curtail those long work hours is not clear, but one suspects this curtailment is unlikely to happen in an economy where job tenure is uncertain and interesting and well-remunerated work often comes with the price of long hours. Fathers still feel strong pressure to provide adequately for their families, and couples manage work and family demands with one partner, usually the mother, scaling back market work hours, thereby placing greater pressure on the other partner to work long hours. Married couples also generally need to have at least one spouse in a full-time/year-round job because these jobs have higher wages and usually offer health insurance. Because husbands continue to earn more than wives, most couples make the rational choice that husbands will work full time and wives part-time. In the absence of constraints, both spouses might choose to work fewer paid work hours. But this choice is not available for most people. Even Robert Reich and Penny Hughes, arguably valuable employees whom employers should have wanted to retain, were not able to change their paid work situation enough so that they could better balance work and family.

Second, as a nation we have fairly high expectations for consumption, and scaling back work hours has implications for our ability to realize those expectations. Owning a home is highly valued. Having many cars is common in families for the commute to work and other activities. As more adults work outside the home, more market substitutes for work in the home are needed, desired, and afforded. For parents, an important aspect of rising expectations is greater emphasis on the need for children to attend and complete postsecondary education and for parents to finance that education. Public education is universally provided in the United States through secondary school but not thereafter. Even a college education at a public institution in the United States is an expensive proposition, so parental investment in their children's education promotes market work. Hence, men's and women's paid and unpaid work time has become more similar, but the social policies designed to facilitate and encourage a more equitable division of labor are lacking. The United States appears to have merged elements from both nirvanas, leaving American men and women and their families in a decidedly less-than-utopian state.

Government policies allowing for more successful integration of work and family lives are few and far between in this country, and the laws governing workplace schedules are woefully outdated and have not evolved with the changing workforce and economy. However, *Working Mothers* list of the "100 Best Companies for Working Mothers" has spotlighted some of the most innovative corporate practices and programs that improve their workers' work and family lives. The list was introduced in 1986 and has spawned intense competition among CEOs to implement change in their workplaces so that their companies will make the list and become employers of choice for working mothers. These companies have made many changes. For example, they have added child-care programs and child-care referral services. But most of these companies are large, and they employ only about 2 percent of all employees.

It is doubtful that more progress will be made to close the gender gap in paid and unpaid work unless more widespread work-family policies are adopted. However, Americans have been very resistant to the high taxes that fund generous family-friendly policies. For public or private provision of such support to be successfully implemented in the United States, a case must be made to a wider audience that the lack of work and family policy is costly to employers or to governments, either in terms of lack of adequate nurturance of children; lack of necessary investment in the productivity of future workers; increased absenteeism, lower worker productivity and higher turnover of employees; or increased health costs of current workers that result from work and family stress.[50]

Making the case for greater government and private-sector involvement in the work and family arena is in its infancy in the United States. The challenge is to implement policies that fit the needs of workers at all socioeconomic levels and all life stages—for all those who need child-care or elder-care services, adequate wages and more and better work hours, reduction in work hours, or greater flexibility in meeting family demands.[51] Policies must address an employer's need to remain competitive in an increasingly global marketplace, and must build upon rather than erode the progress made toward gender equality in paid and unpaid work.[52]

It is possible that the increased educational attainment of Generation X women may portend a surge in full-time/year-round employment. Yet our results suggest that women and men may have reached their limits in terms of individual change. Without some adjustments on the part of employers and the government, gender differences in paid and unpaid work are likely to continue.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## Suggested Resources

U.S. Census Bureau website on families
www.census.gov/population/www/socdemo/hh-fam.html

The Families and Work Institute
www.familiesandwork.org

The Institute for Women's Policy Research
www.iwpr.org

The Urban Institute
www.urban.org

# Gender Inequality at Work

*By David A. Cotter, Joan M. Hermsen, and Reeve Vanneman*

## INTRODUCTION

A cigarette advertising slogan of the 1980s targeting women proclaimed: "You've come a long way, baby." By all accounts, this slogan is true. The transformation of men's and women's work roles stands out among the many technological, economic, social, and cultural changes in the last half of the 20th century. In 1950, only a small number of women (29 percent) worked outside the home; but in 2000, nearly three-quarters of women did. In 1950, women who were employed worked in a relative handful of nearly exclusively female occupations; but by 2000, women worked in nearly the entire spectrum of occupations. On average, a woman in 1950 earned 59 cents for every dollar earned by a man, while in 2000, she earned 73 cents. The scale of this change is indeed monumental, and its momentum has made it in retrospect seem almost inevitable.

Despite this progress, however, inequality remains between men and women. In 2000, men were still more likely than women to have access to paid employment, to be employed in better jobs, and to be better paid in those jobs. Additionally, across three main dimensions—work outside the home, kind of job, and pay—progress for women slowed and even reversed in the last decade of the century.

This report tracks changes in work-related gender inequality in the 1990s, placing these changes in the context of trends over the last 50 years in educational attainment, work experience, politics, and attitudes. The report also examines variations in inequality across race and ethnic groups, education levels, and age cohorts. The analysis contained in the report relies on data from the 1950 to 2000 censuses as well as from Current Population Surveys (CPS) from 1963 to 2002.

For the most part, the report focuses on the working-age population, people between the ages of 25 and 54. These people can be expected to have finished their education, but they are not likely to have begun to retire.

Three central conclusions emerge from our analysis of changes in gender inequality over time:

- Gender inequality in the labor market persists. While nearly nine of every 10 men are in the labor force, only three of four women are working. In addition, women and men continue to be highly concentrated in typically female and typically male jobs, respectively. Women continue to earn substantially less than men.
- The declines in gender inequality in the labor market that have been evident since at least 1950 have essentially stalled. The 1990s were a time of stability and possibly even retrenchment with regard to gender inequality. This decade may mark the end of an era of profound changes in women's labor market position. For each of the primary outcomes examined—labor force participation, occupational segregation, and earnings—the end of the 1990s closely resembled the beginning of the 1990s: a pattern of stability not seen in over 50 years.
- Notable variation exists across demographic groups in the pattern and degree of inequality experienced. For example, blacks and Hispanics lag behind whites in rates of labor force participation, the degree of occupational integration, and the level of earnings; and important differences in labor force participation and earnings have become more pronounced when comparing female high school dropouts with female college graduates.

Thus, our findings suggest that while both women and men have "come a long way," there is still a long way to go, and progress in the United States on gender equality seems to be slowing.

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# Labor Force Participation

Women's increased participation in paid work is a central change in gender relations over the last 50 years. The question is no longer whether the average woman will work or not, but rather when during her life course she will work. Most women now work—women at all education levels, of each racial and ethnic group, and across successive family statuses.

Labor force participation is often seen as the prime indicator (and cause) of changes in women's status. As far back as Friedrich Engels' or Charlotte Perkins Gilman's writings on the subject in the late 1800s, social scientists and other observers have identified employment outside the home as the starting point for understanding women's position in society. Social theory often focuses on women's employment because employment determines their access to resources and their ability to make independent decisions.

By the year 2000, only a small margin separated men's and women's presence in the labor force. Nearly 74 percent of women ages 25 to 54 were in the paid labor force, either looking for work or actually working at least part-time. (See Box 1 for a discussion of employment, unemployed, or working part-time or part-year. In 1999, nearly 46 percent of women and 68 percent of men were employed full-time/year-round.

*Box 1*

## Measures of Employment

Measuring employment can be simple: Either you have a job or you don't. However, social scientists use many different measures to draw distinctions about one's relationship to the labor market. Several of these measures are discussed below, and corresponding data are presented in the table.

### In the Labor Force

The labor force participation rate accounts for individuals currently employed or seeking employment—the percentage of people who want or already have jobs. The advantage of this measure is that it indicates how widespread the desire for paid work is, an issue particularly important when considering how women's roles have changed over time. In 2000, nearly 74 percent of women and 86 percent of men were in the labor force. Of those in the labor force, some were unemployed and seeking work (between 4 percent and 5 percent of women and men in the labor force were classified as such).

### Usual Hours and Number of Weeks Worked

Because the labor force participation rate is a gross measure of employment, it tells us little about how much those who are employed actually work. For this information, one would need to examine the distribution of hours and weeks worked. A measure of usual hours worked tells us whether someone typically works part-time or full time, which is an important consideration when evaluating women's work patterns because women are more likely than men to work part-time. An indicator based on the number of weeks worked in a year accounts for the potential instability of employment and the movement of people in and out of jobs. As with hours worked, women work fewer weeks per year than do men.

### Full-Time/Year-Round Employment

Information on usual hours worked and weeks worked in the past year can be used to construct a measure of full-time (35+ hours/week)/year-round (50+ weeks/year) employment. Estimates of employment made using this measure are considerably lower than those for labor force participation because these estimates are based on stringent restrictions. Gender differences in employment, however, are substantially higher when considering full-time/year-round employment, because women are more likely than men to be out of the labor force,

**Measures of Employment**

| Employment status | Women (%) | Men (%) |
|---|---|---|
| **Out of labor force in 2000** | 26.5 | 14.4 |
| Of whom: | | |
| Did not work in 1999 | 69.3 | 51.9 |
| Worked in 1999 | 30.7 | 48.1 |
| **In labor force in 2000** | 73.5 | 85.6 |
| Of whom: | | |
| Unemployed, 2000 | 4.5 | 4.2 |
| Employed, 2000 | 95.5 | 95.8 |
| Of whom: | | |
| Did not work in 1999 | 2.4 | 1.5 |
| Worked in 1999 | 97.6 | 98.5 |
| Usual hours worked | | |
| 1–16 | 4.6 | 1.3 |
| 17–34 | 15.5 | 4.0 |
| 35–40 | 58.2 | 49.4 |
| 41–59 | 17.5 | 32.6 |
| 60+ | 4.3 | 12.6 |
| **Number of weeks worked in 1999** | | |
| 1–24 | 5.7 | 3.1 |
| 25–49 | 21.3 | 14.8 |
| 50–52 | 73.0 | 82.1 |
| **Worked full-time (35+ hours/week)/ year-round (50+ weeks/year) in 1999** | 45.6 | 67.9 |

Note: Labor force participation calculated for men and women ages 25–54.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

### Out of the Labor Force

Individuals who are not employed or actively seeking work are considered out of the labor force. In 2000, approximately 27 percent of women and 14 percent of men were out of the labor force. Some of these people had work-limiting disabilities, others chose not to work, and still others stopped seeking work when their earlier job searches failed.

ment measures.) Men's rates were only slightly higher, at 86 percent. Gender difference was somewhat larger for full-time/year-round employment. In 1999, 46 percent of women and 68 percent of men ages 25 to 54 were employed full-time/year-round.

These gender differences are small in historical perspective. Consistent with popular perception, women were much more likely to work outside the home by the end of the 20th century than at any time since 1950. As shown in Figure 1, women ages 25 to 54 have increased their labor force participation rate steadily, by between 8 percentage points and 14 percentage points for each decade from 1950 to 1990. In 1950, only 33 percent of women were in the paid labor force. By 1970, that figure had increased to 49 percent, and by 1990, to 74 percent. This upward trend has often been interpreted to signify women's increasing equality with men. The growth in labor force participation is also cited as an underlying cause for other changes in gender relations such as marital power, fertility patterns, and political representation.

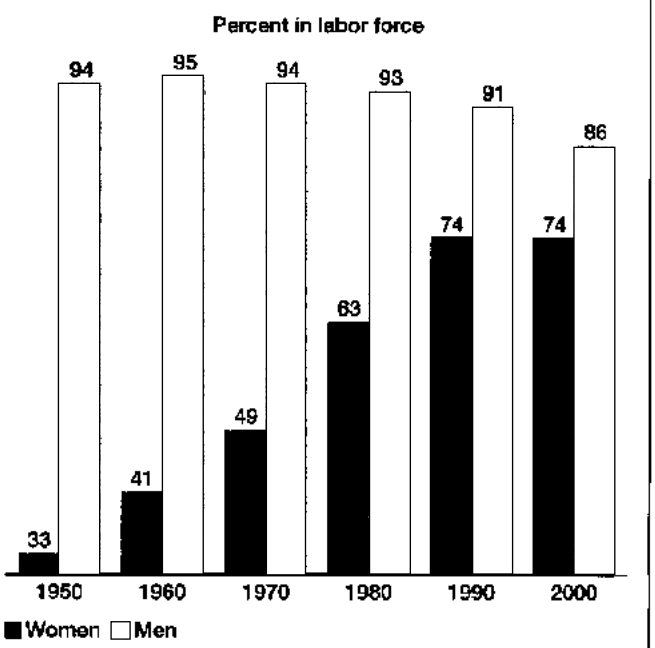
Census 2000 shows no similar increase in women's labor force participation rate during the 1990s. The reported 2000 women's labor force participation rate of 74 percent is not notably different from the 1990 rate. Some of the stagnation in the 1990s is exaggerated by a slight change in wording of the Census 2000 employment question that depressed reports of labor force participation. But stagnation during the 1990s was also seen in the annual CPS, where the question's wording did not change. Like the census, the CPS recorded large increases in the past—from 48 percent in 1970 to 74 percent in 1990. The CPS rate in 2000 was 78 percent, slightly higher than the 1990 Census rate but still far below what would have been expected based on increases of previous decades.

The end of increasing labor force participation for women in the 1990s is surprising. It is too early to say if this lack of change is temporary; perhaps the strong 1990s' economy allowed a reemergence of the single-paycheck family. To understand this finding, it is important to recognize how the patterns of women's labor force participation, and particularly how the changes in the 1990s, have varied across groups of women.

## Labor Force Participation by Family Status

The prime employment years of 25 to 54 are also the prime childrearing years. The concurrent demands of work and family have long shaped the ways in which women and men engage in the labor market. Nevertheless, the patterned ways in which families reconcile these demands have changed over the past five decades. The 1990s were no exception. Tracing the changes in labor force participation separately by family status confirms that the 1990s represent a break from the recent past.

*Figure 1*
**LABOR FORCE PARTICIPATION FOR U.S. WOMEN AND MEN, 1950–2000**




Note: Labor force participation calculated for men and women ages 25–54.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

### Census 2000 Findings

Married mothers of young children are less likely to be in the labor force than are any other women or men of comparable age. Nevertheless, a majority of even these women were employed or looking for work in 2000. Sixty percent of married mothers with a child younger than 6 years old at home were in the labor force. This compares with between 72 percent and 82 percent of women with other family statuses (see Table 1, page 110). Once their children are in school, married mothers increase their labor force participation to levels approaching those of married women with no children at home. These mothers are less likely to work full-time/year-round than are married women with no children at home. Part-time or seasonal employment is common among all mothers, but even among mothers with young children at home, full-time/year-round employment is the most common option among those mothers in the labor force.

The presence of children at home makes less difference for never-married or formerly married mothers. Single women, whether mothers or not, are more likely to be in the labor force than married women. In fact, divorced and separated women with school-age children were more likely to be in the labor force than were women

*Table 1*

**LABOR FORCE PARTICIPATION RATES FOR U.S. WOMEN AND MEN BY FAMILY STATUS, 2000**

| | Women | | | Men | | |
|---|---|---|---|---|---|---|
| Marital status | Children under age 6 at home | Only children ages 6 to 17 at home | No unmarried children under 18 at home | Children under age 6 at home | Only children ages 6 to 17 at home | No unmarried children under 18 at home |
| **Labor force participation (%)** | | | | | | |
| Currently married | 60 | 74 | 76 | 92 | 92 | 84 |
| Formerly married | 77 | 82 | 77 | 88 | 88 | 80 |
| Never married | 72 | 75 | 80 | 85 | 84 | 80 |
| **Full-time/year-round employment (%)** | | | | | | |
| Currently married | 31 | 41 | 51 | 77 | 78 | 69 |
| Formerly married | 45 | 56 | 54 | 69 | 72 | 59 |
| Never married | 39 | 47 | 54 | 62 | 61 | 55 |

Note: Data are for men and women ages 25–54 in a single-family household.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

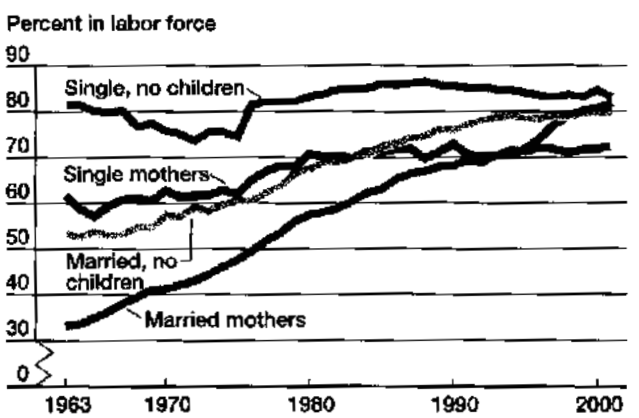
without children. Never-married mothers also had high labor force participation rates in 2000, contrary to the stereotype of idle welfare mothers living off the dole.

### Long-Term Trends

Single and married mothers' labor force participation diverged sharply in the 1990s. Married mothers' labor force participation held constant through the last half of the 1990s—reversing the long trend of these mothers for the fastest increases in labor force participation (see Figure 2). In contrast, single mothers' labor force participation increased significantly in the 1990s—also a change from their recent past pattern of little change in labor force participation since the late 1970s. Single mothers have always worked more than their married counterparts, but the difference between them had been narrowing for some time. In the mid-1990s, the two groups went in opposite directions. Single mothers increased their rates of labor force participation to levels almost equal to single women without children. This increase rules out a ceiling effect as an explanation for the stagnation of married women's rates in the 1990s. If there is some upper bound on women's labor force participation, the increases for single mothers in the 1990s showed it has not yet been reached. Thus, the end of the growth in married mothers' labor force participation is the most unexpected gender turnaround of the 1990s.

*Figure 2*

**LABOR FORCE PARTICIPATION BY FAMILY STATUS, WOMEN AGES 25–54, 1963–2002**




Source: U.S. Census Bureau, Current Population Surveys, March Supplement, 1962–2002.

Women with no children at home showed little change in entering the labor force during the 1990s. Women without children work more often than mothers do, but Figure 2 shows that those high levels held constant during the 1990s. Married women without children, like married mothers with children at home, had been increasing their labor force participation through much of the century, although at less dramatic rates. Those increases stalled in the 1990s, as did the employment rates of married mothers.

Single women with no children have the highest rates of labor force participation, but that has always been true, and those high rates have not changed much in the last quarter-century. Married women had been narrowing the gap with single women, but that ended in the 1990s.

## Labor Force Participation by Age, Period, and Cohort

### Age, Period, and Cohort Effects

When demographers examine social change, one of the first things they check is whether these changes come

from time-period effects common across the whole population or whether the changes result more from the distinctive characteristics of new cohorts replacing quite different older cohorts. To distinguish cohort effects from period effects requires analysis of age effects as well, since in any year what appear to be cohort differences may just be age effects.

- *Age effects* describe how individuals change over their lifetimes. Retirement is a typical example of an age effect. Social and legal prohibitions also prevent children from entering the labor force, another age effect. Age also has indirect effects on labor force participation by helping to pattern life course events such as marriage and childbearing. These age effects are strong enough so that we limit most of our analyses to the "prime years" between 25 and 54. We make an exception in this section in order to capture the full range of age variations.
- *Period effects* tell us about how historical changes in a society affect all individuals in that society. Specific events often lead to changes in gender inequality. The advent of the birth control pill in the early 1960s dramatically affected women's ability to control fertility, and therefore may have increased their participation in the labor force. The passage of equal employment legislation in the 1960s and 1970s is another example of a possible period effect on gender differences. Sometimes period effects are harder to date exactly but are nevertheless likely to have had broad impacts—for instance, when the women's movement of the 1970s raised fundamental issues about gender equality.
- *Cohort effects* identify generations of people who move together through history and who share common historical experiences that uniquely affect them. The baby-boom cohort is perhaps the most familiar contemporary example. Another cohort, The Depression Generation, came to political maturity during the Depression and New Deal and were forever marked by that experience. For gender issues, an important cohort is women who came of age after the advent of the pill and during the feminist revolution of that time; they are particularly important in understanding changes in gender relations. What makes cohort effects so interesting is that a whole society can change without any particular individuals changing what they think or do. For example, if recent cohorts accept more feminist positions than previous cohorts, eventually the society will adopt the positions of the recent cohort without any individual having changed her own behavior.

Of course, most social changes present some combination of all three of these effects, and disentangling the effects has become something of an art form because of the implicit and easily overlooked relationships between age, period, and cohort differences. If we know any two of these relationships, then the third is completely specified by the other two. Age can always be computed as census year minus birth year, and therefore age effects can always be expressed as the difference between cohort and period effects. Or period effects can always be expressed as the combination of cohort differences and aging. Any attempt to disentangle these three effects that does not acknowledge these identities will be misleading. Below are descriptions of the complex patterns of how labor force participation varies across time and cohorts (and thus across age).

### Census 2000 Findings

The likelihood that a woman will be in the labor force varies substantially over her life. As we have seen, many women exit the labor force when they become mothers; therefore, labor force participation rates have traditionally been lower for women in their late 20s through early 40s than for younger or older women—a characteristic referred to as the "double maxima pattern." However, the 2000 age profiles of women's and men's labor force participation are strikingly similar. Women's labor force participation by age is comparable to men's (albeit at a lower level)—sharply rising from the teen years into early adulthood, remaining fairly stable in the prime years, falling sharply after the mid-50s, and then trailing off. In 2000, there was some evidence of a slight dip in labor force participation rates as women reached their mid-20s to mid-30s. However, women in their early 40s worked at the same rates as women in their early 20s.

### Long-Term Trends

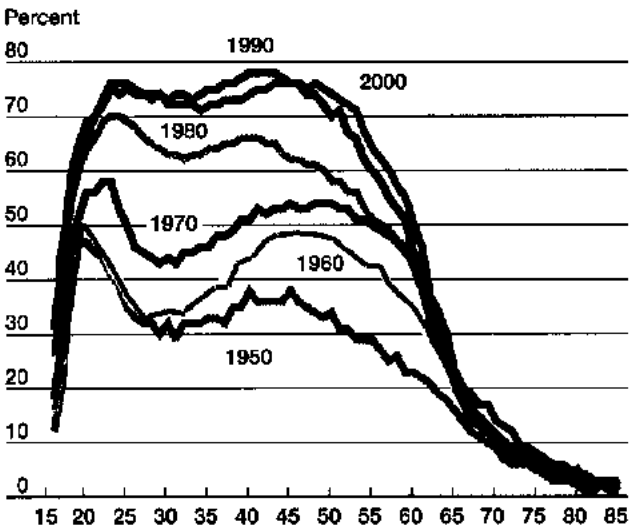
By age, women's labor force participation rates have not always so closely resembled men's. In the 1960s and 1970s, the labor force participation rates of women in their mid-20s to mid-30s were substantially lower than those of younger and older women, giving the trend line for women's labor force participation by age a roller-coaster appearance (see Figure 3, page 112). By 1980, the roller-coaster track began to flatten, reflecting lower fertility and fewer women leaving the labor force at marriage and childbirth. The dip also shifts to somewhat later ages at which women were marrying and having their first child. By 2000, the trend line hardly dips for women in their 20s and 30s. The pattern is also somewhat attenuated in 1950, but for different reasons than in 2000. In 1950, many fewer women returned to work after their children were in school or left home, so the labor force participation rates for women in their 50s never approached the peak of 20-year-old women.

### Cohort Differences

The cross-sectional, point-in-time analysis presented above—while fairly clear—implies a problematic con-

*Figure 3*

**WOMEN'S LABOR FORCE PARTICIPATION BY AGE, 1950–2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

clusion: The rates for women who are now 55 predict the future life course for women who are now 25. But perhaps the differences between current 25-year-olds and current 55-year-olds reflect permanent differences between generations that will not disappear with time.

Cohort analyses are often offered as a solution to this problem. By using multiple censuses, cohort analyses track the labor force patterns for each generation as it ages across the life span (see Table 2). Reading across rows, one sees an age effect—what each generation of women actually experienced. For instance, for the cohort born between 1935 and 1944, labor force participation rose steadily until retirement age, when the rates declined sharply.

Reading down columns, one sees how cohorts differ from one another. For instance, the second column, at ages 25 to 34, shows how the late baby boomers, born between 1955 and 1964, differ from an earlier generation, born between 1925 and 1934. This comparison illustrates the cohort effect because it compares different birth cohorts at the same point in their life cycle. Enormous labor force increases occurred across young-adult cohorts. For example, 35 percent of those born between 1925 and 1934 were in the labor force at ages 25 to 34. This is much lower than the 74 percent of women born between 1955 and 1964 who were in the labor force at ages 25 to 34.

However, the increases from 32 percent in the earliest cohort to 73 percent in the latest cohort may not be the result of true cohort effects. These increases may be just a period effect common to all cohorts: Women born between 1915 and 1924 reached early adulthood around 1950, when few women were in the labor force at any age. And post-baby-boom women born between 1965 and 1974 reached early adulthood around 2000, when labor force participation rates were much higher. Unfortunately, this arrangement of a cohort table obscures the period effect of changes over time. To know rates for any census year, one has to read along the diagonal in Table 2—which is shaded to represent results from the 2000 Census.

If the cohort differences in column 2 of Table 2 represent lasting cohort effects, those differences should

*Table 2*

**WOMEN'S LABOR FORCE PARTICIPATION BY BIRTH COHORT, AGE, AND CENSUS YEAR, 1950–2000**

| | % in labor force by age | | | | | | | % in labor force by census year | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Birth cohort | 16–24 | 25–34 | 35–44 | 45–54 | 55–64 | 65–74 | 75–84 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 |
| 1885–1894 | | | | | 24 | 13 | 5 | 24 | 13 | 5 | | | |
| 1895–1904 | | | | 33 | 35 | 14 | 4 | 33 | 35 | 14 | 4 | | |
| 1905–1914 | | | 35 | 47 | 42 | 12 | 4 | 35 | 47 | 42 | 12 | 4 | |
| 1915–1924 | | 32 | 43 | 53 | 42 | 13 | 5 | 32 | 43 | 53 | 42 | 13 | 5 |
| 1925–1934 | 38 | 35 | 51 | 59 | 45 | 15 | | 38 | 35 | 51 | 59 | 45 | 15 |
| 1935–1944 | 39 | 45 | 65 | 71 | 51 | | | | 39 | 45 | 65 | 71 | 51 |
| 1945–1954 | 46 | 65 | 77 | 74 | | | | | | 46 | 65 | 77 | 74 |
| 1955–1964 | 58 | 74 | 74 | | | | | | | | 58 | 74 | 74 |
| 1965–1974 | 62 | 76 | | | | | | | | | | 62 | 73 |
| 1975–1984 | 62 | | | | | | | | | | | | 62 |

Note: Labor force participation calculated for women ages 16–84. Outlined cells are for the prime working ages 25–54. Shaded cells are from Census 2000.
Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

remain even after the earlier cohorts enter the times of elevated labor force participation at the end of the 1990s. That persistence of effect doesn't happen. For instance, at ages 25 to 34, women born between 1935 and 1944 had participation rates that were 20 percentage points lower than those women in the very next cohort (45 versus 65). But by the time of later adulthood, at ages 45 to 54, the women born between 1935 and 1944 had almost caught up with the cohort that followed them (71 versus 74), suggesting that the early difference was more of a period effect than a lasting cohort effect. Baby-boom women had the advantage of entering the labor market at a time when labor force participation rates were increasing for all women. These time-period effects are more clearly seen on the right side of Table 2, which shows how each cohort progressed through each period rather than through each age range. Every birth cohort that had not yet reached retirement increased its labor force participation between 1960 and 1990. Even for the earlier cohorts, the retirement decline is weaker because these cohorts reached retirement ages just as labor force participation rates were growing.

These observations suggest that the best way to interpret the increases in women's labor force participation during the last half of the last century is as a period effect that changed labor supply for all cohorts. The age distributions from Figure 3 are probably the most parsimonious way to describe the changes: Each succeeding decade had higher rates of labor force participation, and these period effects were especially important for women ages 25 to 40.

## Labor Force Participation by Race and Ethnicity

Race matters in the United States. It shapes our everyday experience and our life chances in as fundamental a way as gender does. In fact, some observers contend that race and gender interact to create unique patterns of gender inequality across racial and ethnic groups. Others note that many of the transformations in gender inequality have been so broad as to cross racial and ethnic lines. Thus, the story is simultaneously one of diversity and similarity.

### Census 2000 Findings

Women's labor force participation rates varied widely across racial and ethnic groups. White women and Filipinas had the highest participation rates of any groups (see Table 3). Black women had a rate almost as high as white women's. Hispanic women tended to have lower rates, but there was substantial variability among Hispanics: Only 58 percent of Mexican American women were in the labor force, while 69 percent of Cuban American women were. There was even greater

*Table 3*

**LABOR FORCE PARTICIPATION RATES FOR U.S. WOMEN AND MEN BY RACE AND ETHNICITY, 2000**

| Race/ethnicity | Women (%) | Men (%) | Ratio women/men |
|---|---|---|---|
| **White (only)** | 75 | 89 | 0.85 |
| **African American** | 73 | 72 | 1.02 |
| **Hispanic (any)** | 61 | 77 | 0.79 |
| Mexican | 58 | 78 | 0.75 |
| Puerto Rican | 63 | 73 | 0.85 |
| Central American | 64 | 80 | 0.80 |
| South American | 66 | 82 | 0.81 |
| Cuban | 69 | 77 | 0.89 |
| Dominican | 61 | 71 | 0.86 |
| **Asian (any)** | 67 | 84 | 0.80 |
| Chinese | 70 | 86 | 0.82 |
| South Asian | 59 | 88 | 0.68 |
| Filipina | 77 | 84 | 0.92 |
| Southeast Asian | 65 | 78 | 0.84 |
| Korean | 61 | 80 | 0.77 |
| Japanese | 68 | 89 | 0.76 |
| **American Indian** | 69 | 78 | 0.88 |
| **Pacific Islander** | 71 | 80 | 0.88 |

Note: Labor force participation calculated for men and women ages 25–64.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

variability among Asian ethnic groups: Filipinas had the highest rates (77 percent), and South Asian women had the lowest (59 percent). American Indian and Pacific Islander women had rates slightly below white women's. Full-time/year-round employment rates were lower for each group, but the pattern across racial and ethnic groups (not shown) was similar. White, black, and Pacific Islander women were most likely to work full-time/year-round; American Indian and Hispanic women were least likely to do so.

Although women from most racial and ethnic groups were less likely to be in the labor force than white women, the same racial and ethnic groups may have had more gender equality in participation rates because of the low participation rates among men. The rate for Hispanic men (77 percent), for instance, was almost as far below the rate for white men (89 percent) as the rate for Hispanic women was below that for white women. The level of gender inequality in labor force participation was not very different when comparing Hispanics (79 percent) with non-Hispanic whites (85 percent).

Gender differences among African Americans were even more distinctive. While African American women were slightly less likely than white women to be in the labor force, African American men were far less likely

than white men to be in the labor force. In fact, the African American women's labor force participation rate was slightly *higher* than the African American men's rate, one of the few instances when the usual gender inequality was reversed and favored women.

Gender inequality among Asian labor force participation rates varied widely across ethnic groups. The high participation rate of Filipina women was close to that of Filipino men, but the low rate of South Asian women contrasted with a high rate among South Asian men—one that approached the rate of white men.

The question of gender differences among racial and ethnic groups is complicated because two comparisons are possible. The above calculations use within-race comparisons, but such comparisons have the disadvantage that a racial and ethnic group may be more gender-equal than whites not because women in the group work more but because the men work less. An alternative between-race comparison keeps a constant comparison group, usually white men, because they are the most privileged group. Thus, inequality for black women is greater than for white women when using this between-race measure, but not when using the within-race comparison. Within-race comparisons appear throughout this report but do not mean that, when gender inequality within a racial or ethnic group is less than among whites, the women in that group work more than white women.

### Long-Term Trends

The dramatic increases in labor force participation rates between 1950 and 1990 affected women of all racial and ethnic groups. For most of the period, black women and Asian women had the highest rates of participation, while American Indian women and Hispanic women reported the lowest rates. The participation rates of white women have equaled those of black women and Asian women only since 1990.

Similarly, the 1990s was a period of stagnation in labor force participation rates for women of all racial and ethnic groups. While the change in the wording of the race question in the 2000 Census exaggerates the declines (especially among African Americans and Hispanics), data from the Current Population Survey confirm the stagnation for all groups. Thus, both the increases from 1950 to 1990 and the unexpected plateau in the 1990s were shared across racial and ethnic groups.

## Labor Force Participation by Education Level

Education is frequently seen as preparation for the labor force—as training for employment. As such, education is often thought of as an investment in human capital or skills to be brought to market. The more education one has invested in, the more skills one has obtained and the better job one can expect. The higher the income one expects, the greater the incentive to be in the labor force. But education can also be thought of as a proxy for class, especially in terms of life chances. In either interpretation, education strongly conditions both the likelihood that an individual will be in the labor force and the type of work he or she does.

For married women, education has dual consequences: It increases their value in the labor market and thus raises the incentive to work. On the other hand, educated women tend to marry educated men, and these men have a higher incentive to work and have higher incomes. For women, this "unearned income"—income available whether women work or not—is a disincentive for employment. For most women, the incentive effects of higher education outweigh the disincentives.

### Census 2000 Findings

In 2000, labor force participation rates increased at each higher education level for both men and women (see Table 4). Ninety-four percent of male and 82 percent of female college graduates were in the labor force. Similarly, 83 percent of male and 69 percent of female high school graduates were in the labor force. The rates dropped off sharply for high school dropouts, but the gender gap remained similar.

### Long-Term Trends

Women of all education levels increased their labor force participation steadily from 1960 to 1990 (see Table 4). However, all groups saw a decline in participation from 1990 to 2000. There was also a decline among college women between 1950 and 1960. Only among high school dropouts was there a noticeable growth in labor force participation in the 1950s. Since the 1950s, however, labor force participation rates among high school dropouts, always the lowest, have grown more slowly than for other women, so the gap between high school dropouts and those with at least a high school diploma has grown since 1970. For women, education has become an increasingly important predictor of labor force participation.

Among men, labor force participation rates fell for all education groups from 1960 to 2000. Surprisingly little attention has been paid to the decline in men's labor force participation. Most research suggests some combination of men dropping out of the labor force due to declining wages, and a decline among married men whose wives' income allows the men to leave the labor force. This decline was particularly pronounced for high school dropouts. Until 1970, men's labor force participation rates differed little by education level. By 1980, high school dropouts had fallen behind high school graduates, and the pattern worsened through 2000. The percentage of men who have less than a high school degree has declined substantially over time, and some immigrant groups are disproportionately located among groups

*Table 4*

**LABOR FORCE PARTICIPATION RATES FOR U.S. MEN AND WOMEN BY EDUCATION, 1950–2000**

| Education | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|---|
| **High school dropout** | | | | | | |
| Women (%) | 35 | 39 | 45 | 50 | 53 | 49 |
| Men (%) | 89 | 93 | 90 | 85 | 79 | 68 |
| Ratio women/men | 0.39 | 0.42 | 0.50 | 0.59 | 0.67 | 0.72 |
| **High school graduate** | | | | | | |
| Women (%) | 41 | 41 | 50 | 63 | 72 | 69 |
| Men (%) | 94 | 97 | 96 | 94 | 91 | 83 |
| Ratio women/men | 0.43 | 0.42 | 0.52 | 0.67 | 0.79 | 0.84 |
| **Some college** | | | | | | |
| Women (%) | 48 | 44 | 51 | 69 | 79 | 78 |
| Men (%) | 88 | 96 | 95 | 94 | 93 | 89 |
| Ratio women/men | 0.54 | 0.46 | 0.54 | 0.73 | 0.85 | 0.88 |
| **College graduate** | | | | | | |
| Women (%) | 60 | 55 | 61 | 76 | 84 | 82 |
| Men (%) | 92 | 97 | 97 | 96 | 96 | 94 |
| Ratio women/men | 0.65 | 0.56 | 0.63 | 0.79 | 0.88 | 0.88 |

Note: Rates calculated for men and women ages 25–54.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

with less than a high school degree. Overall, education is now as important a predictor of labor force participation for men as it is for women.

Gender differences in labor force participation rates are dominated by the larger changes among women, so gender inequality ratios are driven more by changes to women's labor force participation than to men's (see Table 4). A ratio of 1.0 indicates men and women have equal labor force participation rates, while a ratio below 1.0 indicates women are less likely to be in the labor force than similarly educated men. Since 1960, there has been an upward trend in all participation ratios, indicating growing similarity between women and men for all education groups. The gender revolution in labor force participation spread across levels of education just as it spread across racial divisions.

## Sweeping Change

The data reviewed above present a picture of broad-based change. Most women today are in the labor force regardless of racial, age, education, marital, and parental status. This situation represents an enormous change from the 1950s, when most women were not active in the labor force. At the same time, the rate of increase in women's labor force participation may have slowed in the last decade, and even begun to reverse among married mothers. The next question is: Where are the women who have entered the labor force in the last 50 years?

# TRENDS AND PATTERNS IN MEN'S AND WOMEN'S OCCUPATIONS

Women and men in the labor force do very different kinds of work. In general, the differences in women's and men's work persist, but are much reduced from a half-century ago. The integration of work marks another aspect of stunning change. Little more than 30 years ago, the idea of women becoming doctors, clergy, bartenders, or bus drivers in numbers equal to men would have seemed naive. But, as the data reveal, this equalization is precisely what has happened. However, as with labor force participation, there is still a considerable gap in the occupations that men and women hold. Many have remained decidedly male or female and, as with labor force participation, there is good evidence that integration has stopped in recent years.

## Census 2000 Findings

Despite the fact that women make up nearly half of the labor force, men and women work in very distinct occupations. An occupation is a convenient way of categorizing the many different kinds of work that people do, grouping similar kinds of work performed in different settings. For instance, people who examine other people's physical and psychological condition and make recommendations about their treatment (doctors, psychiatrists, psychoanalysts, chiropractors, and nurses) are all "health diagnosing and treating practitioners." Similarly, people who sell things, such as art dealers, insurance agents, or gas station attendants, are all in sales and related occupations. Different coding systems categorize occupations into greater or lesser degrees of detail and make gross or fine distinctions among the types of work done.

The level of occupational detail is important for understanding gender differences, since the more detailed the coding system, the more segregated men's and women's work will appear. This can be illustrated by the difference between "teachers" at various levels. If all teachers are grouped, 74 percent of them are women. But if this group of teachers is disaggregated by grade level, 97 percent of preschool, 78 percent of elementary and middle school, 58 percent of secondary school, and 46 percent of college teachers are women. Thus, greater detail allows a more accurate estimate of how much segregation there is. In fact, some researchers have analyzed cross-classifications of industries and occupations or even organization-level data on job titles, and each analysis results in higher estimates of the "true" degree of gender segregation.[1]

The Census Bureau uses several occupational coding systems with varied degrees of detail. In 2000, there were

505 categories, but the microdata file collapses that number slightly to 475. The percentage of women in each of these occupations ranges from 98 percent for preschool teachers to 1 percent for heavy-vehicle mechanics.

Scholars examining gender segregation have commonly treated occupations in which more than 70 percent of the workers are of one sex as "sex-typed" occupations.[2] By this standard, more than half (52 percent) of all women work in occupations that are more than 70 percent female, and 57 percent of men work in occupations that are more than 70 percent male. Conversely, only 11 percent of women work in "male" occupations, while 7 percent of men work in "female" occupations. That leaves less than half of men (41 percent) and women (37 percent) working in "mixed" occupations (those between 31 percent and 69 percent female). Among the most heavily female occupations in 2000 were secretaries, cashiers, and elementary- and middle-school teachers; while the overwhelmingly male occupations were truck drivers, laborers and material movers, and janitors and building cleaners. The predominantly mixed occupations were retail sales workers, supervisors of retail sales workers, and miscellaneous managers.

A principal tool that scholars use to describe patterns of gender segregation is the dissimilarity index.[3] This measure can be interpreted as the percentage of women or men who would have to change occupations in order for each occupation to be evenly female—that is, to match the gender distribution in the labor force as a whole. Using this set of occupations, more than half (52.0 percent) of all women or men would have to change occupations in order for all occupations to match the 46.5 percent female rate found in the labor force as a whole.

## Long-Term Trends

The Census Bureau has changed the occupational classification system almost every decade. The 2000 Census was no exception. These changes reflect, in part, changes in the type of work we do, but also changes in our understanding of that work.[4] These changes in classification cause problems for comparing changes in the kinds of work that women and men do. To have comparable occupations over these 50 years, it was necessary to recode all the occupations into a standard set of 179 occupations. This smaller set, however, limits the detail about the types of occupations, resulting in underestimates of the levels of segregation.

The rapid entry of women into the labor market in the 1960s, 1970s, and 1980s had consequences for the types of jobs they held. During these decades, women gained access to many occupations that had previously (whether formally or informally) been closed to them. But women's entry into occupations was uneven. Many occupations remain nearly as heavily male or female as they were in the 1950s. Some occupations have even *become* predominantly female since the 1950s (see Table 5). For example, while women have made some inroads into the skilled trades, women are only slightly more likely to be electricians or mechanics today than in 1950. Similarly, despite much popular attention to the phenomenon of the male nurse, a patient is nearly as likely today to have a female nurse as in 1950, children are equally likely to have a female teacher in 2000 as in 1950,[5] and the office secretary is just as likely to be a woman today as in 1950.

In other occupations, though, changes have been far more substantial. For instance, in 1950 it was extremely unlikely to find a woman driving a bus or mixing drinks in a bar—but by 2000, the probability was more than 50 percent. Much the same can be said about real estate agents, accountants, and bill collectors; each of those occupations had female majorities by 2000. Finally, some occupations that in 1950 were fairly evenly split between women and men have now become predomi-

*Table 5*
**WOMEN'S SHARE OF SELECTED OCCUPATIONS, 1950–2000**

| Occupation | Percent of workers who are women | | | |
|---|---|---|---|---|
| | 1950 | 1980 | 1990 | 2000 |
| **Male occupations** | | | | |
| Electricians | 1 | 2 | 3 | 3 |
| Firefighters | 0 | 1 | 2 | 4 |
| Airplane pilots | 0 | 1 | 4 | 4 |
| Truck drivers | 1 | 3 | 6 | 6 |
| Electrical engineers | 1 | 5 | 10 | 9 |
| Clergy | 4 | 5 | 11 | 15 |
| Police | 2 | 5 | 13 | 16 |
| Architects | 2 | 9 | 16 | 21 |
| **Mixed occupations** | | | | |
| Physicians | 6 | 15 | 23 | 30 |
| Lawyers | 4 | 15 | 26 | 33 |
| Mail carriers | 1 | 14 | 28 | 34 |
| Managers | 13 | 25 | 34 | 36 |
| Real estate agents | 16 | 50 | 53 | 52 |
| Bartenders | 8 | 47 | 55 | 57 |
| Bus drivers | 4 | 53 | 55 | 57 |
| Accountants and bookkeepers | 13 | 37 | 53 | 60 |
| **Female occupations** | | | | |
| Bill collectors | 17 | 62 | 68 | 72 |
| Medical and dental technicians | 41 | 67 | 73 | 73 |
| Teachers | 73 | 67 | 74 | 75 |
| Waiters and waitresses | 83 | 88 | 82 | 76 |
| Librarians | 91 | 84 | 85 | 80 |
| Nurses (professional) | 97 | 91 | 91 | 92 |
| Bank tellers | 43 | 94 | 94 | 94 |
| Secretaries and typists | 94 | 99 | 98 | 97 |

Note: Labor force participation calculated for men and women ages 25–54.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Table 6*

**CHANGES IN GENDER SEGREGATION IN OCCUPATIONS, 1950–2000**

| Source of change | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|---|
| Occupational segregation | 60.8 | 62.0 | 56.8 | 53.1 | 48.4 | 46.6 |
| Actual change from previous decade | — | +1.2 | −5.2 | −3.7 | −4.7 | −1.8 |
| Change from integration of occupations | — | +1.8 | −3.3 | −4.6 | −3.4 | +0.7 |
| Change from shifts in the occupational structure | — | −1.0 | −1.7 | +1.6 | −1.2 | −2.1 |

— Not applicable.

Note: Includes men and women ages 25–54. The dissimilarity index is the percentage of men or women who would have to change occupations for each occupation to be evenly female—that is, to match the gender distribution in the general labor force.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

nantly female. Both medical and dental technicians and bank tellers went from being just under half female in 1950 to being predominantly female by 2000.

Again, the dissimilarity index is useful for summarizing the changes throughout the occupational structure. Based on the smaller set of 179 occupations, the dissimilarity index was 46.6 for 2000 (see Table 6). This figure represents a total decline of 14.2 points in the index of dissimilarity between 1950 and 2000—just under one-third of a point each year for 50 years. At that rate, occupational segregation would disappear by the year 2150. The decline, however, has not been evenly paced over the period. Most of the change occurred from 1960 to 1990; both the 1990s (1.8 point decline) and 1950s (1.2 point increase) experienced much lower levels of change.

Declines in segregation come from two main sources. The most obvious type of change is the integration of previously segregated jobs—for example, women becoming doctors and men becoming nurses. Less obvious is the more rapid growth of already integrated occupations (the growth of the number of cooks) or the decline of segregated ones (declining numbers of miners since 1950 or of telephone operators and secretaries since 1970). Tools to decompose the changes in occupational segregation into these two components have been developed. Table 6 identifies what portion of each decade's changes represents changes in the gender composition of occupations and what percentage is just the consequence of differential occupational growth and decline. The declines in segregation seen in censuses from 1960 to 1990 resulted mostly from occupational integration, although in the 1960s and the 1980s, the more rapid growth of integrated occupations also contributed. All of the rather small decrease between 1990 and 2000 can be attributed to the growth of integrated occupations. In fact, without changes in the occupational structure, the 2000 Census would have registered an increase in occupational segregation. This reversal is consistent with the labor force participation trends that also identified the 1990s as a break from the previous decades.

Another question frequently asked about integration is how much of the change stems from women entering occupations that had been male-dominated and how much from men entering occupations that had been female-dominated. That is, are women becoming carpenters and clergy, or are men becoming librarians and nurses? The specific occupational changes summarized in Table 5 suggest that most of the change came from women entering previously male occupations. More detailed calculations confirm this conclusion. If we look at the 13.6 point drop between 1960 and 1990, about 6.3 points of that drop are the result of women's changes (women's 1990 occupational distribution looking more like men's in 1960 than women's did in 1960). None of the drop is due to changes in men's occupations: Men's occupations in 1990 looked less like women's 1960 occupations than was the case 30 years earlier. A large portion of the declining segregation is due to the simultaneous changes in men's and women's occupations to look more like each other. So, however interesting the phenomena of male nurses and librarians may be, these phenomena do not account for much of the occupational integration. The changes in the middle portion of Table 5, occupations that shifted from male-dominated to integrated, drove the decline in occupational segregation.

## Occupational Segregation by Age, Period, and Cohort

How much of the decline in occupational segregation between 1960 and 1990 was a period change common to all workers, and how much was the result of newer, more-integrated cohorts replacing earlier, more-segregated cohorts? As with labor force participation rates, the segregation trends can be disaggregated into age, period, and cohort trends (see Table 7, page 118). For segregation, the pattern is much clearer: Virtually all the change was a period change in which occupations for everybody in the labor force became more integrated, regardless of age or birth cohort. The rows in the table show the period change. Occupational segregation dropped for each cohort between 1960 and 1990. The three cohorts whose work lives extended through the entire period all dropped about 10 points in occupational segregation. The stagnation between 1990 and 2000 can also be observed for each cohort, with the possible exception of the recent 1965–to–1975 birth cohort (but in 1990, this cohort was between 16 and 24 years old, so levels of segregation may not represent the career jobs that many in this cohort would have begun after 1990).

*Table 7*

**OCCUPATIONAL SEGREGATION BY BIRTH COHORT AND CENSUS YEAR, 1950–2000**

| Birth cohort | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|---|
| 1875–1884 | 59.4 | | | | | |
| 1885–1894 | 60.5 | 61.6 | | | | |
| 1895–1904 | 61.6 | 61.8 | 56.5 | | | |
| 1905–1914 | 61.2 | 62.3 | 58.0 | 56.0 | | |
| 1915–1924 | 60.4 | 62.8 | 58.3 | 55.8 | 52.8 | |
| 1925–1934 | 59.3 | 61.8 | 58.2 | 55.4 | 51.9 | 50.6 |
| 1935–1944 | | 61.0 | 56.1 | 54.5 | 50.2 | 49.7 |
| 1945–1954 | | | 56.0 | 51.6 | 48.6 | 48.4 |
| 1955–1964 | | | | 54.6 | 47.9 | 47.7 |
| 1965–1974 | | | | | 49.4 | 46.0 |
| 1975–1984 | | | | | | 42.9 |

Note: Includes men and women ages 16–84. Outlined cells are for prime working ages 25–54. The dissimilarity index is the percentage of men or women who would have to change occupations for each occupation to be evenly female—that is, to match the gender distribution in the general labor force.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

There are much smaller differences among birth cohorts. Since 1970, the entering cohorts (born from 1935 to 1944) tend to have less occupational segregation than the cohorts that came before them (see the columns in the table). By 2000, the 1935–to–1944 cohort was entering retirement age and was about 4 points less integrated than the 1965–to–1974 cohort, whose members were beginning their adult careers. So the cohort differences over 30 years were less than half of the period changes that each cohort experienced between 1960 and 1990. Thus, the phenomenal changes in occupational segregation witnessed over the last 50 years have been experienced more within than between generations. The fact that everybody's occupation became more gender integrated accounted for most of the change.

There is also little evidence of age effects in these data. Most cohorts became more integrated as they passed through the life course, but that was because most cohorts in these censuses lived through the rapid changes from 1960 to 1990. Age differences within each census show small increases in occupational segregation with age, especially in the more recent censuses. Those age differences are the result of the small cohort differences that begin to emerge with the 1935–to–1944 cohort.

## Occupational Segregation by Race and Ethnicity

### Census 2000 Findings

As with labor force participation, occupational segregation varies by race and ethnicity as well as by gender. Not only are occupations racially segregated, but levels of gender segregation also may vary by race. Separate

*Table 8*

**OCCUPATIONAL SEGREGATION BY GENDER AND BY RACE AND ETHNICITY, 2000**

| | Gender segregation (women vs. men) | | Racial segregation (from whites of same gender) | |
|---|---|---|---|---|
| Race/ethnicity | Within race/ethnicity | Versus white men | Women | Men |
| White (only) | 52.7 | 52.7 | — | — |
| African American | 47.7 | 57.4 | 21.7 | 26.5 |
| Hispanic (any) | 51.4 | 55.9 | 23.5 | 28.3 |
| Mexican | 52.1 | 57.5 | 28.3 | 34.7 |
| Puerto Rican | 47.0 | 53.9 | 17.1 | 23.2 |
| Central American | 47.7 | 58.1 | 37.9 | 37.3 |
| South American | 42.6 | 50.8 | 21.1 | 20.4 |
| Cuban | 44.7 | 48.5 | 10.5 | 13.6 |
| Dominican | 46.4 | 56.8 | 31.3 | 31.8 |
| Asian (any) | 39.6 | 51.7 | 23.4 | 30.2 |
| Chinese | 34.4 | 49.8 | 30.7 | 36.1 |
| South Asian | 36.6 | 52.0 | 28.7 | 41.8 |
| Filipina | 40.9 | 56.6 | 24.5 | 28.5 |
| Southeast Asian | 37.3 | 55.3 | 40.8 | 35.8 |
| Korean | 38.3 | 48.3 | 28.6 | 30.5 |
| Japanese | 39.5 | 48.9 | 15.5 | 22.9 |
| American Indian | 48.3 | 50.7 | 13.7 | 16.3 |
| Pacific Islander | 45.4 | 50.1 | 15.3 | 17.1 |

— Not applicable.

Note: Occupations for men and women ages 25–54. The dissimilarity index is the percentage of men or women who would have to change occupations for each occupation to be evenly female—that is, to match the gender distribution in the general labor force. Racial segregation is measured by a dissimilarity index defined as the percentage of same gender whites or other races (such as African American or Hispanic) that would have to change occupations for each occupation to be evenly white—that is, to match the racial distribution in the labor force for each gender group.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

gender segregation indices can be calculated within each racial and ethnic group, and racial segregation indices can be calculated within each gender (see Table 8).

Two conclusions emerge from these calculations. First, women of color are generally far less segregated from white women (column 3) than from men of their own race or ethnicity (column 1). Asian women are an exception: Their racial segregation levels often approach the levels of gender segregation.

Second, levels of occupational gender segregation are quite similar across all racial and ethnic groups, except for Asians, who have substantially lower levels of gender segregation. Other groups also have lower gender segregation than whites, but the differences are small. Hispanics are about 1 percentage point below whites; African Americans and American Indians, 5 percentage points below. The lower levels of gender segregation among people of color are not the result of any privileged position of

minority women. Rather, the lower segregation results because minority men are less privileged than white men. Segregation based on race and ethnicity is greater among men (column 4) than among women (column 3).

### Long-Term Changes

Changes in occupational gender segregation over the last half-century roughly parallel the general gender story: limited change in the 1950s, followed by declines from the 1960s through the 1990s, when declines slowed or ended. Like labor force participation, the changes over the last 50 years cross racial and ethnic divisions fairly consistently. Indeed, changes over time within any one racial or ethnic group are greater than the differences across these same groups (with the exception of Asians). Even Asians have experienced the same changes as other groups since 1970, although at a lower level. African Americans have seen the largest drop: In the 1950s and 1960s, their gender segregation was greater than for whites or any other group. Only since 1970 have whites had more occupational gender segregation than other racial or ethnic groups.

## Occupational Segregation by Education and Class

Education is the major determinant of the types of occupations people can enter. Does it also determine levels of gender segregation? Is gender segregation of occupations a working-class phenomenon? Many of the most male-dominated occupations are working-class occupations, especially skilled crafts (mechanics, electricians) and service work (firefighters, truck drivers). Similarly, many of the female-dominated occupations, while white collar, involve routine work that has many working-class characteristics (secretaries, bank tellers). On the other hand, some of the most dramatic changes in gender segregation are in the classic professional positions of doctors and lawyers. And the gender integration of managers has probably accounted for more of the overall integration of the labor force than has any other occupation. There are important exceptions, of course: Airplane pilots and nurses remain among the most gender-segregated occupations, while bartenders and bus drivers are now more gender-integrated than they were in the 1950s.

The class nature of gender segregation manifests itself in comparisons based on education and occupation. Comparing college-educated workers with workers who have no more than a high school diploma reveals the class division among workers. Separating working-class occupations from middle-class occupations also sheds light on the subject. The middle class includes professionals and managers (including nonretail sales), while the working class includes all other occupations. Both analyses tell similar stories: Gender segregation in occupation is stronger among the working class, and most of the change in such segregation has occurred for the middle class.

### Census 2000 Findings

In an analysis of groups by level of education—high school dropouts, those with only a high school diploma, those who went beyond high school and attended a college without getting a bachelor's degree, and those who graduated from college (including those who continued for more advanced degrees)—only college graduates were in less gender-segregated occupations than any of the other three groups. This shift was not a gradual change with more education, but an abrupt division between college graduates and those with less education. This disparity is substantial: People who did not graduate from college are in occupations that are almost half again as segregated as the occupations of college graduates.

One reason why college-educated working women are less segregated from college-educated men in occupation is that these women hold middle-class jobs, and middle-class occupations are now far less segregated than working-class occupations. In the 2000 Census, the 316 working-class occupations produced a segregation coefficient of 62; for the 155 middle-class occupations, the coefficient was only 40 (a lower coefficient signifies less segregation).

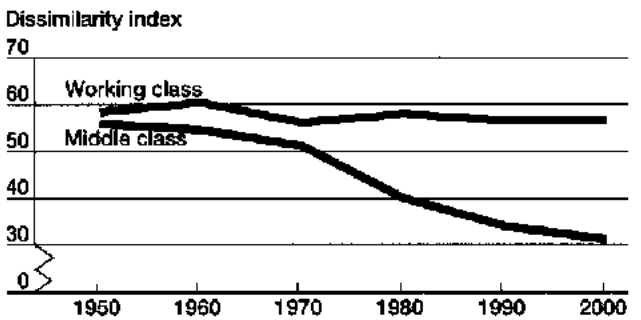
### Long-Term Trends

While the occupations of college-educated workers are now less gender-segregated than those of workers without college degrees, has this disparity always been the case? How much of the decline in occupational gender segregation from 1960 to 1990 was limited to the college-educated? Separate trends by education show that occupational segregation declined for everybody during the period, but it was most dramatic for the college-educated. The rapid decline of gender segregation among the college-educated was undoubtedly because primarily middle-class occupations were integrating. There was almost no decline in segregation for the working class. Middle-class occupations began being slightly more integrated in 1960; but by 1990, a major difference had emerged (see Figure 4, page 120).

Social class is obviously important for how integrated our jobs are. This difference is especially notable because gender segregation is almost constant across the other demographic characteristics we have examined. Race, ethnicity, age, and birth year do not seem to matter much for the degree of segregation. Not so for class: It is primarily the college-educated and those in middle-class occupations who have enjoyed the benefits of occupational integration that occurred between 1960 and 1990. On the other hand, education and class do not matter much for the rapid changes in women's labor force participation: Female high school graduates increased their labor force participation at about the same pace (although at a lower level) as female college graduates. But when female high school graduates got

*Figure 4*

**GENDER SEGREGATION IN MIDDLE-CLASS AND WORKING-CLASS OCCUPATIONS, 1950–2000**




Note: Includes working people ages 25–54. Middle-class occupations include professional and managerial (including nonretail sales) occupations. All other occupations are considered working-class occupations. The dissimilarity index is the percentage of men or women who would have to change occupations in order for each occupation to be evenly female—that is, to match the gender distribution in the labor force as a whole.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

to work in 2000, they found a much more segregated workplace than did their college-educated sisters.

## Changing Work

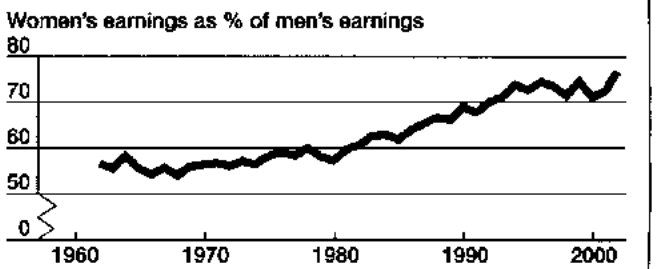
The trends and patterns outlined in this section indicate a considerable integration of men's and women's work, but a substantial amount of segregation persists. Whether one looks at individual occupations, overall distributions, or summary statistics, it is clear that the barriers that kept women from certain occupations and trapped them in others have been lowered. But it is also clear that men and women continue to occupy separate spheres in the world of work. It also appears from this data that the pace of change has slowed. For almost all groups, there was less change in integration in the 1990s than in any decade since the 1950s. Again, it remains to be seen if this is a temporary slowing or the beginning of a reversal of the trends of the 1960s, 1970s, and 1980s.

# EARNINGS

To some extent, changes in both labor force participation and occupational segregation over time are easily observable. We see more women working today and working in a wider variety of occupations than in the past. In fact, the sight of women in large numbers in previously male occupations, such as police officers and politicians, can sometimes mask the persistence of inequality. While perhaps the least directly visible of the

*Figure 5*

**GENDER RATIO FOR MEDIAN ANNUAL EARNINGS, 1961–2001**




Note: Earnings calculated for men and women, ages 25–54, employed full-time/year-round.

Source: U.S. Census Bureau, Current Population Surveys, March Supplement, 1961–2001.

three dimensions of work-related gender inequality, differences in men's and women's pay may have garnered the most public attention. Each year, when the U.S. Bureau of Labor Statistics releases results from the March Current Population Survey, a spate of newspaper stories appear on the gender gap in earnings. These stories tell both good news (a narrowing gap) or bad (a widening gap). Cumulatively, as we will see, the last 50 years have brought good news—but the differences remain large, and the gap between men's and women's earnings widened again in the last half of the 1990s.

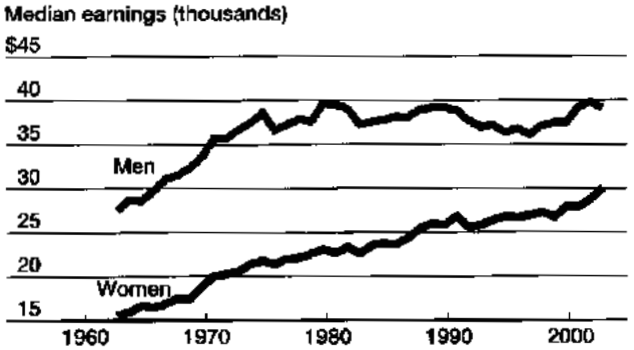
Women still earn less than men. The average woman age 25 to 54 who worked full-time/year-round in 1999 reported earnings of $28,100. That is only 73 percent of the $38,700 reported by the average man age 25 to 54. The ratio is somewhat better if hourly wages for all workers are estimated by adjusting annual earnings for the reported usual hours worked and the number of weeks worked last year. Women's average hourly wage of $12.44 is 79 percent of men's $15.72.

The gender gap in earnings declined during much of the last quarter of the 20th century. That advance appears to have ended in the mid-1990s. Census data from 1950 through 2000 show the ratio of women's to men's earnings to have hit bottom in 1969 and 1979 at 56 percent (the higher the ratio, the smaller the gender gap). In 1989, the ratio jumped to 66 percent, and it continued to improve to 71 percent in 1999. (Because the census collects data about last year's earnings, the 2000 Census yields estimates for 1999 earnings, the 1990 Census for 1989 earnings, etc.) More detailed annual data from the Current Population Survey (see Figure 5) suggest that the increase in the 1990s occurred entirely in the first half of that decade. Since the mid-1990s, there has been little improvement in the gender earnings ratio.

Changes in men's earnings are more closely correlated with changes in the gender ratio than are changes

*Figure 6*

**MEDIAN ANNUAL EARNINGS FOR U.S. MEN AND WOMEN, 1961–2001**

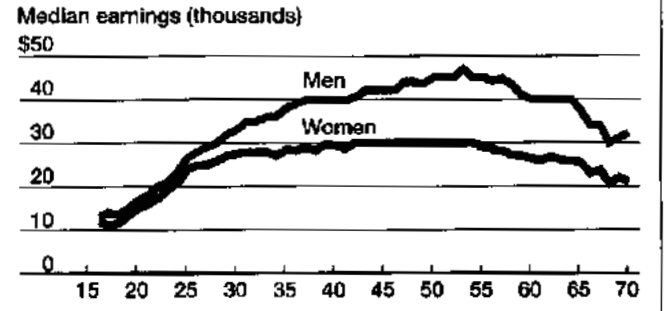



Note: Earnings calculated for men and women, ages 25–54, employed full-time/year-round.

Source: U.S. Census Bureau, Current Population Surveys, March Supplement, 1961–2001.

*Figure 7*

**MEDIAN ANNUAL EARNINGS FOR U.S. MEN AND WOMEN BY AGE, 1999**




Note: Earnings calculated for men and women employed full-time/year-round.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

in women's earnings (see Figure 6). Women's average earnings have increased steadily since the 1960s. Men's average earnings, on the other hand, increased in the 1960s through the early 1970s, but then plateaued and even declined somewhat until the mid-1990s. In the mid-1990s, men's earnings again began to increase after two decades of stagnation. Thus, over the last 40 years, when men's earnings have risen, the gender earnings gap has held constant or even grown. But when men's earnings have stagnated or declined, the gender earnings gap has closed. Times of progress in gender equality have come mainly when men's earnings have stagnated.

## Earnings by Age, Period, and Cohort

It is not simple to determine how much of the change in the earnings ratio can be ascribed to period effects that all workers experienced and how much to cohort-replacement effects. Unlike occupational integration, which was clearly a period effect that happened among all workers with few age or cohort differences, changes in the earnings ratio reflect each of the possible patterns of age, cohort, and period effects—and none of these patterns are simple linear trends. We begin with the age patterns, which are especially strong for the earnings gap.

### Census 2000 Findings

The gender difference in earnings is dramatically larger among older workers than among younger workers (see Figure 7). In 1999, the average 25-year-old woman earned 90 percent of what the average 25-year-old man earned. But 55-year-old women earned only 65 percent of what 55-year-old men earned. In what are usually the post-retirement years, the gender difference diminishes somewhat.

However, the growing gender gap in 1999 between 16-year-olds and those in their late 50s does not mean that the gender gap increases over people's careers. When the same individuals are studied over time, the gender earnings gap between the average woman and the average man is quite stable across their work lives. Women earn less than men throughout their careers, but the disadvantage for the average woman doesn't change much after working many years. The age differences in Figure 7 occur for two other reasons: a cohort effect and an out-of-labor-force effect. First, the older workers in 1999 were born before the end of World War II; gender gaps for this generation have been higher than for any generation before or after. Second, women interrupt their careers for child care and family responsibilities more often than men do. This time out of the labor force puts older women at a disadvantage when they return to work. By age 55, the typical woman has accumulated fewer years of work experience than a man. If we compare men and women with the same years of work experience (something we cannot do with census data), the earnings difference between the average man and the average woman remains fairly constant over their work lives.

Although career earnings trajectories are quite similar for the average man and woman, these trajectories do diverge among higher earners. Men's chances of getting into the top fifth of earners increase faster than women's over time. Some women do reach that level later in their careers, but their rates of advancement into these top levels are slower than men's. As a result, the gender gap in earnings at the 80th percentile is higher than at the median, and that gap grows larger with more years in the labor force. The difference between career trajectories

*Box 2*

## GLASS CEILINGS

In a 1986 *Wall Street Journal* article on women in the work force, Carol Hymowitz and Timothy Schellhardt coined the term "glass ceiling" to describe the experience of female executives who seemed unable to reach the highest levels of corporate success.

Since that time, a large number of reports have addressed the problem. The Federal Glass Ceiling Commission, founded in 1991, defined the glass ceiling as the "unseen, yet unbreachable barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements."[1] Typical signs of a glass ceiling are the lack of women on corporate boards of directors, the relative absence of women as CEOs or presidents of large companies, and the scarcity of women at the top of government and education institutions. For instance, a report from the Catalyst organization showed that, in 2003, women held just 13.6 percent of the nearly 6,000 seats on Fortune 500 boards.[2]

Though useful, the idea of a glass ceiling has been increasingly used to describe so broad a variety of circumstances that it has become difficult to discern a difference between a glass ceiling and a generic form of gender inequality. In addition, scholars have generated a series of related metaphors, including "glass escalators" (to denote men's rapid upward mobility in female occupations); "sticky floors" (to point out the way that women and minorities often were relegated to the lowest rungs on corporate ladders); "glass walls" (to describe the way that women and minorities were relegated to certain departments like human resources or public relations); and even "concrete ceilings" (to emphasize the near total absence of women of color from positions in corporate governance).

We developed four criteria to distinguish glass ceilings from other forms of gender or racial inequality. A glass-ceiling inequality represents:

- A gender or racial difference not explained by other job-relevant characteristics of the employee;
- A gender or racial difference greater at higher levels of an outcome than at lower levels;
- A gender or racial inequality in the chances of advancement into higher levels, not merely the proportions currently at those higher levels; and
- A gender or racial inequality that increases over the course of a person's career.

Results of studies using these criteria to analyze individual work histories suggested that there are glass ceilings for women, and that for minority women, the glass ceiling falls quite low with respect to both earnings and advancement to managerial status.[3] At high earnings levels, defined in this research as chances of reaching white men's 75th percentile in earnings, the gap between white men's and white women's chances grows larger over time. By definition, 25 percent of white men are at this level at any given point in time, but only 10 percent are at it at the beginning of their careers, and 30 percent are at it at the end of their careers. For white women, fewer start at this high level of earnings, and the rate at which they attain high earnings is much slower than white men's, so the gap between white women and white men grows over the course of their careers. This gap grows only at the higher level of earnings, not at moderate or low levels. African American women see no increase in their chances of attaining high earnings, and their gap compared with white men grows substantially over their careers.

Both findings suggest a glass ceiling in earnings for women. In contrast, there is less evidence of such a glass ceiling for African American men. While African American men are less likely than white men to achieve each of the earnings benchmarks, the gap does not grow larger later in their careers, nor is it especially stronger at high earnings levels than at low earnings levels. In contrast, the research on advancement to managerial status shows that, relative to white men, chances for advancement among white women, black women, and black men gradually diminish, even among the youngest cohorts of college-educated workers.


**References**

1. Federal Glass Ceiling Commission, *Solid Investment: Making Full Use of the Nation's Human Capital* (Washington, DC: U.S. Department of Labor, 1995): 4.

2. Catalyst Inc., *2003 Catalyst Census of Women Board Directors*, accessed at http://catalystwomen.org/research/censuses.htm#2003wbd, on Sept. 7, 2004.

3. David A. Cotter et al., "The Glass Ceiling Effect," *Social Forces* 80, no. 2 (2001): 655–81; and David J. Maume, "Is the Glass Ceiling a Unique Form of Inequality? Evidence from a Random-Effects Model of Managerial Attainment," *Work and Occupations* 31, no. 2 (2004): 250–74.


at the average and among top earners suggests a "glass ceiling" for women: Women are at more of a disadvantage at the top of the earnings distribution than in the middle; and as their careers develop, their rate of advancement into the top category of earners falls behind men's (see Box 2).

### Long-Term Trends

The earnings gap decreased between the mid-1970s and the mid-1990s partly because of changes that happened to all cohorts and, to a lesser extent, because of newer, more gender-equal cohorts replacing older, less-equal cohorts. Women fall further behind men through middle age and then catch up slightly nearing and after retirement ages (see Table 9). For instance, women born between 1935 and 1944 began their work lives earning 86 percent of what men earned, but that earning power fell to just 50 percent by the middle of the work lives of these women, and then rebounded to 65 percent when they were between 55 and 64. This age pattern is com-

mon to most cohorts, with some variations resulting primarily from period effects discussed below.

There are, at best, weak cohort differences. On the left side of Table 9, most columns show the lowest ratios in the middle cohorts. The two cohorts of 1925–to–1934 and 1935–to–1944 have particularly low gender ratios in their middle years, with both the cohorts that came before and after having more equal earnings ratios. But in their later years, these cohorts no longer look so unequal—primarily because that time frame is when the period effect of the 1980s catches up with them. Moreover, the low point in each column is not fixed on the same cohort but tends to move up diagonally with each decade of age, reflecting a period effect: the low point reached in the 1980 Census.

The stronger period effects are more evident in the right side. Most of the cohorts showed declining gender ratios from 1950 through 1980. In fact, the 1950 starting point looks surprisingly equal in this table. Only in 1990 had most of the ratios turned upward. Each of the cohorts between 1915 and 1944 became more equal during the 1980s. The two cohorts that followed (the baby boomers) did not experience the same equalizing trend—but for baby boomers, the 1980s were the early parts of their work lives, when gender earnings ratios typically decline rapidly. The 1980s' gender benefit for the boomers was that their early career declines were relatively modest.

Thus, the interesting result from these analyses is the strength of the period effect of the 1980s that brought rising equality to all cohorts in similar measure. Cohort differences are not especially consistent over the five decades, although the curved age effect is common to all groups.

## Earnings by Race and Ethnicity

Gender gaps in earnings vary across racial and ethnic groups somewhat more than does occupational segregation. Again, gender inequality is somewhat stronger among whites. The earnings of white women were just 70 percent of white men. Women's earnings were several percentage points closer to men's earnings among African Americans (83 percent) and Hispanics (84 percent) (see Table 10, page 124). Although black and Hispanic women earned less than white women, black and Hispanic men were even further behind white men, so gender differences are smaller. The gender earnings ratios of Asian Americans, American Indians, and Pacific Islanders are also larger than that of whites, although there are substantial differences among Asian groups as there are for occupational segregation and labor force participation.

The gender inequality trends from 1950 to 2000 for earnings were shared across most racial and ethnic groups. The gender earnings gap widened during the 1950s and 1960s, peaked or leveled off in the 1970s, and decreased in the 1980s and 1990s. The one exception was African Americans: Their gender earnings gap decreased substantially during the 1960s and 1970s, a period of little change or increased gaps for other racial and ethnic groups. Average earnings for African American women increased especially fast in the 1960s and 1970s as many women shifted from domestic service to higher-paying jobs that were newly open to them. As a result, by 1980, earnings by gender for African Americans had shifted from the most unequal of all racial and ethnic groups to the most equal. Equality continued in the 1980s and at a slightly reduced rate in the 1990s for African Americans.

*Table 9*

**RATIO OF WOMEN'S EARNINGS AS PERCENT OF MEN'S EARNINGS BY BIRTH COHORT, AGE, AND CENSUS YEAR, 1950–2000**

| | Birth cohort by age | | | | | |
|---|---|---|---|---|---|---|
| Birth cohort | 16–24 | 25–34 | 35–44 | 45–54 | 55–64 | 65–74 |
| 1885–1894 | | | | | 61 | 58 |
| 1895–1904 | | | | 65 | 60 | 67 |
| 1905–1914 | | | 65 | 58 | 60 | 63 |
| 1915–1924 | | 70 | 56 | 56 | 55 | 67 |
| 1925–1934 | 90 | 64 | 53 | 50 | 59 | 71 |
| 1935–1944 | 86 | 60 | 50 | 58 | 65 | |
| 1945–1954 | 78 | 65 | 63 | 67 | | |
| 1955–1964 | 80 | 76 | 73 | | | |
| 1965–1974 | 90 | 81 | | | | |
| 1975–1984 | 88 | | | | | |

| | Birth cohort by census year | | | | | |
|---|---|---|---|---|---|---|
| 1950 | 1960 | 1970 | 1980 | 1990 | 2000 |
| 61 | 58 | | | | |
| 65 | 60 | 67 | | | |
| 65 | 58 | 60 | 63 | | |
| 70 | 56 | 56 | 55 | 67 | |
| 90 | 64 | 53 | 50 | 59 | 71 |
| | 86 | 60 | 50 | 58 | 65 |
| | | 78 | 65 | 63 | 67 |
| | | | 80 | 76 | 73 |
| | | | | 90 | 81 |
| | | | | | 88 |

Note: Median earnings calculated for men and women ages 16–84, working full-time/year-round. Shaded cells are from the 2000 Census. Outlined cells are for prime working ages 25–54.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Table 10*

**MEDIAN EARNINGS FOR U.S. WOMEN AND MEN BY RACE AND ETHNICITY, 1999**

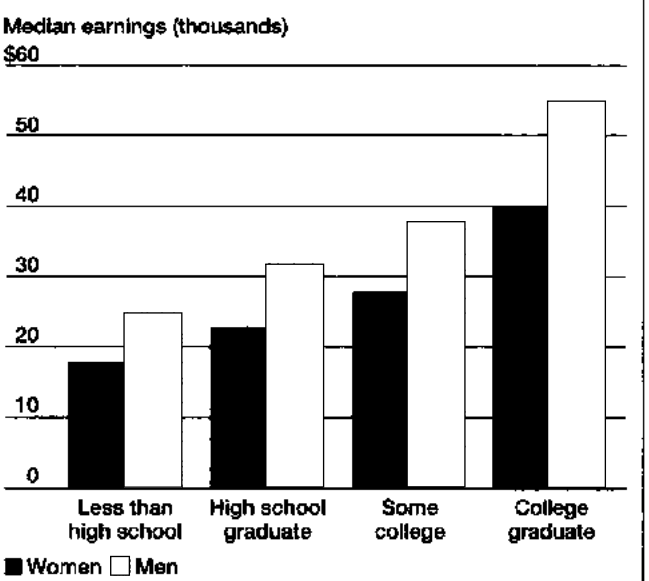
| Race/ethnicity | Women | Men | Women's earnings as % of men's: Same race/ ethnicity | Women's earnings as % of men's: White men |
|---|---|---|---|---|
| White (only) | $28,000 | $40,000 | 70 | 70 |
| African American | $25,000 | $30,000 | 83 | 63 |
| Hispanic (any) | $21,000 | $25,000 | 84 | 53 |
| Mexican | $20,000 | $23,900 | 84 | 50 |
| Puerto Rican | $25,000 | $30,000 | 83 | 63 |
| Central American | $18,000 | $22,500 | 80 | 45 |
| South American | $24,000 | $30,000 | 80 | 60 |
| Cuban | $26,000 | $31,000 | 84 | 65 |
| Dominican | $20,000 | $24,700 | 81 | 50 |
| Asian (any) | $30,000 | $40,000 | 75 | 75 |
| Chinese | $34,000 | $43,000 | 79 | 85 |
| South Asian | $30,300 | $35,000 | 87 | 76 |
| Filipina | $32,300 | $50,000 | 65 | 81 |
| Southeast Asian | $23,100 | $30,000 | 77 | 58 |
| Korean | $35,000 | $48,500 | 72 | 88 |
| Japanese | $27,700 | $38,000 | 73 | 69 |
| American Indian | $24,000 | $30,000 | 80 | 60 |
| Pacific Islander | $25,000 | $30,000 | 83 | 63 |

Note: Earnings calculated for men and women ages 25–54, employed full-time/year-round.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

*Figure 8*

**MEDIAN ANNUAL EARNINGS OF U.S. WOMEN AND MEN BY EDUCATION, 1999**




Note: Earnings calculated for men and women, ages 25–54, employed full-time/year-round.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

## Earnings by Education

The gender earnings ratio is quite uniform across education levels. High school dropouts have almost as large a gender ratio (72 percent) as college graduates (73 percent). Although more education means higher earnings for both women and men, more education makes almost no difference for the size of the gender ratio across education groups (see Figure 8). Moreover, the increase in the gender ratio over the last 25 years is quite similar at each level of education.

Unlike occupational integration, which has been primarily a middle-class trend, gender earnings equality improved among all levels of education. And the trends within education levels have followed an inverted U-shaped pattern similar to those for racial and ethnic groups. The gender earnings gap among college graduates was its largest in 1960, while for high school dropouts, high school graduates, and those with some college, the gender gap reached its highest point in the 1970s. There is some evidence that gender differences by education have narrowed since 1970, with the largest declines happening in the 1980s. Since 1950, the gender earnings gap has been smaller among college graduates than among high school graduates; that difference became negligible by 1999. Annual CPS data document the same convergence.

## Earnings by Occupational Segregation

The segregation of women into female-dominated occupations has long been thought to be a principal cause of the gender earnings gap. Female-dominated occupations pay less, the argument goes, regardless of whether men or women work in those occupations. But because women more often work in these predominantly female occupations, they earn less on average. The association between occupation and earnings suggests two resolutions. If female occupations paid what male occupations paid, or if occupational segregation could be eliminated so that there were no predominantly female occupations, much of the gender earnings gap would be eliminated.

As in earlier decades, in 2000 women's occupations garnered lower earnings than men's. And regardless of occupation, men earned more than women. Median earnings for workers in men's occupations (30 percent female or less) averaged $38,240, while in mixed occupations (31 percent to 69 percent female) these earnings were slightly higher ($39,178). Across women's occupations (at least 70 percent female), the average was substantially lower ($27,219). But even within the same

*Table 11*

**WOMEN'S AND MEN'S MEDIAN ANNUAL EARNINGS IN SELECTED OCCUPATIONS, 1999**

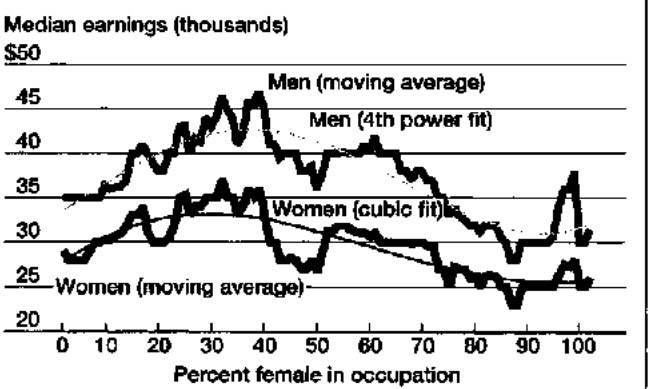
| Earnings in 1999 | Women | Men | Gender ratio (%) |
|---|---|---|---|
| **Male occupations** | | | |
| Electricians | $33,000 | $39,100 | 84 |
| Firefighters | $40,000 | $47,000 | 85 |
| Airplane pilots | $44,000 | $59,000 | 75 |
| Truck drivers | $23,000 | $32,400 | 71 |
| Electrical engineers | $54,000 | $64,000 | 84 |
| Clergy | $29,000 | $32,000 | 91 |
| Police | $40,000 | $45,600 | 88 |
| Architects | $40,100 | $52,000 | 77 |
| **Mixed occupations** | | | |
| Physicians | $86,000 | $134,000 | 64 |
| Lawyers | $65,000 | $88,000 | 74 |
| Mail carriers | $36,700 | $40,000 | 92 |
| Managers | $36,000 | $51,000 | 71 |
| Real estate agents | $35,000 | $50,000 | 70 |
| Bartenders | $16,000 | $22,000 | 73 |
| Bus drivers | $21,000 | $32,000 | 66 |
| Accountants and bookkeepers | $36,000 | $51,000 | 71 |
| **Female occupations** | | | |
| Bill collectors | $25,700 | $30,000 | 86 |
| Medical and dental technicians | $30,000 | $35,000 | 86 |
| Teachers | $33,000 | $40,300 | 82 |
| Waiters and waitresses | $15,200 | $21,000 | 72 |
| Librarians | $35,000 | $38,000 | 92 |
| Nurses (professional) | $42,000 | $45,000 | 93 |
| Bank tellers | $19,000 | $22,000 | 86 |
| Secretaries and typists | $26,000 | $32,000 | 81 |

Note: Earnings calculated for men and women, ages 25–54, employed full-time/year-round.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Figure 9*

**MEDIAN ANNUAL EARNINGS BY PERCENT FEMALE IN OCCUPATION, 1999**




Note: The two lines indicating "4th power fit" and "cubic fit" represent attempts to fit a line that comes closest to all the points in the series. The relationship between earnings and occupational sex composition has often been assumed to be a straight line: the higher the percent female, the lower the earnings. However, as this figure shows, the pattern is not linear and is best described by the "wavy" lines created by fitting a more complex equation. The best-fitting curve for women included three coefficients, and for men, four. Earnings are highest among occupations predominantly (but not entirely) male, and lowest among those predominantly (but not entirely) female. Earnings calculated for men and women, ages 25–54, employed full-time/year-round.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

occupations, men earned more than women. An examination of the selected occupations presented in Table 11 shows that even where earnings were closest (nurses, librarians, mail carriers, and clergy), women earned less than men. For example, the average male nurse working full-time/year-round earned $45,000, while his female counterpart earned $42,000. But there are also occupations where the differences are quite large (physicians and bus drivers), and these examples span the spectrum of occupations both in terms of gender composition and social class. So, the typical male physician earned $134,000, while the typical female physician's earnings were $86,000. Among male bus drivers, the median earnings were $32,000, compared with women's $21,000.

In fact, the connection between occupational gender segregation and the earnings gap is more complex than usually thought. Figure 9 shows median annual earnings for occupations along the full range of occupational gender composition. Although female-dominant occupations generally pay less than male-dominant occupations, there are two important exceptions. First, the most male-dominated occupations pay less than those occupations that are partially integrated. Second, the most female-dominated occupations pay at least as well if not better than those occupations with more men. These exceptions at the two ends of the gender composition scale mean that the relationship between the gender segregation of occupations and their earnings cannot be summarized by a straight line. This nonlinearity is not well recognized in the extensive research literature on occupational gender segregation and earnings. Some of the nonlinearity can be explained by other factors such as education, but even after extensive statistical controls for the personal characteristics of workers, the nonlinear shape of the relationship remains, although somewhat attenuated (results not shown).

The nonlinearity is not a new phenomenon; each census since 1950 shows a similar curve. Over this last half-century, both the maximum and the minimum median incomes have moved slightly to the right, toward the female end of the gender composition scale, but the general shape of the curve has not changed substantially.

*Box 3*

## Spatial Variation in Gender Inequality

The places where we live are quite varied, and one of the ways in which those places vary is in their level of gender inequality. That variation can sometimes be as great or greater than the differences in gender inequality observed over time. For instance, women's labor force participation rates range from a low of 66 percent in Los Angeles to a high of 83 percent in Minneapolis-St. Paul, more than the total change in this ratio seen in the 1970s. The ratio of women's earnings to men's earnings ranges from a low of 64 percent in Detroit to a high of 77 percent in Sacramento, Calif., as much as the change from 1977 to 2000. These variations are, in fact, smaller than the total variations across places, in part because smaller metropolitan areas have greater variation (especially higher levels of gender inequality), although there are few substantial differences in gender inequality between metropolitan and nonmetropolitan areas.[1]

Attention to spatial variation is important because most Americans work in local rather than national labor markets. We tend to look for jobs within occupations in particular cities or regions. Thus, some of us may be working in places with labor markets in which men and women are more equal, or in labor markets with less equality. The underlying dynamics of these differences across places are not limited to gender inequality, and their origins and interrelationships are the subject of recent research.[2] Some of the variation can be traced to compositional differences in the populations of these places—we would expect lower levels of labor force participation in areas with concentrations of people less likely to be in the labor force. For example, the larger Hispanic population in Los Angeles relative to Minneapolis may account for some of the difference in women's labor force participation. But part of the explanation may also involve differences in occupational or industrial compositions. For example, in Texas, Austin's high tech and government employment may be more "female friendly" than Houston's energy industry.

Some of the spatial variations may be cultural—norms about appropriate male and female roles may vary across different parts of the country. In any case, it is notable that conditions are far from uniform across the United States.


**References**

1. David A. Cotter et al., "Nonmetropolitan and Metropolitan Gender Inequality," *Rural Sociology* 61, no. 2 (1996): 272–88.

2. David A. Cotter, Joan M. Hermsen, and Reeve Vanneman, "Systems of Gender, Race, and Class Inequality: Multilevel Analyses," *Social Forces* 78, no. 2 (1999): 433–60; and Leslie McCall, *Complex Inequality: Gender, Class and Race in the New Economy* (New York: Routledge, 2001).


**Gender Inequality Across 25 Largest Metropolitan Areas, 2000**

| Metropolitan area | Women's labor force participation (%) | Occupational segregation | Gender earnings ratio (%) |
|---|---|---|---|
| Minneapolis-St. Paul, MN-WI | 83 | 0.44 | 71 |
| Orlando, FL | 79 | 0.46 | 68 |
| Kansas City, MO-KS | 79 | 0.46 | 70 |
| Milwaukee-Racine, WI | 79 | 0.48 | 68 |
| Washington-Baltimore, DC-MD-VA-WV | 78 | 0.42 | 74 |
| Indianapolis, IN | 78 | 0.46 | 69 |
| Boston-Worcester-Lawrence, MA-NH-ME-CT | 77 | 0.44 | 71 |
| St. Louis, MO-IL | 77 | 0.50 | 67 |
| Seattle-Tacoma-Bremerton, WA | 76 | 0.43 | 70 |
| Cleveland-Akron, OH | 76 | 0.49 | 66 |
| Portland-Salem, OR-WA | 76 | 0.46 | 72 |
| Philadelphia-Wilmington-Atlantic City, PA-NJ | 75 | 0.48 | 70 |
| Atlanta, GA | 75 | 0.46 | 70 |
| Tampa-St. Petersburg-Clearwater, FL | 75 | 0.47 | 72 |
| San Francisco-Oakland-San Jose, CA | 74 | 0.42 | 71 |
| Miami-Fort Lauderdale, FL | 74 | 0.47 | 71 |
| Chicago-Gary-Kenosha, IL-IN-WI | 73 | 0.47 | 67 |
| Sacramento-Yolo, CA | 73 | 0.45 | 77 |
| Dallas-Fort Worth, TX | 72 | 0.47 | 69 |
| Detroit-Ann Arbor-Flint, MI | 72 | 0.49 | 64 |
| Phoenix-Mesa, AZ | 71 | 0.47 | 71 |
| San Diego, CA | 71 | 0.45 | 72 |
| New York-Northern New Jersey-Long Island | 70 | 0.47 | 70 |
| Houston-Galveston-Brazoria, TX | 68 | 0.51 | 66 |
| Los Angeles-Riverside-Orange Co., CA | 66 | 0.45 | 75 |

Note: All statistics based on population ages 25–54. Earnings ratios calculated for people employed full-time/year-round.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

A substantial gender earnings gap remains even at similar levels of the gender composition of occupations (see Figure 9). Men earn more than women even within the same occupation. This disparity is true among all occupations—those that are predominately male, predominately female, and integrated. For example, as shown in Table 11, the average female electrician earned $33,000 in 1999, while the average male electrician earned $39,100. Similarly, the average female secretary earned $26,000, while her male counterpart earned $32,000. The gap persists even among integrated occupations where, for example, the typical female lawyer earned $65,000 and the typical male lawyer earned $88,000.

But the fact that most men hold jobs on the left (high earnings) side of Figure 9 while most women hold jobs on the right (low earnings) side must explain some of the overall gender earnings gap. How much is due to this gender segregation of occupations? The nonlinearity of the gender segregation/earnings relationship creates difficulties for answering this question. Most prior research has evaluated this question using a linear approximation to the occupation-earnings relationship. The nonlinear shape of the relationship renders any such estimate suspect. Instead, we can use women's average earnings within each detailed occupation to estimate what would be the mean earnings of women if women had the same occupational distribution as men. If women worked in the same set of occupations as men, their mean earnings would increase from $34,471 to $37,877; this would be 75 percent of men's mean earnings ($50,541) instead of the actual 68 percent. By these calculations, occupational segregation explains about 21 percent of the overall earnings gap. (A more realistic experiment of changing both men's and women's occupational distributions to match the overall occupational distribution reduces men's predicted earnings and raises women's predicted earnings to yield an expected earnings ratio of 74 percent—a gender gap about 18 percent smaller than the actual observed gap.) Thus, although most of the gender earnings gap occurs within occupations, about a fifth is directly attributable to gender segregation (see Box 3).

# Causes and Consequences of Changing Inequality at Work

Thus far, we have outlined a series of changes over time following the general pattern of increasing equality between men and women, with particularly dramatic changes in the 1960s, 1970s, and 1980s and less dramatic ones in the 1950s and 1990s. Each of the three major facets of gender and work had a series of potential explanations. This section provides an overview of the general utility of these explanations in accounting for both change over time and persisting differences regarding inequality at work. We focus on several of the most commonly cited reasons for the changes: shifts in human capital and other attributes of women and men (such as education, experience, and family status); changes in the normative climate; and changes in the political and legal environment in which men and women work. All of these changes both affect and are affected by changes in women's work status. For instance, while increasing levels of approval for women's participation in the labor market may increase employment among women, it is also true that larger numbers of working women have led to greater approval of women's employment. Three criteria apply in assessing these explanations:

- The cause has to precede the effect. Increases in women's education should come before increases in women's earnings relative to men.
- There must be an empirical correlation. As women gain more education, their average levels of earnings should increase.
- The cause and effect should not both be the product of a third causal factor. For example, legislation leading to lower levels of discrimination by both schools and employers may have caused both more education for women and more equal pay between men and women.

## Micro-Level Change

Several explanations relate to changes in women's and men's characteristics that may make these characteristics more attractive to employers, or may indicate a greater commitment to employment, or may show an increased need for women to be employed, and thus bring women the earnings associated with employment.

### Education

Among the most frequently touted explanations for an individual's economic status is education. Our education substantially determines the kind of work we do and therefore the amount of pay and prestige we can expect. Thus, analysts seeking to explain changes in women's status often look first to education. Entering a particular occupation involves at least three hurdles, as illustrated by a doctor's career: training and certification (attending medical school); acceptance by employers and co-workers (working in a hospital or private practice); and acceptance by clients or consumers (treating patients). Any one of these hurdles can block a woman's entry into a particular field. The importance of access to certification is most obvious in the professions, but it is equally true in the trades—in fact, it is true wherever the supply of practitioners is limited by stringent train-

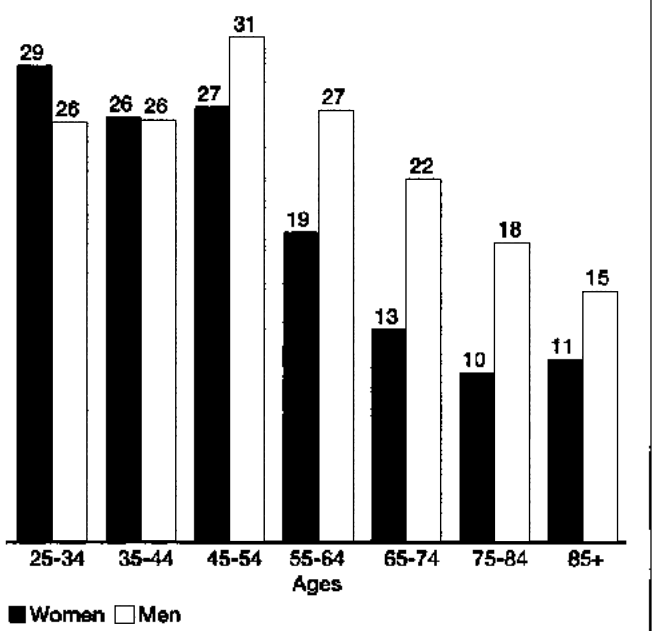
ing and licensing requirements.[6] The added benefit of certification is that relevant data are readily available. Acceptance by fellow workers and clients, on the other hand, is much more difficult to track. Being hired as a lawyer in a given firm does not guarantee equal treatment in pay, promotion, or partnership. Likewise, a woman on a carpentry crew may not be allowed to move from apprentice to journeyman, or given the same amount of overtime, or allowed to become a crew leader or site supervisor.

While the 2000 Census reveals generational patterns in gender differences in the completion of college or post-baccalaureate degrees, the gender differences across generations in completing a high school degree are quite similar. There is relatively little (if any) difference between men's and women's attainment of a high school degree. For men and women ages 45 and older, differences in the rates of high school completion are no more than 1 percentage point (favoring men). Among younger age groups, however, women hold a slight advantage: 86 percent of women ages 25 to 34 have completed high school, compared with 82 percent of their male peers. Among women ages 35 to 44, 87 percent have completed high school, while 83 percent of men ages 35 to 44 have done so. In short, since early in the 20th century, men and women have had nearly equal access to a high school education, with each subsequent generation becoming more likely to complete high school.

With regard to college, Figure 10 shows more substantial differences among older cohorts, with men being considerably more likely than women to receive a college education. This difference narrows with each subsequent cohort until women ages 35 to 44 and ages 25 to 34 begin to obtain college educations at higher rates than men. Much the same can be said about post-baccalaureate degrees: substantial differences among older cohorts that narrow (and even reverse) among the more recent cohorts. For example, among women ages 65 to 74 in 2000, only 5 percent had completed an advanced degree, while twice as many men in those ages had. Yet, nearly equal percentages of men and women ages 25 to 44 (7 percent to 9 percent) had completed an advanced degree.

While census data indicate who obtained a particular level of education, the data are much less able to specify the type or kind of education. Data from the National Center for Education Statistics (NCES) fill this gap. These data show much the same story as the census—a growing share of associate's, bachelor's, master's, doctoral, and professional degrees were granted to women between 1950 and 2000 (see Figure 11). Moreover, more than half of all degrees went to women after the late 1970s for associate's and in the early 1980s for bachelor's and master's degrees. Even in doctoral and professional degrees, women were approaching parity in 2000.

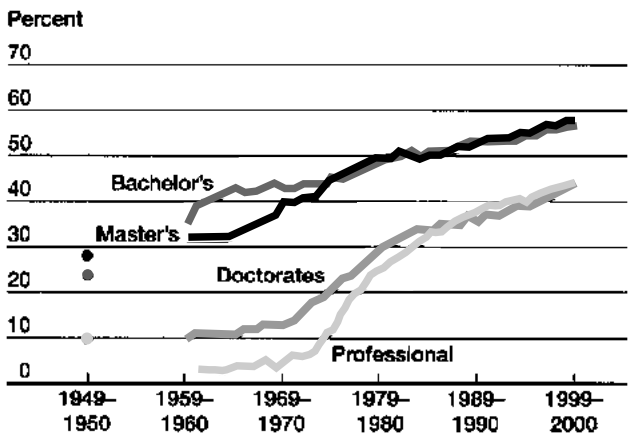
*Figure 10*
**PERCENT OF MEN AND WOMEN WHO ARE COLLEGE GRADUATES BY AGE, 2000**




Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

So, on its face, the argument that access to or investment in education accounts for the substantial and persistent differences in employment, occupation, and earnings appear flawed. However, it may be that it is not just the difference in the amount of education but also in the type or kind of education that women and men have invested in that may make the difference. Trend data from NCES show college majors by gender. Women have made considerable inroads into many, if not all, fields of study. Of particular note are agriculture and natural resources, business and management, and law and legal studies. Some fields became substantially less female (library and archival sciences, probably because of Internet technologies), and some fields remained heavily female (education, languages, and health sciences). The index of dissimilarity calculated from these data shows a substantial decline—dropping from 47.3 percent to 27.8 percent of women or men having to switch majors in order for women and men to be evenly distributed across majors. (It is notable that these overall segregation measures are lower than what is observed for occupations. Much of this decline is due to the coarser classification scheme for field of degree. However, the much larger decline—19.5 points for majors, compared with 8.8 points for occupations—may well indicate more substantial change over the period.) Much of this

*Figure 11*
**WOMEN'S SHARE OF DEGREES, 1950–2000**




Note: The data for women's share of bachelor's, master's, and doctorate degrees is for the academic year 1949–1950, and then for the years starting at 1959–1960. The data for women's share of professional degrees begins with the academic year 1960–1961.

Source: U.S. Dept. of Education, *Digest of Education Statistics* (2001): table 247.

change took place between 1971 and 1985, and a slowing of integration has been found in the subsequent period.[7]

Beyond the bachelor's degree, women's progress with regard to graduate, medical, dental, legal, and theological degrees is evident. In 1950, women made up just 10 percent of the recipients of doctoral and professional degrees. In each of the other fields, women represented less than 5 percent of the recipients. But rapid change took place in the 1970s and 1980s; by 2000, women were receiving more than 40 percent of all medical, dental, legal, and academic degrees. As with entry into occupations, however, the pace of change slowed in the 1990s, marking the smallest percentage-point gains for all fields since the 1960s. For these occupations, then, the first hurdle to access may have been passed: Women in large numbers have obtained the formal education credentials that should provide entrée into these types of work. Moreover, as cohorts of medical, dental, and law students move forward, their occupations will continue to become more balanced (unless women's dropout rates increase).

The trends reviewed above generally fit together—as women's educational attainment increased, their labor force participation increased, their access to occupations increased, and their earnings relative to men's increased. But closer examination reveals that this is only part of the story. Women's labor force participation shows similar increases within each level of education, so the growth of the share of the highest-educated who are most likely to work can account for some but not all of the increase in women's labor force participation. Similarly, gender earnings gaps have narrowed mostly within levels of education, so women's increased educational attainment is not primarily responsible for the narrowing of the earnings gap. Moreover, women's levels of education have increased relative to men's throughout the last half-century, even before the earnings gap began to close in the 1970s and after it stopped closing in the mid-1990s.

### Experience

Along with education, experience is one of the primary characteristics that make employees valuable to employers. In part, this is because much of the skill required to do a particular job is gained by having done that job. The experienced plumber (or surgeon) has encountered the same or similar situation, and knows how to respond. The novice, on the other hand, may have sufficient knowledge and information about how to handle the problem, but may take longer or do an inferior job. Thus, differences in experience are often responsible for differences in men's and women's pay, and contribute to differences in occupation and even labor force participation. Being in the labor force longer makes individuals less likely to drop out (and not dropping out, of course, increases their time in the labor force). Longer time in the labor force also opens access to occupations, particularly through promotion based on tenure and experience.

Scholars wishing to assess changes in experience must rely on longitudinal data, which follow individuals over time. Complicating matters, those who wish to assess changes in experience must use data that track different generations over time. While several such sources exist, few studies assess these changes. One suggests that, between 1979 and 1988, the gender difference in full-time experience dropped from 7.5 years to 4.6 years. This substantial decline was associated with approximately one-third of the decline in the gender gap in earnings.[8] Some evidence also ties changes in work experience to changes in labor force attachment. Unfortunately, more contemporary estimates of changes in experience and their effects are not yet available.

### Second Incomes

One commonsense answer to the question of why women are more likely to be working today than in the past is that their earnings are more necessary to support a family. This possibility rings true for many women, and would appear at first glance to meet the tests outlined above. There are several ways in which changes in family life may have led to changes in women's work. First, the family itself has changed. More women today are raising children alone, there are more couples without children, and more women remain single longer. The expansion in the share of single women, who have always been more likely to work, could well lead to higher overall rates of labor force activity for women. Yet it is among married

mothers that the greatest changes in employment took place, so changes in family structure cannot account for all of the increase in women's employment. Moreover, single mothers' labor force participation, which had been high, stagnated from the late 1970s to the early 1990s and increased only in the late 1990s, while overall rates of women's labor force participation leveled off or declined.

A second source of this change, then, may have to do with men's earnings. A conventional account of this dynamic goes as follows: As husbands' and fathers' incomes stagnated and declined, wives and mothers were forced into the labor force. As those husbands' and fathers' earnings rebounded in the 1990s, wives and mothers pulled back from participating in the labor force. How much of the rise and plateauing of women's labor force participation is due to changes in incomes for husbands? An important determinant of labor force participation is the extent of other family income beyond a person's own earnings. The more family income a person has without being employed, the more she or he is permitted not to work and to enjoy leisure instead (or, especially for parents, to devote more time to unpaid work at home). In the 1990s, men's median earnings increased for the first time in decades; so for the first time in a long while, married mothers' opportunities to stay home increased. In an analysis not shown here, women's labor force participation rates still plateaued during the 1990s even after controls for other income, although the trend is attenuated. Thus, while changes in men's earnings may account for some of the changes in women's labor force participation, it is clear that most of the changes come from other sources.

## Macro-Level Changes

The three issues addressed above relate to how changes in individuals' characteristics may have led to the increases in equality seen in the 1960s, 1970s, and 1980s, and why these same changes may have led to the stalling of these increases seen in the 1990s. Changes in social structural conditions are also thought to have contributed to improvements in equality.

### Economic Structure

In many ways, the Industrial Revolution can be thought of as a source of contemporary forms of work-related gender inequality. When most of the population was engaged in agriculture, there was less differentiation in the type of work men and women did, and less distinction between those who were in or out of the labor force. Some scholars have suggested that, as the demand for traditional women's labor declined in industrial societies, so did women's status, but that as demand has increased with the emergence of service-sector employment, so has women's status.[9] In identifying a demand for female labor as central to explaining gender stratification, these theorists make three assumptions: there is a gender segregation of tasks in society that specifies some tasks as performed exclusively or generally by women; the importance of these female tasks varies over time and across societies in association with other factors such as technology; and this variation determines the relative autonomy or subordination of women across a wide range of political, economic, demographic, and ideological outcomes. Empirical assessments of this theory show some support for the effect of the demand for female labor, particularly on labor market outcomes and education, but less so on family, politics, or normative structures.[10] It is unclear at this point whether changes in occupational structure may have been related to diminished progress toward gender equality in the 1990s.

### Technology

Along with inducing changes in the occupational structure, technological change may have had other effects on women's status. One way in which this may have happened is through the introduction of many labor-saving devices that may have reduced the amount of work and time required to maintain a home, thus freeing up women for employment outside the home. The research on such developments suggests that, while technology may have reduced some kinds of domestic work, it actually has increased other kinds.[11] Other technological developments, such as changes in reproductive technology, have had clearer effects. Women's increasing ability to control whether and when they have children has undoubtedly affected their presence in the labor force and likely their access to occupations and even their relative pay.[12] Control over fertility also may be the ultimate labor-saving device, as increasing numbers of children in the household have a strong negative effect on both labor force participation and pay for women who are employed.

### Politics and Policy

Another set of potential explanations for changes in women's status in the world of employment is political. We offer a brief overview of three such explanations: women's access to political office; public policy oriented toward gender equality at work; and litigation that has challenged (or supported) workplace inequality. For convenience, we focus on the federal level, but many states and localities have similar policies aimed at lessening workplace inequality. At the beginning of the 1950s, many employers had explicit rules regarding appropriate jobs and pay for women. These rules included formal and informal restrictions on jobs; separate male and female sections in employment ads; differential pay scales for men and women in the same jobs within firms; pay scales set in accordance with the gender composition of jobs; and "marriage bars," which banned employment of mar-

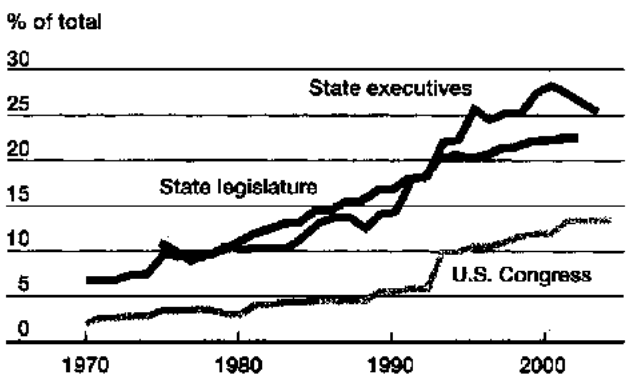
ried, let alone pregnant, women. (In fact, to avoid dismissal in the middle of the school year, the grandmother of one of this report's authors did not inform the school district where she taught that she'd gotten married.) Such rules were legal and binding into the 1960s; thereafter, informal rules served to limit women's pay and positions.

### Officeholding

The political representation of women by women may have consequences for gender equality. Female elected officials may pursue with a more concerted effort than do their male peers legislation and public policies that address the unequal status of women in American society. This increased attention to women's issues may in turn contribute to normative changes in the larger society.

Although ideal for some issues, the census is a fairly poor source for information about women's presence and progress in the political arena. (The 2000 Census identified 15,406 people as legislators; 5,461, or 35 percent of them, are women. In the 1990 Census, 42 percent of the 12,716 legislators were women.) But even a casual observer knows that there are many more women in prominent political offices today than in the 1950s or 1960s. Before the 1980s, few women held political office, though many were involved in politics either as volunteers or as advisers to and supporters of their husbands' careers. Moreover, many of the women who held office prior to the 1970s did so by the so-called "widows model," assuming seats vacated by the death of husbands or (less frequently) fathers.[13] The late 1980s and 1990s marked women's entry into high-level elected office at both the state and national level. The proportion of female U.S. House members rose from 5 percent in 1987 to nearly 14 percent in 2003, while the Senate went from being 2 percent female to 13 percent (see Figure 12). In the states, women now hold 25 percent of elected executive offices, which include everything from governor and lieutenant governor (the most common office for women) to secretary of state, attorney general, education commissioner, and chief agricultural officer. Nonetheless, the 1990s did see a leveling off of women's officeholding at the state level. A possible consequence of this plateauing is that fewer women will hold office at the national level; holding a state-level political office is a pipeline to national office. Thus, while women's increased presence in politics marks progress, as does their increased access to many powerful and traditionally male occupations, this increase likely does not explain improvements in women's economic position because it occurred with economic progress rather than preceding it.

*Figure 12*
**WOMEN'S SHARE OF ELECTED AND APPOINTED PUBLIC OFFICIALS, 1970–2004**




Note: Data for state legislatures for 1975–2002; for state executives for 1970–2003; for U.S. Congress for 1970–2004.

Source: Rutgers University, Center for American Women and Politics (www.cawp.rutgers.edu), accessed Aug. 10, 2004.

### Public Policy

The first major national legislation affecting gender inequality in the workplace—the Equal Pay Act—came in 1963. The act mandated equal pay for men and women doing the same work. Much in analyzing occupational gender inequality comes to depend on one's definition of "same." Is the term only applicable to people holding the same job titles, or also to those doing substantively similar or comparable work? Next, the Civil Rights Act of 1964, particularly Title VII, prohibited employment discrimination on the basis of race or sex. The 1972 Equal Pay Act Amendments extended the coverage of the Equal Pay Act to federal, state, and local agencies; education institutions; and employers with 15 or more employees (it had been 25 or more). In addition, the amendments expanded the Equal Employment Opportunity Commission's ability to file suit, and extended the time period in which discrimination complaints could be filed. In 1978, the Pregnancy Disability Act banned discrimination based on pregnancy or childbirth, essentially equating these physical states with any other disability that might cause a worker to be temporarily unable to work. The final piece of federal legislation, the Family and Medical Leave Act (introduced in Congress in 1985, passed in 1990, vetoed by President George H.W. Bush, and later signed by President Bill Clinton in 1996), allows an employee in a company of more than 50 workers to take up to 12 weeks of unpaid leave to care for a newborn or newly adopted child, or to care for a family member with a serious illness. Employers must allow such workers to return to their original or equivalent jobs.

Perhaps as telling in public policy efforts towards gender equality are the laws that never were. Notable among these is the Equal Rights Amendment, first introduced in 1923. It passed Congress in 1972, but was

not ratified by the required number of states and thus expired in 1982. There have also been pieces of legislation that have failed. In an empirical analysis of Congressional sponsorship of bills, three categories of work, family, and gender legislation were identified: separate spheres, equal opportunity, and work-family balance.[14] Separate-spheres legislation allows pay differences, restricts access to occupations, and provides leave for mothers but not fathers. Of 13 such bills introduced between 1945 and 1990, only three were enacted: one each in the 1940s, 1950s, and 1980s. Equal opportunity bills, which would require equal treatment in access to and rewards for positions, were both more numerous than separate-spheres legislation over the entire period (63 bills) and more successful, with 29 laws enacted. Moreover, these laws were most common in the middle period, with three enacted in the 1940s, eight in the 1950s, six in the 1960s, 11 in the 1970s, and just one in the 1980s. The third type of bill, work-family balance, seeks to make both fathers and mothers more able to care for children and fulfill other family responsibilities, through mechanisms like flexible schedules and child care. All nine bills in this category, including the two that were enacted, were introduced in the 1980s.

These laws have been paired with a set of actions from the executive branch, notably President Lyndon Johnson's 1965 Executive Order 11246, which banned discrimination on the basis of race, color, sex, or religion on the part of government employers, contractors, subcontractors, or unions, and required them to " ... take affirmative action to ensure that applicants are employed and employees are treated during employment without regard to their race, color, religion, sex, or national origin."[15] That order has led to the set of policies and procedures known collectively as affirmative action, which applies to employees of federal contractors, employees of federal agencies, employees and contractors for many state and local governments, private employers under court-ordered remediation plans, and private employers who voluntarily adopt standards and guidelines for diversifying their workplaces. In total, one-third to one-half of the labor force is thought to work in organizations that practice some form of affirmative action.[16]

### Enforcement and Litigation

A third "act" to this story is the executive enforcement and judicial interpretation of these laws. The guarantee of equality in the workplace is not effective if undermined by weak enforcement or application of the law.

At the federal level, the Equal Employment Opportunity Commission (EEOC) has primary responsibility for enforcing nondiscrimination laws. One of EEOC's major mechanisms is gathering complaints from workers and seeking to settle these complaints either through mediation or litigation. There were few such claims into the mid-1980s; but then there was a steep rise in complaints between 1985 and 1988, slower and uneven increases from the late 1980s to the early 1990s, a burst of filings from 1991 to 1995, and a leveling off thereafter. Approximately one-third of all claims to the EEOC since the mid-1980s have been gender-based claims.

Judicial interpretation of these and other laws greatly affects the process and progress of work-related gender inequality. An enormous body of case law has developed around these issues. Generally, employees who file suit against employers under any of the above-named legislation or regulations must be able to prove either disparate treatment or disparate impact based on one of the protected categories.[17] In disparate-treatment cases, the employee must prove by a preponderance of the evidence that he or she was paid less, promoted less, or not hired because of his/her sex (or race, religion, etc.). That is, the employee must prove that the employer intended to discriminate. With disparate-impact cases, the argument is that the apparently neutral policies or practices of an organization serve to disadvantage one of the protected groups. For instance, the physical strength test for firefighters gives men an advantage over women. If it can be shown that the standards or procedures for establishing qualifications (how strong a firefighter must be) are unrelated to the given job, then disparate impact has been shown. The trend in judicial interpretation has been in favor of disparate treatment rather than impact. Moreover, the pattern of case law shows a move toward a narrow interpretation of the laws.

Among the critical issues regarding the 1963 Equal Pay Act and subsequent legislation and litigation is the question of what constitutes "similar" work. This question frames the debates and litigation over "comparable worth"—that jobs similar not in content or function but in broader ways such as requisite skill and training, complexity, and conditions should have equal remuneration. Though showing some promise in the late 1970s and early 1980s, especially after the 1981 case of County of Washington v. Gunther, this legal strategy seems to have fallen out of favor with the courts after the early 1980s.[18]

### Effect of Law, Policy, and Politics

Estimating the effects of these political changes on gender inequality is neither straightforward nor easy. However, some attempts to do so have suggested that, despite inadequate enforcement and narrowing interpretations, the legislative and executive actions detailed above have had a substantial and considerable effect on reducing discrimination against women, particularly on occupational segregation and pay differences.[19] At the

same time, a number of studies find mixed effects of maternity leave policies on women's labor force participation and earnings.[20]

### Norms and Attitudes

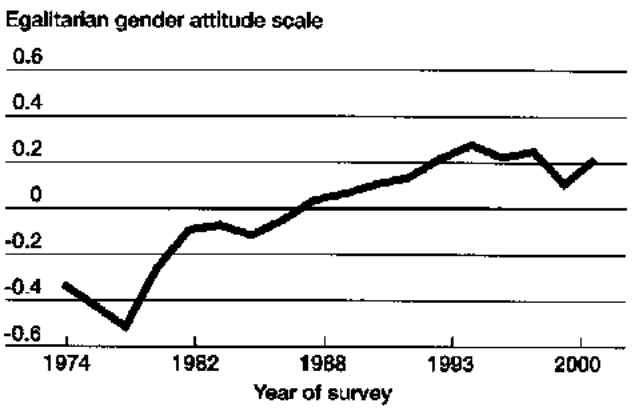
Other causes of macro-level changes are the broad cultural changes called "normative shifts," or the shared notions of what is appropriate behavior for women and men. While there is little doubt that these notions changed in the second half of the 20th century, were they primarily causes or consequences of changes in gender inequality? Public opinion did not shift toward women's equality until the 1970s. During the 1960s, when polls reported that Americans were increasingly willing to vote for a well-qualified Catholic, Jew, or African American for president, people's willingness to vote for a woman for president remained unchanged, at about half of the electorate. Public opinion seemed stuck. Only in the 1970s did attitudes begin to shift in a more egalitarian direction.[21]

Since the mid-1970s, the General Social Survey has asked a variety of questions tapping public attitudes toward gender roles. A broad scale created from responses to seven of these questions provides the most reliable indicator of the public's changing thoughts about women's political, household, and work roles.[22] Figure 13 shows the substantial shift in public opinion about gender roles from the late 1970s through the mid-1990s. But 1994 was the apogee of egalitarian thought about gender roles. After 1994, public opinion again plateaued.

Much of the egalitarian shift in public opinion from the late 1970s to the mid-1990s resulted from liberal recent cohorts replacing conservative older cohorts. This cohort-replacement effect continues even now to push public opinion toward more liberal gender roles. Thus, the overall slight conservative shift for the last decade masks a much stronger conservative shift within each cohort. Most individuals have become more conservative in the last 10 years; this trend has been offset somewhat because younger generations are far more liberal than their grandparents. But since the mid-1990s, young people have become more conservative, as has the rest of America.

The conservative trends in public opinion mirror the declining proportion of married mothers who work. It is unclear whether changing attitudes contributed to this decline or whether the changing attitudes merely reflect changes in the actual social structure induced by other causes. But the similarity in the timing is striking. In fact, the mid-1990s also marked the end of the trend toward gender equality in earnings, the stalling of the shift toward occupational integration in the 1990s, and the end of growth in the number of women in local and state elective office. The variety of changes that experienced a similar turning point suggests a broad cultural base to the changes of the last decade. The cultural explanation certainly seems more plausible than human capital or fertility explanations.

*Figure 13*
**GENDER ROLE ATTITUDES, 1974–2002**




Note: Scores are based on responses to seven gender-role attitudes questions from the General Social Survey between 1974 and 2002. Responses from the questions are standardized by their standard deviations and averaged to create an index for comparison across years. Scores above 0 represent endorsement of more "egalitarian" attitudes; those below 0 represent more "traditional" gender roles.

Source: General Social Survey, 1974–2002.

## ASSESSING AND INTERPRETING CHANGE

The scope of change in the second half of the 20th century is nothing short of incredible. At midcentury, it was expected that women would spend much of their adult lives out of the labor force; that employers would specify whether they wished to hire a man (or perhaps a woman) for a particular job; and that women would be paid less than men, even for doing the same job. In the ensuing decades, all this changed. Today, most women work outside the home, even when their children are quite young, and employer discrimination in hiring and pay has been banned. Despite these changes, as we have shown, gender inequality persists. Women remain less likely than men to be active in the labor force, more than half of all women are in jobs that are predominantly female, and they still get paid less than men, even for the same kind of work.

### General Patterns

In 2000, women were still somewhat less likely than men to be active in the labor force—74 percent of women and 86 percent of men ages 25 to 54 were in the labor force in 2000, with 46 percent of women and 68 percent of men

working full-time/year-round. While men's labor force participation has declined since the 1950s, women exhibited rapid increases in labor force participation in each decade up to the 1990s, when women's rates then showed a stagnation or retrenchment in labor force participation. These trends are even more exaggerated for married women, and especially those with children, among whom both the increase in participation and its retrenchment in the 1990s are most pronounced. On the other hand, labor force participation of single mothers increased greatly in the late 1990s after having remained stable from the late 1970s to the mid-1990s. While women have made great strides in gaining entry into previously closed areas of employment, the occupations that men and women hold remain largely segregated. The typical man works in an occupation where just over one-third of his peers are women, and the typical woman works in an occupation that is 71 percent female. The overall level of segregation today—just under half of women or men would have to change occupations to eliminate segregation—is substantially less than what was observed in the 1950s, when a shift of nearly two-thirds would have been required. Finally, the difference in earnings for men and women remains large, with women earning only 73 cents for every dollar earned by their male counterparts. But this too marks progress: The figure was 59 cents in 1950. In part, this progress is because women's inflation-adjusted earnings have increased steadily since the 1950s, while men's increased through the early 1970s and then stagnated or fell until the mid-1990s. The narrowing of the gender pay gap was a combination of women's steady progress and men's uneven advances. Broadly, gender differences remain in engagement with paid work, the type of work done, and the pay received for that work. And after having narrowed since 1950, the pace of change appears to have slowed in the last decade.

## Age, Period, and Cohort Effects

One of the consistent themes examined here is how these patterns and trends play out across age groups, and to what extent the changes we observed are attributable to episodic changes (period effects) or generational shifts (cohort effects). Patterns of labor force participation over the life course were shown to be differentiated by gender—men's remaining fairly constant through the prime years of 25 to 54, and women's dropping in the prime childbearing and childrearing years—but the degree of differentiation was shown to be declining across cohorts to the extent that it was nearly indiscernible by 1990 or 2000. Both men's and women's earnings increase with age—but because men's earnings rose faster, the gender gap grew across the life course. In addition, there were both cohort and period effects over time: Women born in later cohorts started closer to men's earnings and experienced faster growth in earnings over time, losing less ground to their male counterparts than had women of earlier cohorts. Segregation declined fairly uniformly across cohorts, indicating that the changes that took place were largely period effects: Each cohort experienced about the same amount of change decade to decade, though newer cohorts entered the labor market somewhat less segregated than the ones before them. Thus, across these three dimensions, period effects have broad impact across cohorts, but the cohort changes in gender differences accentuate these shifts.

To a large degree, the story of persistent inequality despite substantial progress holds true for women regardless of race and ethnicity. All women today have rates of labor force participation, occupational distributions, and earnings that are closer to men of the same race and to those of white men than what was the case in 1950. But no group of women has attained parity with men on all of these measures. Gender differences in earnings and labor force participation comparing men and women of color appear smaller than the differences among whites, but this narrowing is mostly due to the lower levels of earnings or labor force participation of men in minority groups. Only Asians show within-race occupational segregation notably different from the pattern observed for whites.

Education has gone a long way toward determining how individuals fare in the labor market in the United States, and increasingly so for the past half-century. Education does little, however, to explain gender inequality. Education raises levels of earnings and labor force participation for both women and men. Thus, levels of gender inequality for these two dimensions were fairly similar across levels of education. The patterns of change over time were also similar across levels of education, leading to convergence on both of these dimensions. However, occupational gender segregation did vary by education, with college graduates having been notably less segregated than those with less education.

## Explaining the 1990s

The forms, causes, and consequences of the shifts observed from the 1950s through the 1980s are by now fairly well known and well documented elsewhere. But what about the reversal of the 1990s: Is it real? Is it permanent or temporary? Is it a period or cohort effect? What caused the change? Is it significant?

### Is it Real?

That the downturn crosses the three dimensions, is reflected in some changes beyond the world of work, and appears to mirror findings in some other sources all support the notion that the reversal is real. But, as noted above, between the 1990 and 2000 censuses, there were

some changes in the wording of the question about employment, which may contribute to the lower estimates of labor force participation. Also, the changes are not uniform across all three dimensions, and have at least as much to do with men's earnings as with women's. Moreover, some indicators of gender inequality, such as education and political representation, show signs of continued progress toward equality. For the time being, a tentative answer is that the downturn is probably real.

### Permanent or Temporary? Period or Cohort Effect?

These two questions are linked. This is not to say that generational changes are permanent and historical ones temporary (or vice versa). Nor would it be realistic to think of any such change as being truly permanent. But a relatively long-term shift is different from one that lasts less than a decade. A change in response to historical events felt by all generations is different from one experienced primarily by those who are young (or old) at a given point in time. For instance, if the stagnation in women's labor force participation in the 1990s was just a response to an abnormally good economy, which allowed some women to opt out of the labor force in favor of family (a temporary period effect), then a return to work during the more economically troubled times of the last few years would be expected. But if young mothers leaving the labor force represent instead a more profound cultural shift—say, a rejection by women of this generation of the "career-then-family" or "career-and-family" model created by baby-boom women—then the change is more a permanent cohort effect.[23] Additionally, though, even if it is simply a result of good times, this pattern of career interruption may have effects that reverberate through the lives of women of that generation in terms of pay, promotions, and access to occupations. There is no way to know whether these changes have ceased or whether observers will mark the 1990s as a turning point in gender equality.

### What Caused the Change?

It is unlikely that a single factor that led to these changes could ever be identified. At the same time, this report offers some clues and tempting leads on suspects. Given that increases in both education and experience continued right through the 1990s, even at accelerated rates, it seems unlikely that human capital will account for much of the change in this period. The rebound in men's wages associated with the strong economy is a more promising, though still partial, explanation. Politics and policy also may hold some promise. Two of the major legislative efforts of the 1990s may have had profound impacts on women's employment. The first, the Family and Medical Leave Act, may have reduced women's employment by allowing families to have one worker (usually the wife or mother) leave the labor force for up to three months of unpaid leave. The other legislation, the Personal Opportunity and Work Reconciliation Act, put strict time limits on welfare receipt and mandated work requirements for single mothers. Both of these pieces of legislation may have affected women's choices about work.

### What Would a Shift Mean?

This final question may be the most difficult of all, because it hinges somewhat on the answers to the above questions. What follows are a few scenarios—all of which assume that the changes are in fact real.

**Real but relatively unimportant.** While the shifts of the 1990s may be real, they are also fairly small. A close look at some of the other trend data shows periods that, at the time, may also have looked like reversals or retrenchment. Some of the appearance of reversal may simply have to do with timing. In a few years, the apparent stagnation might look like a simple blip. Still, the growing gap in labor force participation among married and single mothers may mean that children in these two types of families will have experienced childhood quite differently.

**Temporary change driven by a good economy.** This sort of change would have short-term effects on all women and little effect on men, but would have some potentially powerful and pervasive effects on women whose careers were in their formative stages in the 1990s. These women entered the labor force with strong expectations for career attainment; and then, in the mid-1990s, they opted out in favor of family. They may well be able to opt in and seamlessly return to their careers, but more likely they will earn less, have shorter career ladders, and have limited access to high-level positions. Such a situation is true for women born between World War I and World War II, who, in comparison to cohorts before and after them, experienced higher levels of gender inequality in pay over their entire working lives. These women pressed for the Equal Pay Act of 1963 and the Civil Rights Act of 1964, and they led the women's liberation movements of the 1960s and 1970s.

**Permanent shifts due to cultural change.** By many accounts, something changed in the culture in the 1960s and 1970s that made it possible for many, even most, women to have careers. Polls showed that increasing numbers of women and men approved of a married woman earning money if her husband was capable of supporting her. But some observers suggest that something may have changed again in the late 1980s and 1990s, a "backlash" against the upheaval in work and family life.[24] While it seems improbable that the gains of the last 50 years could be erased, it is possible.

**The baby boomers were different.** In explaining the differences in the 1990s from the differences in the three earlier decades, we might be tempted to say that the baby boomers were just different. Many of the moth-

ers of the baby boomers briefly worked, often in nontraditional jobs, during World War II. Even though many of these women left the labor force for a time to raise children, their brief work experience undoubtedly had an impact on the employment hopes, desires, and expectations of baby-boom women. In addition, the new model for work and family (career then family, or career and family) significantly differentiates baby boomers from cohorts before and perhaps after them. The actions of the baby boomers led to massive changes in gender, work, and family (along with other institutions) that by now have quieted. Other generations may show patterns more similar to earlier ones or may simply replicate the patterns of the baby boomers.

**The limits of change.** A final possible scenario is that the 1990s represent neither a temporary resting place nor a turning point for change, but instead represent a new semistable balance. By the middle of the 1990s, all of the cumulative change of the 1960s, 1970s, and 1980s ended, and a new equilibrium was established. Women who chose to work did so; those who preferred to stay at home with children did so. Women who chose to enter mixed occupations did so—but some women also chose female occupations, and a few even chose male occupations. The notable emphasis on choice in the preceding sentences is important. It implies that these changes are a result of individual actions or of expressions of preferences rather than responses to constraints or to external conditions. Such "rhetoric of choice," although the dominant mode of thinking not just in social science but in society as well, has limitations and inadequacies.[25] A *New York Times Magazine* article in late 2003 relates the experiences of five women, all Princeton graduates, who chose to interrupt career for family.[26] Careful reading reveals not just choice—affirmation of childrearing as rewarding and fulfilling work—but also constraint. Each woman faced rising burdens and barriers in her career.

The scenarios we have outlined call for different responses. The next several years may tell whether the apparent retrenchment of the 1990s is real. Once that question is answered, perhaps a brighter light can then be cast about the causes of this reversal, and a more accurate set of responses to it can be prescribed.

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# Cohorts and Socioeconomic Progress

*By Dowell Myers*

## Introduction

How best can we measure socioeconomic progress across decades? Why do many of us worry that young adults are failing to match the progress of their parents, or that immigrants are failing to get ahead in America? Often, two different dimensions of progress are at play. On the one hand, people typically achieve progress in their socioeconomic status as they move through their careers. At the same time, society progresses as each generation exceeds the achievements of its predecessors. The picture is often confused by skewed averages, however, when a major shift occurs in the makeup of society because there are more young people, or more immigrants, or more minorities. How much progress are people really experiencing?

The measurement of progress is best addressed by analysis of cohorts—groups of people passing through time together—observed in this report in decades from 1960 to 2000. Defined by shared year of birth, or by year of entry to the United States, cohorts' progress is traced in two important ways: *over the lifetime*, as socioeconomic status changes with passing time; and *between cohorts*, as one cohort replaces another at each life stage.

Between 1960 and 2000, the socioeconomic status among the elderly (ages 65 to 74) increased much more rapidly than among young adults (ages 25 to 34). Where once the elderly had a poverty rate twice as high as the young, by 1990, the poverty rate among the elderly was lower than the rate among the young. The elderly's homeownership advantages over the young also increased, especially from 1980 to 2000, and the elderly's educational disadvantage relative to the young rapidly narrowed. The growing status of the elderly reflects lifelong advantages, because a status such as educational attainment or homeownership is highly persistent over time.

A cohort's status at ages 25 to 34 has great implications for the group's future well-being, because cohorts occupying that age group are launching into adult careers. For most of the 20th century, each cohort launched on higher and higher trajectories, but there was stagnation or decline on several indicators between 1980 and 1990. A crucial question to be answered from the 2000 Census is whether the decline observed at ages 25 to 34 across successive cohorts has continued or has reversed. Welcome evidence presented in this report reveals a resumption of progress, with strong increases in college completion and improvement in homeownership rates.

Rapid growth in the foreign-born population has obscured the socioeconomic progress for younger cohorts, especially among Latinos. Although it appears from the overall numbers that high school completion rates fell among Latinos, that decline is an artifact of growing numbers of immigrant arrivals. Among U.S.-born Latinos, high school completion actually increased 4 percentage points for recent cohorts. Similarly, college completion rates among U.S.-born Latinos also increased by nearly 5 percentage points.

Among the immigrants, cohort dynamics also reveal substantial socioeconomic progress in the 1990s. At first glance, immigrant poverty appears to have worsened, but when we disaggregate immigrants by year of arrival and trace those cohorts across decades, we draw a different conclusion: On average, immigrants have experienced sharp declines in poverty the longer they have resided in the United States. For example, among Latinos who arrived in the United States in the 1980s, poverty declined from 33 percent in 1990 to 22 percent in 2000. Steeper declines are observed among Asian immigrants.

The age of immigrants combines with their length of residence in shaping their trajectories into homeownership. Very sharp improvements are found among immigrant cohorts under age 45, and those who arrive later in life also have less time to reach as high an ultimate level of homeownership. Cohorts that arrive at very young ages never experience the dislocation of immigration, and those children grow up to achieve the highest rates of homeownership, with trajectories that track even higher than their U.S.-born counterparts.

The changing composition of the population obscures the socioeconomic progress experienced by the average person. Examining trends for specific cohorts

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within racial and ethnic groups provides a much more promising picture of actual progress in America. The rhetoric used to describe change needs to account for the different time dimensions of change revealed by an analysis of cohorts.

## Trends in the Indicators

Changes in the average social and economic status of the U.S. population are often seen as barometers of well-being. Popular indicators include the poverty rate, the percentage of adults who have college degrees, or the percentage of adults who are homeowners. Trends in these indicators imply a rise or fall in the nation's well-being; but how well do the overall trends reflect the average person's experience or the average experience of a specific ethnic or age group?

A person's fortune depends a lot on timing. Was the person born into a larger cohort with many peers competing for the same set of opportunities? And what was the state of the economy when the person was first looking for a full-time job? Not only is an employment search made easier when many companies are hiring, but the occupations people choose often depend on which new industries were emerging. And how low were mortgage rates at that time? Future housing purchases and employment can be greatly influenced by timing today. In subsequent years, a person can make up much of what was delayed in the present—but on average, a head start accelerates progress.

Not all groups track on the same course: While one group may be sharply elevating its status, another could be left behind. Key groups for social concern include the elderly, young adults, minority group members, and immigrants. Indeed, rapid change in the composition of the U.S. population is placing added weight on the success of rapidly growing groups such as Latinos and Asians, many of whom have immigrated to the United States in the last two decades.

### Seeing Through Compositional Biases

Simple comparisons of status over time are often deceiving. Changes in the makeup of the population, called a "compositional shift," can often skew the overall trend. One of the most dramatic illustrations of such a shift occurred in the decade from 1960 to 1970, when the formation of the giant baby-boom generation caused the median age of the nation to decrease by 1.4 years, even though all the individuals alive in both 1960 and 1970 surely grew 10 years older. This movement in median age reflected the rapid growth in the number of children, not the average experience of growing younger.

Two major compositional shifts have been changing the nation recently. First, the rise and fall of fertility over the last century has created a peculiar national age structure that affects our measurement of socioeconomic status. The aging of the baby-boom generation is shifting the national age structure to weigh more heavily on older age groups that are typically more advantaged. This age shift could well elevate average status while obscuring declines for smaller groups. Indeed, the shift toward older, more advantaged age groups could well disguise a decline in average welfare among young adults in their 20s or 30s.

Second, the resumption of high levels of immigration, beginning in the 1970s but accelerating into the 1990s and mostly coming from Asia and Latin America, is affecting the average status attainments of Asians and Latinos. Because immigrants tend to have lower achievements when they first arrive in the United States, their large numbers have depressed the average status for the entire ethnic grouping, creating a false appearance of downward mobility.

In general, a few larger cohorts can outweigh many smaller ones, and recent immigrants who are young adults or elderly can shift the nation's average socioeconomic status up or down, much as the formation of the baby-boom generation caused the nation's median age to fall. Such compositional shifts are deceiving when it comes to describing actual progress. We need to see through these average trends and track the status changes of specific groups over time.

### Need for a Lifetime Cohort Perspective

The "cohort" is a unit of analysis that helps us answer the above questions about socioeconomic change in the U.S. population. Historically, a cohort was a unit of troops in the ancient Roman army, a battalion of 600 men in a legion of 6,000. Marching through time together, the progress of the cohort represents the average progress for each of its members. The cohort concept was first popularized in demography in the 1940s by P.K. Whelpton,[1] not for the analysis of fighting men but for analysis of the fertility of women. As each cohort of young women came of age, the percentage of women having babies would grow from age 15 and peak in their 20s. Some cohorts would launch into motherhood more quickly than others, with consequences for the ultimate number of children born to that cohort.

Cohort analysis is widely applicable for representing the average experience of groups of people passing through their life course, for comparing this experience to that of previous generations, and for measuring overall changes in society. The cohort is ideal for measuring average experience because it is an aggregate unit whose members share the same age or length of experience.

A cohort perspective enables us to distinguish two important insights on trends in the well-being of a population: lifetime progress and generational progress.

### Aggregate Experience

The progress of a cohort provides insight on aggregate experience, such as the increasing rates of homeownership as the cohort ages from 35 to 45. As time passes, we are able to observe the net improvements or losses for a specific group of people.

### Cohort Succession or Generational Progress

Over time, cohorts enter a given life stage in succession. The replacement of earlier cohorts by more-advantaged ones fosters socioeconomic progress. Alternatively, the entry of less-advantaged cohorts leads to less progress for society. For example, the most recent cohort to reach age 30 may have a homeownership rate that is 5 percentage points lower than the previous cohort that occupied that age group. Although this most recent cohort is only one age group, the young adult cohorts reveal the direction of generational progress. And, if the latest cohort has a lower status than its predecessor at every age throughout its life, this lower status will eventually depress the overall status of society.

Thus, the socioeconomic progress of the population should be measured on both dimensions—improvement over lifetime, and progress between generations. Both dimensions are needed to adequately describe people's well-being.

The key assumption that underlies both insights from cohorts is the notion of persistence of status or experience over the lifetime. People do not remake their lives every year; there is carryover from one year to the next. Cohorts' size, identity, experiences, and relative advantages persist across decades. Wartime experiences shared among young men mark their cohort for life. Similarly, early political or social experiences common to many in a cohort (such as the Great Depression or civil rights protests) may shape that cohort's outlook well into its elderly years. Early economic disadvantages also persist via their impacts on health and nutrition or via their prevention of educational or investment opportunities. Thus, the differences observed among the elderly are found to reflect differences at younger ages, and the differences observed today at young ages are assumed to indicate likely future differences. The powerful effects of persistence are examined throughout the examples contained in this report.

## Growing Concerns of Loss of Progress

In recent years there has been a concern that the United States may be losing some of the socioeconomic gains of past generations. With the exception of the Great Depression in the 1930s, people who have entered adulthood in every decade since 1900 have rightly assumed they would be at least as successful as those who preceded them. Beginning in the 1970s or 1980s, however, a restructuring economy and rising cost of living have created doubt about the positive outlook for the current generation of young adults. Rising immigration has added to this negative perception because the number of poor people has increased. Many question how well these newcomers will assimilate and what their lifetime progress will be as they settle longer in the United States.

In fact, with regard to many indicators, the 1990 Census captured a portrait of faltering socioeconomic progress. Young adults from the baby-boom generation, blacks, Latinos, and new immigrants appeared to be falling below the trajectories of lifetime progress we have grown to expect. The results of the 2000 Census are thus crucial for confirming whether this trend has continued down as feared. Alternatively, the findings from the 2000 Census may indicate a revival of progress.

Measuring the potential downward shift in socioeconomic progress could proceed in one of two ways. Research could focus on the slowing rates of lifetime progress within cohorts. For example, has the latest cohort of young adults advanced more slowly into homeownership as they aged from 30 to 40, or have recent immigrants improved their status more slowly as they settled 10 years longer in the United States? Alternatively, research could focus on changes in the progress between generations, as the upward succession in homeownership attainment between cohorts of young adults in past decades gives way to downward succession in recent years. Both factors may be at work simultaneously, or one or the other may have turned for the better in the 2000 Census.

## Questions Addressed in This Report

This report takes a long view of socioeconomic progress. Weaving together the findings from Census 2000 with previous data collected in 1960, 1970, 1980, and 1990, we are able to track lifetime achievements. We also can contrast the rates of progress in different decades. A high point appears to have been 1980, capping the post-World War II era of rising educational attainment and homeownership for young adults. A slower period of progress followed in the 1980s, and our major interest is to discover whether the 1990s continued this slippage or whether the American people may have regained the socioeconomic progress of an earlier era.

The progress of the American people is best addressed through the changes observed for two key population segments that reflect broader social forces and growing size or political significance.

First, we examine the status of the elderly over time. Have the elderly continued to rise above the disadvantaged status that plagued them earlier in the 20th century? Every decade, a new group of people advances to age 65; the rotating membership in this age group gives the group ample opportunity for socioeconomic change.

The reason for our special interest in the elderly (and why we address them first) is that changes in that age range reflect a legacy borne by cohorts entering with statuses carried from middle age or younger. As new cohorts enter their elderly years, how much have the successes enjoyed by cohorts who were middle-aged two decades earlier persisted in later decades? Even if cohorts' status has trended down as they cross age 65, it is still possible that the replacement of earlier cohorts by newer and more-advantaged ones has elevated the status recorded each decade for those ages 65 to 74.

Second, we examine adults ages 25 to 34, who are just launching their careers. The status of young adults is a major concern because deficits accrued at this age are likely to persist into middle age and beyond. Young people who have already graduated from college or who have already become homeowners have a head start and a superior economic position that will return benefits well into middle age and beyond. The key question is whether the young, who have recently entered adulthood, are continuing the decline discovered in the 1980s when a sizable gap in socioeconomic achievement opened up between young and old. Was this decline stopped by young adults in 2000, and did they resume the progress across generations long expected in the United States?

Answers to these questions can be pursued for the U.S. population as a whole, but there has been a significant national trend in recent decades toward growing racial and ethnic diversity. Change for the entire population might disguise opposite trends for different groups. Therefore, one must consider how each of the four major racial and ethnic groups has fared: non-Hispanic whites, blacks, Asians and Pacific Islanders, and Latinos. The emphasis is less on the differences between these groups and more on the equality of trends over time within these groups.

Analysis of socioeconomic progress for Latino and Asian residents of the United States is especially confounded by the arrival of new immigrants in both groups. In the U.S. population in 2000, 57 percent of all Latinos ages 25 and older were foreign-born, as were 86 percent of all Asians. Tracking the progress of these groups requires more explicit treatment of immigrants, their growing share of the population, and the experience of immigrant cohorts as they reside longer in the United States. It is important to separately examine the trajectories of the U.S.-born population and to trace the progress of earlier immigrant arrivals who have lived in the United States for some decades.

## Indicators of Socioeconomic Status

Measuring the socioeconomic progress of all these groups requires selecting key indicators that tap different dimensions of socioeconomic status. In this report, three measures are used: poverty rate, homeownership rate, and educational attainment.

The *poverty rate* of each group over time is frequently used to measure the percentage of people who live in households with incomes falling below the threshold deemed necessary to subsist at a low standard of living. The threshold is adjusted for household size and is computed roughly as three times the amount of a low-cost food budget. As such, the poverty rate is most useful for measuring what proportion of a group is deprived. In prior decades, the elderly were often afflicted by high rates of poverty. How have they managed to improve that status over time? Poverty has also been a particular public concern with regard to immigrants. Is there any evidence that immigrants have been able to escape from poverty?

The *homeownership rate* of each group measures the percentage of householders who are homeowners instead of renters. This indicator is also interpreted frequently as the proportion who have moved into a more-advantaged middle-class status. Homeownership is also distinguished by its quasicumulative nature, growing over the entire lifetime. It thus reflects the status of the elderly somewhat better than would income alone. How much does homeownership grow over the lifetime for different groups? Have young adults been able to attain homeownership as readily in the past decade as was true in the 1970s or 1980s? And how well have immigrants been able to achieve the American dream of homeownership?

The third indicator is *educational attainment*, examined here as both the proportion who have completed high school and the proportion who have completed four years of college. Educational status lays the basis for other socioeconomic achievements and is a rather fixed attribute for most adults. The educational attainment of young adults is especially crucial as they start their careers. Until 1990, each generation coming of age in the 20th century enjoyed markedly better preparation than earlier generations. In 1990, improvements leveled off and may have started downward. For this reason, it is crucial to learn how well the next cohort, which came of age in 2000, fared.

## Method of Analysis

This report adopts cohort representation as its primary means of exposition. The cohort perspective is an important and uniquely demographic way of viewing society's changes, and is applicable to both the U.S.-born and foreign-born population. Defined by their common temporal identity (year of birth or year of arrival in the United States), cohorts have the analytical convenience of aggregation while retaining the temporal experience (lifetime and historical position) of individuals. In cohort analysis of social and economic data, the same individuals are not followed over time. Rather,

separate surveys repeated at two or more points in time (such as the sequence of decennial censuses) sample the population members from the cohort groups at each point in time. Thus, the groups are followed over time to reflect the average experience of their members.

The underlying data are tabulations from the successive censuses of 1960 through 2000, with appropriate adjustments to data definitions and universes to maintain consistency across the decades. To draw meaningful longitudinal inferences from repeated censuses, the long-term trends must not be biased by short-term economic fluctuations. Over the course of the economic cycle, annual unemployment and poverty can rise and fall with considerable volatility. If the once-a-decade census observation happens to fall in a year when annual fluctuations are unfavorable, then the measurement of long-term trends could be biased upward or downward. By great fortune, all of the decennial censuses from 1960 through 2000 happened to fall at the same favorable point in the economic cycle (see Box 1), indicating that the measurement of long-term trends is not biased.

The findings in this report represent a highly descriptive picture of socioeconomic progress in America, and much of what follows is presented graphically. Adopting a cohort perspective gives a better sense of the average person's experience over time, and that experience can be separated from the impact of large new cohorts entering adulthood or arriving in America. Overall, the trends of the 1990s suggest a more hopeful outlook for the coming decade than was earlier believed.

## Understanding Social Change With Cohorts

America's population is comprised of a series of age groups. All these groups are at different life stages: Some are just entering the workforce and housing market, others are much further along, and still others are nearing or past retirement. With the passing of time, a series of new cohorts is formed by birth, and the existing cohorts pass through successive life stages as they grow older. All cohorts carry with them their distinctive life experiences as well as the legacy of past cohorts' advantages or disadvantages.

*Box 1*

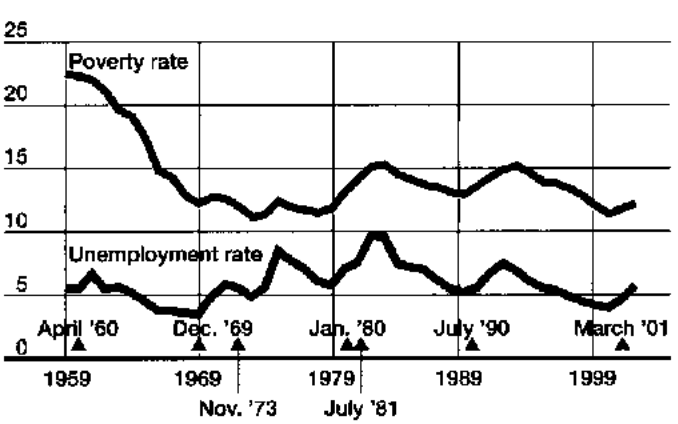
### Annual Fluctuations and Long-Term Trends

A little-recognized yet fortunate feature of the decennial census is its uncanny timing with regard to the national economic cycle of expansion and recession. During recessionary times, incomes fall, poverty and unemployment rise, and economic conditions appear very unfavorable. In contrast, during periods of expansion, job opportunities abound, incomes rise, and poverty falls.

The decennial census, the once-a-decade checkup on the nation's social and economic conditions, will be heavily influenced by its timing relative to an economic cycle. If the census one decade is conducted at the peak of an economic cycle, and the next decade at the trough, then the trends measured over the decade would be skewed downward. Conversely, comparing the results of a census taken near the trough of an economic cycle (when conditions are least favorable) and matching it later to a census near the peak would produce an inflated impression of improving well-being. To counteract these fluctuations, we need a method of factoring out the short-term fluctuations of the economic cycle so that we can better see the long-term trends.

Fortunately, every census since 1960 has fallen on a date that is roughly at the same point in the economic cycle. As shown in the accompanying figure, every census, by total happenstance, has been conducted shortly before the peak is reached of an economic cycle. In the figure, we have marked the years ending in "9" to show the data that were collected for the year preceding an April census. The figure depicts the annual fluctuations of poverty and unemployment rates, and each census has been conducted near the low point in those unfavorable indicators. The figure also shows the official date of the peak of the economic expansion as determined by the National Bureau of Economic Research.

**Timing of Census Relative to Business Cycle Peaks, Poverty, and Unemployment Rates**




Date of economic data in decennial census

▲ NBER peak

Source: National Bureau of Economic Research, Inc.; and www.census.gov/hhes/poverty/histpov/recession.html, accessed Nov. 16, 2003.

The decennial census is a good barometer of long-term trends. In measuring socioeconomic status from peak-to-peak of successive censuses, we gain insights that are relatively free of contamination by short-term fluctuations.

Adding to this mix, another series of cohorts is formed by the year of arrival of immigrants, who merge into the existing birth cohorts but have different histories because their time in the United States begins at later ages. Moreover, immigrants all share the life-shaping event of leaving their home and relocating to the United States. Their socioeconomic progress (particularly for foreign-born Asians and Latinos) must be tracked separately from their U.S.-born counterparts.

## Progress Across Generations

A useful way to think about the social and economic formative experiences of the American people is to view the succession of cohorts as they enter young adulthood. Table 1 borrows from a characterization used by Reynolds Farley to describe the sequence of cohorts.[2] Each birth cohort is designated by its birth year, period of coming of age, and key events at those times. The table also shows the ages that each cohort occupies as it grows older across each successive census.

Throughout American history, the presumption has been that each generation enjoys a higher socioeconomic status than the last. This belief was supported by centuries of technological innovation and economic growth that led to a steadily rising standard of living. This steady progress was disrupted in the 1930s, however, by the calamitous and sustained Great Depression, which rocked the middle class into unprecedented high rates of unemployment and home foreclosures. The 1930s was the only time in our nation's history when homeownership markedly declined, falling from 47 percent to 44 percent of households.

This setback was followed by an even higher rebound of consumer lifestyles. The crises of the Great Depression triggered President Franklin Roosevelt's New Deal, an agenda of innovative social and economic federal programs that are still in force. High-profile crises of the Great Depression included an epidemic of mortgage defaults, foreclosures, evictions of homeowners, and the failure and closure of the banks and lending institutions that owned the mortgages. Accordingly, remedying the home-mortgage problem was a priority of the New Deal. Federal insurance programs for home mortgages made homeownership more secure and protected banks at the same time. These insurance programs bolstered access to homeownership for greater numbers of householders at an earlier point in their life cycles. The key advantage was to enable someone to purchase a home with a down payment of only 10 percent or 20 percent instead of the prior convention of 50 percent or more of the purchase price. Federal support for a secondary-mortgage market also led to the restructuring of the mortgage industry, spreading payments over 30 years in much lower monthly amounts than those required by the then-commonplace 10-year mortgages. The result of this revolution was to stimulate great increases in homeownership after 1940, especially among younger adults who would have previously needed to save for many years to purchase a home.

*Table 1*
**EIGHT BIRTH COHORTS, BORN 1906–1985**

| Year of birth | Cohort | Became young adults | Key events during young adult years | Ages in censuses of 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|---|---|---|
| 1976–1985 | Generation Y | Mid-1990s–2000s | Era of digital dominance | | | | 5–14 | 15–24 |
| 1966–1975 | Generation X | Mid-1980s–1990s | Era of economic polarization and HIV/AIDS | | | 5–14 | 15–24 | 25–34 |
| 1956–1965 | Late Baby Boom | Mid-1970s–1980s | Era of employment restructuring | | 5–14 | 15–24 | 25–34 | 35–44 |
| 1946–1955 | Early Baby Boom | Mid-1960s–1970s | Era of civil rights and sexual revolutions | 5–14 | 15–24 | 25–34 | 35–44 | 45–54 |
| 1936–1945 | World War II | Mid-1950s–1960s | Post–World War II boom | 15–24 | 25–34 | 35–44 | 45–54 | 55–64 |
| 1926–1935 | Parents of the Baby Boom | Mid-1940s–1950s | Post–World War II boom | 25–34 | 35–44 | 45–54 | 55–64 | 65–74 |
| 1916–1925 | Parents of the Baby Boom | Mid-1930s–1940s | World War II | 35–44 | 45–54 | 55–64 | 65–74 | 75–84 |
| 1906–1915 | Grandparents of the Baby Boom | Mid-1920s–1930s | Great Depression | 45–54 | 55–64 | 65–74 | 75–84 | 85–94 |

Adapted from: R. Farley, *The New American Reality* (1996): table 2-1.

Although the nation's economy began to recover markedly toward the end of the 1930s, the onset of World War II was the catalyst for industrial recovery; once the war ended, the country experienced a tremendous employment and consumer boom. Major new federal assistance programs were targeted directly at the youngest adults who were returning soldiers; the G.I. Bill promoted college education, and the Veterans Administration loan program for home mortgage assistance lowered down payments to as little as 5 percent of purchase price.

Imagine the difference in outlook between two cohorts closely spaced in time. One group graduated from high school and then was age 20 in 1930, preparing to begin careers when established workers were being laid off in great numbers and people were losing their homes. Family formation was surely a great uncertainty as well, and fertility did plunge to its lowest level recorded at that time in the United States (but in the 1980s, fertility declined even lower, to 2.03 children per woman). In contrast, young adults reaching age 20 in 1950 were too young to have fought in World War II and were sheltered from the worst impacts of the Great Depression. But, as young adults, they benefited from an expanding postwar economy and the programs established under the New Deal.[3]

The young adults who came of age in the late 1940s and 1950s—the "parents of the baby boom"—enjoyed so much success that they have also been called the "Good Times" cohort.[4] This group benefited from the federal programs instituted after World War II, and they had an added demographic advantage. Born in the low-fertility era of the late 1920s and Great Depression, this group had fewer members than previous or subsequent groups, and their small numbers led to less competition for schooling, housing, and jobs. They also enjoyed marvelous timing in a booming economy. As a result, their career trajectories were greatly accelerated. One study reported that the average adjusted income for these parents of the baby boom increased more than 100 percent in just 10 years as they passed from their 20s to their 30s.[5] As argued by Richard Easterlin, fertility soared far above that in recent preceding decades because newfound material comforts so greatly exceeded the modest expectations formed in Depression-era childhoods.[6] By the 2000 Census, these parents of the baby boom were now elderly, and many of their accumulated advantages elevated their status at that age far above what had been common for the elderly in 1960.

The cohort that immediately followed the 1926-to-1935 birth cohort (the World War II generation born from 1936 to 1945) entered adulthood in the late 1950s and also enjoyed the most favorable opportunities for socioeconomic success. This group was too young to experience firsthand the Great Depression or World War II, but they continued to enjoy favorable conditions for entering the labor and housing markets, and they continued the family lifestyles of the baby-boom era. Between 1940 and 1960, homeownership rates soared to levels nearly 50 percent better than in 1940, climbing only very slowly thereafter. With each new cohort of young adults prospering more than the last, expectations grew for continued progress across future cohorts as well.

*Table 2*
**RELATIVE SIZE OF BIRTH AND ARRIVAL COHORTS EXISTING IN 2000**

| Age | Cohort | Cohort members (millions) | Relative size (% of World War II cohort) |
|---|---|---|---|
| 0–4 | — | 19.0 | — |
| 5–14 | — | 41.2 | 171 |
| 15–24 | Generation Y | 38.9 | 161 |
| 25–34 | Generation X | 39.6 | 164 |
| 35–44 | Late Baby Boom | 45.9 | 190 |
| 45–54 | Early Baby Boom | 37.6 | 155 |
| 55–64 | World War II | 24.2 | 100 |
| 65–74 | Late Parents of Baby Boom | 18.5 | 77 |
| 75–84 | Early Parents of Baby Boom | 12.3 | — |
| 85+ | — | 4.2 | — |
| Total | | 282.4 | |

| Arrival decade | Decade of arrival cohort | Cohort members (millions) | Relative size (% of 1970s arrivals) |
|---|---|---|---|
| 1990–1999 | 1990s | 13.2 | 281 |
| 1980–1989 | 1980s | 8.5 | 181 |
| 1970–1979 | 1970s | 4.7 | 100 |
| pre–1970 | Mid-century immigrants | 4.8 | 102 |
| Total foreign-born | | 31.1 | |

— Not applicable.

Source: Author's calculations using Census 2000, Summary File 3.

For many reasons, the progress of subsequent cohorts began to falter. Those cohorts born after 1945 constituted the large baby-boom generation, and their sheer size created competition that began to slow their success in the job and housing markets. As of 2000, the early baby-boom cohort was 56 percent larger than the World War II cohort that preceded them, and the late baby-boom cohort was even larger—90 percent more numerous than the World War II cohort (see Table 2). The larger size of both baby-boom cohorts was to follow them at every step of their careers. Used to the smaller cohorts born in the 1930s and 1940s, institutions had to greatly expand their capacities to handle this new generation. The first impact was felt in elementary schools during the early 1950s, leading to much larger class sizes, double shifts for classrooms, and many temporary classrooms. Predictably, elementary school overcrowding progressed to high schools, then to colleges, and finally to increased unemployment rates for young people. The housing market was also affected, spurring new home construction and gentrification but also creat-

ing affordability problems because of rising prices due to excess demand among young cohorts.

The oil shock and recession of 1973 made socioeconomic progress even more difficult for the large baby-boom cohorts. Employment opportunities moderated and, after 1975, housing prices began to escalate dramatically for the first time. Whereas home prices (adjusted for inflation) grew only 4 percent in the 1960s, they grew by 11 percent in the 1970s, by 8 percent in the 1980s, and then slowed to 3 percent growth in the 1990s.[7] The sheer numbers of would-be homebuyers in the baby-boom generation helped create this price inflation in the 1970s and 1980s. This price growth was a boon to the financial well-being of earlier cohorts, and the rising prices may have even stimulated more rapid investment in home purchases by the early baby boomers.[8] Nonetheless, this inflation created a growing challenge to young adults who were not yet homeowners, and the younger brothers and sisters constituting the late baby boom (born from 1955 to 1964) were caught at a disadvantage. Members of Generation X, born from 1966 to 1975, inherited a similar disadvantage. The latter group is only ages 25 to 34 as of the 2000 Census, so we can view their status just as they launch their adult careers. One advantage of Generation X, and especially of the subsequent Generation Y (born from 1976 to 1985), is that the members of these two cohorts are less numerous than the members of the baby-boom cohort; members of Generations X and Y face less competition with their peers for entry-level rungs in the housing and labor markets, but their eventual progress remains an open question.

Black, Latino, and Asian cohort members face the additional dimension of historical change. The crumbling of legal segregation and the rise of equal opportunity after the 1960s created new opportunities for those best able to take advantage. For example, only those who were young enough in the 1960s could take full advantage of new educational opportunities. Similarly, only adults under age 45 were likely to benefit fully from new job and housing opportunities. For middle-aged and older generations, these past restrictions remain indelibly imprinted.

## The Renewed Story of Immigrant Assimilation

The resurgence of immigration after 1965 has created (or renewed) another prominent dimension of socioeconomic progress. Following restrictive legislation in the mid-1920s, a 40-year pause ensued during which immigrant status faded from public awareness. Many theories of socioeconomic progress are rooted in the 1960s and 1970s before mass immigration was renewed in earnest. A contemporary evaluation, however, requires explicit attention to this factor.

Despite their relative invisibility in later years, the early 20th-century immigrants and their children (the second generation) were integrally woven into American social history. On the eve of World War II, fully 19 percent of the U.S. population was second generation,[9] and was heavily concentrated in age groups eligible for military service. Indeed, no group likely benefited more from the educational and housing programs following the war than the young-adult cohorts belonging to this second generation.

Just how substantial the progress across the generations was is shown in demographer Richard Alba's study of the Italian American population, highlighting the pivotal period from 1940 to 1960.[10] The educational leap was especially dramatic, and there was a strong convergence of the Italian immigrants with the U.S.-born stock of white Anglo-Saxon Protestants (WASPs). In 1980, the oldest cohorts of Italian Americans still carried the educational, occupational, and marriage profiles of the new immigrants of 1920. In contrast, the youngest cohorts—the third generation to live in America—had simultaneously reached college graduation rates and had entered occupations very similar to the WASPs. Not only had the previous ethnic distinctions been drastically reduced, but high rates of intermarriage were blurring the boundaries of Italian American identity: More than two-thirds of Italian Americans under age 30 had married spouses who had no Italian ancestry. Indeed, Alba declared Italians in America were entering the "twilight of ethnicity."

For the U.S. population, little more than 5 percent to 6 percent were foreign-born in 1960, 1970, or 1980. However, the share of foreign-born surged to 11 percent by 2000. These foreign-born shares were not distributed equally across cohorts. In fact, the nation's population was made up of two types of foreign-born: older adults who were part of the pre-1925 mass immigration, and children and adults newly arrived in the resurgent immigration boom of the 1980s and 1990s.

More than 18 percent of those ages 65 and older in 1960 were foreign-born, but members of that cohort are now deceased. Meanwhile, the sharply growing volume of new immigration since 1970 represents a rising share of all U.S. residents in the younger age groups. Among all U.S. residents ages 25 to 34, the foreign-born share climbed from 7 percent in 1980 to 18 percent in 2000. These foreign-born shares were dramatically higher in the case of Asians and Latinos, representing well over one-half of the young adults in these ethnic groups. Thus, the immigrant life history of Asians and Latinos is integral to their cohort history.

The cohort history described above may not apply well to individuals who immigrated later in life and did not experience U.S. events as children. Also important to consider is how the growing share of foreign-born may alter the trajectories of socioeconomic progress, especially

for Asians and Latinos. In those cases, we must be careful to discern the effects of assimilation in addition to the life-course trajectories of the U.S.-born in these groups. The rapid escalation in the size of the foreign-born population strongly affects the overall trends observed in recent years. As shown in Table 2 (page 145), foreign-born residents who arrived in the United States in the 1980s are 81 percent more numerous than those who arrived in the 1970s, and those who arrived in the 1990s are 181 percent more numerous than those who arrived in the 1970s. Immigrants who have resided in the United States for less than 20 years account for two-thirds of all the foreign-born.

# Life Progress and Social Change

## Trajectories Over the Lifetime

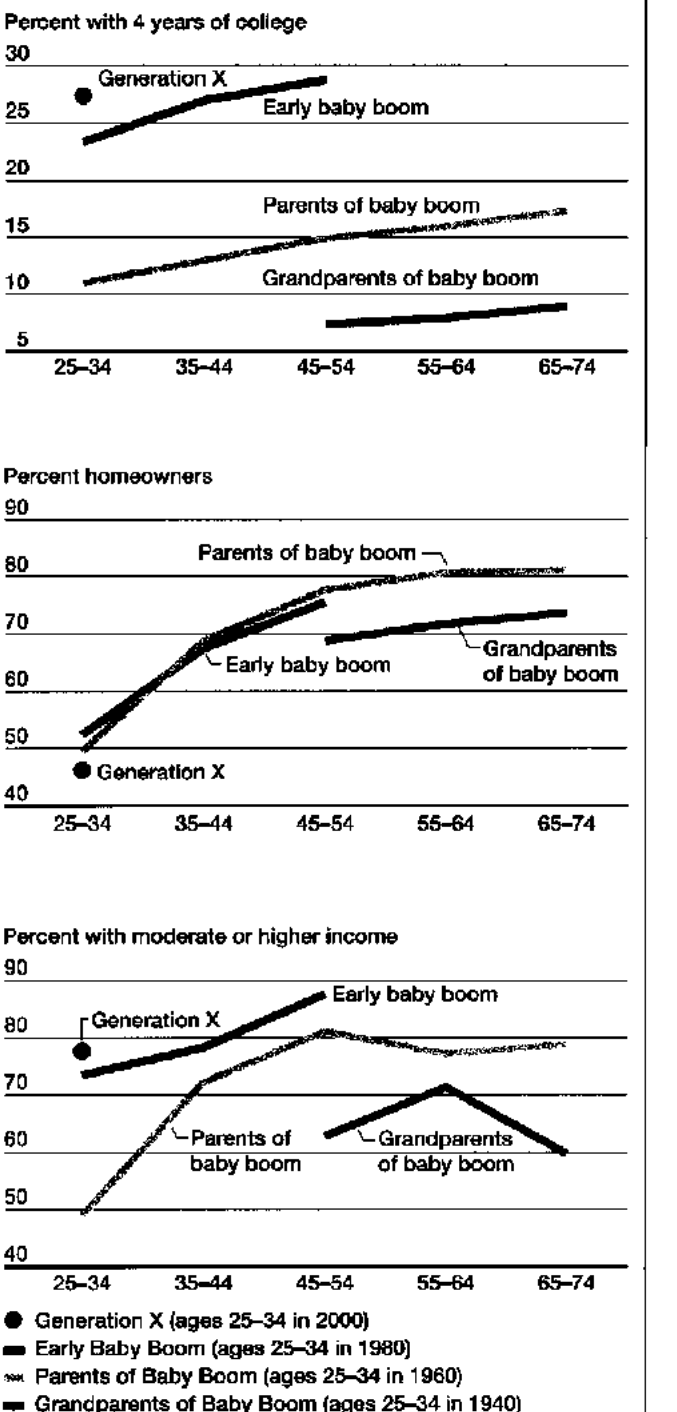
The slopes of trajectories represent aggregate life-course measures of progress because they illustrate change as a group ages. Over time, cohorts usually improve their socioeconomic status, which reaches a peak in late middle age before leveling, declining, or even continuing to rise.

Roughly parallel trajectories are observed for successive cohorts passing through the same age range in different decades. Upward succession across cohorts is indicated when more-recent cohorts track on higher trajectories; downward succession is indicated when successive cohorts track on lower trajectories than their predecessors.

These patterns of lifetime progress and cohort succession are illustrated in Figure 1 using three different indicators. Four selected cohorts are displayed, each of which launched their adult careers 20 years apart: Generation X (ages 25 to 34 in 2000); early baby boom (ages 25 to 34 in 1980); parents of baby boom (ages 25 to 34 in 1960); and grandparents of baby boom (ages 25 to 34 in 1940). Each cohort represents the same group of people as they age from 25 to 74. Only the trajectory of the baby-boom parents is observed over the entire age span because it was ages 25 to 34 in 1960 and ages 65 to 74 in 2000. The earlier cohort—baby-boom grandparents—began their adult careers in 1940 before our data begin, so that cohort is only observed from the time they were ages 45 to 54. And because the early baby-boom cohort and the Generation X cohort have entered adulthood more recently, they have not yet passed through most of the age ranges.

The proportion of each cohort at ages 25 to 34 that has completed four or more years of college forms a relatively flat trajectory over time because college completion is rarely attained after age 25. However, there appears to be a steady upward creep in college completion of 4 percentage points to 7 percentage points throughout the life course of each cohort. In the case of college completion,

*Figure 1*
**Socioeconomic Progress of Selected Cohorts on Three Indicators**




Notes: Moderate or higher income is signified by family income exceeding twice the poverty level. No data are reported for ages under 45 for the grandparents of the baby boom because they were ages 45–54 in 1960, the first date of observation in this study.

Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

the greatest change is the upward succession observed between cohorts. Among the baby-boom grandparents, only 7 percent achieved this level of education by ages 45 to 54, compared with 15 percent for the baby-boom parents and 29 percent for the early baby boomers. Clearly, there has been dramatic intergenerational change.

The proportion of adults with moderate or higher family incomes has incomes more than twice the poverty threshold in the 2000 Census, or greater than $35,206 for a family of four. Among the baby-boom parents, the proportion with better incomes rose markedly during ages 45 to 54 before leveling and declining slightly in the elderly years. In the grandparents' generation, the proportion with better incomes was substantially lower than that of the baby-boom parents at ages 45 to 54 (observed in 1960), and their status rose moderately before falling by ages 65 to 74 in 2000. For the early baby-boom and Generation X cohorts, incomes are initially much higher, but the early baby-boom increase is more gradual during ages 45 to 54. Thus, on this indicator of socioeconomic status, we find evidence of both substantial lifetime improvement and intergenerational progress.

In this report, homeownership is regarded as the percentage of householders who own or are buying their currently occupied home. Nearly three times as many people achieve this status as those who completed four years of college (note the difference in the vertical scales in Figure 1). The major point about homeownership is how much it rises over one's life, approximately doubling between ages 25 to 34 and ages 65 to 74. Relatively less progress is made between generations, with the greatest improvement occurring between the baby-boom grandparents and baby-boom parents (rising from 68 percent to 78 percent at ages 45 to 54). Among the baby boomers, improvement over their parents has faltered, and homeownership among Generation X is also little different from that of the baby boomers.

## Social Change Through a Succession of Cohorts

The above examples suggest how a cohort's social and economic status changes both as a cohort ages and as newer cohorts replace older ones. Given that the cohort trajectories for the most part are fairly parallel, the major dynamic of change is the succession of cohorts. Each decade, a new cohort enters adulthood and is launched on its trajectory from a (usually) higher starting point. From there, the cohort advances through the life course, progressively replacing the cohort that precedes it in each age group.

This insight on the importance of cohorts in social change was established in a seminal essay by Norman Ryder written near the peak of the baby-boom era. Others had written that generations came of age with distinctly different consciousness due to the economic, political, and cultural climate during their teen and young adult years, and that such a generational identity persists for their lifetime. Ryder argued that the cohort was a more precisely defined temporal unit from which generations were constructed. His argument was that birth cohorts provide the fundamental mechanism by which social change is introduced into a population. The infusion of new cohorts and the flow of cohorts toward older ages, together with the deaths of older individuals, constitute a "massive process of personnel replacement, which may be called 'demographic metabolism.'"[11]

The great advantage of the cohort concept is that it provides what some regard as an ideal compromise between the benefits of aggregation and the longitudinal representation of individuals. According to Ryder, "[The cohort concept] is a device for providing a macroscopic link between the movement of the population and movements of individuals... The cohort is a macroanalytic entity like the population, but it has the same temporal location and pattern of development as the individuals that constitute it."[12] Thus, cohorts have the analytical convenience of aggregates while retaining the temporal properties of individuals. Age, duration, and other temporal properties advance for cohorts just as for individuals over time.

### Persistent Traits of Cohorts

Cohort members absorb each year's history when they are the same age. The impact of the same event is different for individuals in different ages, so different birth cohorts experience a different shared history. The economic impact of the Great Depression was less severe for very young adults than it was for those in their 30s who had homes to lose, and it had the least impact on children, who could only vaguely perceive the trauma of what was lost. Yet, the young are more socially impressionable, and the lessons of frugality and lowered material aspirations learned in the Great Depression were absorbed more deeply by teens than by middle-aged adults.[13]

Later, during the social upheavals of the 1960s, the baby boomers were more influenced than their parents were by that decade's political and social currents. Not having established adult lifestyles meant that the baby boom was more impressionable; and not having families, possessions, and positions to protect left them free to experiment with new lifestyles and beliefs. Young men in that cohort were being drafted, and the events surrounding the Vietnam War clearly had a more lasting effect on them than on their parents or even on women of the same generation. More recently, Generation X has been more affected by the threat of AIDS than their parents or even older siblings, because the latter two groups were more likely by the advent of AIDS to be settled in stable sexual relationships and thus protected from risk. Those who are young and in flux are the ones who most urgently feel the need for changing practices and beliefs.

One of the unique cohort attributes most likely to persist over the decades is the relative size of the cohort—small for those born in the 1930s, large for those born in the 1950s and 1960s, and small again for those born in the 1970s. Relative size indicates the amount of competition among the peer group for focused age-specific activities such as schooling, entry-level jobs, and subsequent job promotions. Relative size also indicates the amount of political or economic clout the cohort might wield within the larger society.

A further persistent trait for cohorts is the legacy of socioeconomic achievement. Cohorts come of age with a given educational attainment, and retain that status for life. Occupational patterns entered into during young adulthood also persist, on average, throughout one's career, reflecting both training and new opportunities that became available at the time of career entry.[14] And, as shown later in this report, the socioeconomic status of the elderly reflects the momentum of accomplishments carried forward by cohorts from the time they were middle-aged. Without explicit attention to this carryover across decades, it becomes difficult to explain socioeconomic trends.

### Pitfalls of Ignoring Cohorts

Cohorts are readily identifiable with census data that use familiar variables such as age. But age and cohort are not the same thing. To gain the longitudinal insights provided by cohorts, we must link the observations from a series of censuses, each of which provides a separate age cross-section of the population. Then we can trace cohorts as they grow older from decade to decade. Cohorts can be defined for any temporally identified variable based on the date when people entered a given status (for example, birth year, year of immigrant arrival in the United States, or year of occupancy in a residence). The method is well known to demographers.[15]

Despite this simplicity of construction, cohorts are often ignored in favor of age groups. The results of such analysis are often extremely misleading or shortsighted. A series of well-known fallacies of interpretation are highlighted in Box 2, page 150.

Another disadvantage of neglecting cohorts when analyzing age groups is that, even if the cross-sectional fallacies are avoided, the persistence factor is eliminated from consideration. It is very difficult to make any sense of changes in older age groups, for example, without examining the next-younger age group at a previous point in time. Today's 30-year-olds or 60-year-olds moved into the present age group by leaving a younger one. A cohort's persistent characteristics and differences can often be detected when that cohort's members were younger, and these characteristics help explain the nature of those who later occupy an older age group.

## The Increasing Generational Well-Being of the Elderly

The first group we shall examine for trends in socioeconomic status are the elderly. Because this is a very broad and open-ended age range, we will focus on those who have newly entered this status, the 65-to-74 age group. In the cohort perspective, each decade's elderly population represents the culmination of forces shaping adult fortunes over the last four decades or more. Those reaching ages 65 to 74 in 2000 came of age in the decade after World War II. Their careers were heavily shaped by postwar prosperity, unlike the elderly of 1980, who came of age in the Great Depression.

The elderly have long held a special position in the social policies of the United States. Respect for the elderly is a widespread value, if for no other reason than that this group includes one's own parents or grandparents. Unlike other class divisions, all voters also hope and fully expect to join this group one day, adding further emotional and political endorsement. When President Lyndon Johnson announced the War on Poverty in 1964, the elderly were a severely disadvantaged group.

A number of programs for the elderly were introduced or expanded in the 1960s. Especially important was the introduction of Medicare in 1965, complementing aid received through Social Security, a program set up in 1935. Initially, Social Security benefits were small, averaging only 26 percent of preretirement earnings in 1940; but this income "replacement rate" increased over the years, climbing from 31 percent in 1965 to 42 percent in 1975 before eventually peaking at 54 percent in 1980.[16]

### Age Group Trends

Policies aimed at improving the welfare of the elderly are targeted to the age group, not to cohorts. Accordingly, we first should examine the age group trends, comparing people ages 65 to 74 to young adults ages 25 to 34 in the same year. Then, cohort trends that link age groups over time can be studied, particularly three indicators of social and economic welfare: the poverty rate, homeownership, and educational attainment.

#### Poverty Trends

A new poverty rate calculation was first proposed by the Social Security Administration in the early 1960s.[17] To define the poverty threshold, a low-priced, nutritionally adequate food plan was multiplied by 3 to represent the minimum annual income needed to elevate members of a family above the poverty line. This threshold has been updated in subsequent years in accordance with the Consumer Price Index. Despite weaknesses in the poverty definition—such as the same

*Box 2*

## Cross-Sectional Fallacies

At the single moment in time when a decennial census is taken in the United States, every cohort is captured at a different point in its life course: Some cohorts are young adults, others are middle-aged, and others are elderly. A common fallacy is that age differences at a single moment in time represent a path of *aging*—that today's 45-year-olds will become, 10 years later, like today's 55-year-olds. In reality, there are unique differences among cohorts, so cohorts should be followed over time by linking successive ages in successive censuses.

### Asian Gardeners

One illuminating example of a fallacy is that of U.S.-born Asian American men's participation in the gardening occupation. Two contrasting views are shown in the accompanying figure. Gardening is a long-established occupational choice, and it is clear that older men have a much higher likelihood than younger men of pursuing this occupation. In the age cross-sectional view, it would appear that preference for the gardening occupation rises as these men get older.

The alternative view of cohorts shows the percentage choosing the gardening profession by supplementing the 1990 data with an earlier, 1980 cross-section and simply connecting the dots between 1980 and 1990. As these men grew older, there is little evidence of a preference for gardening. Instead, the older cohorts persist in their occupational choices (probably made 30 to 40 years ago), and young men will never join their fathers or grandfathers in gardening. Therefore, conclusions based on age groups at a single moment in time are clearly a naive, cross-sectional fallacy.

### Will Baby Boomers Depress Housing Prices?

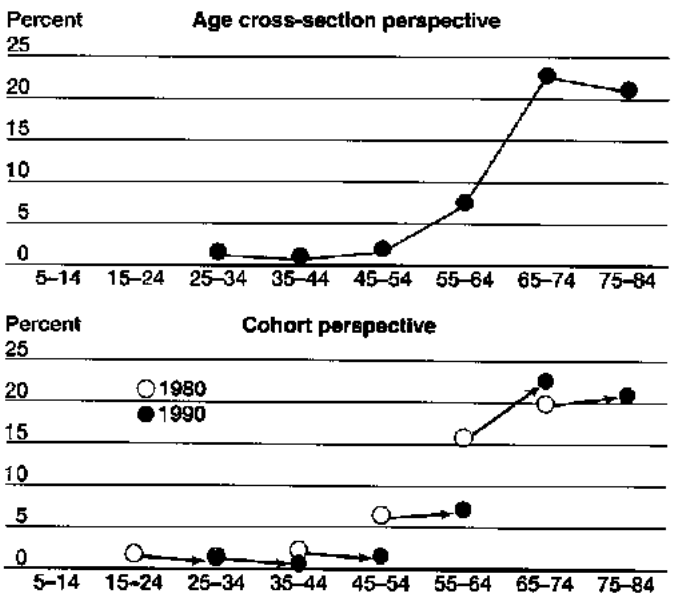
A second example of a cross-sectional fallacy drew enormous attention on Wall Street and among housing and real estate analysts. George Mankiw and David Weil's forecast called for a 47 percent plunge in house prices from 1990 to 2010, based on declines in population at young adult ages and the expectation that the large baby-boom generation would reduce its consumption as it grew older.[1] The econometrics behind the study embedded an age cross-section of house prices. At the time of the 1980 Census, people around age 40 occupied the highest price homes, and the value of homes was lower at older ages. Given the great number of boomers, Mankiw and Weil's model assumed the entire housing market would suffer from lowered demand and reduced prices as the boomers headed down the slope to lower-priced homes—a fallacy, as it turned out.

This cross-sectional fallacy of downward movement was created because earlier cohorts—now older—long ago purchased smaller, older, and lower-priced homes. The great majority of older homeowners remain in the very same homes for 10 and even 20 years or longer.[2] Thus, the baby boomers are not falling down the cross-sectional age slope to lower housing prices.

### The Borjas-Chiswick Debate on Economic Assimilation

A final example of a cross-sectional fallacy is from the field of labor economics, applied to immigrant earnings. The 1970

**Percent of U.S.-Born Asian Men Employed as Gardeners, Viewed From the Age Cross-Section and Cohort Perspectives**




Source: D. Myers, "Upward Mobility in Space and Time: Lessons From Immigration," in *America's Demographic Tapestry*, ed. J.W. Hughes and J.J. Seneca (New Brunswick, NJ: Rutgers University Press, 1999): figure 8.1.

Census was the first census in several decades to ask immigrants when they had entered the United States. With those data, Barry Chiswick was able to investigate the relationship between years since migration and earnings.[3] Chiswick followed the common practice of describing differences in earnings across categories of arrival dates as income growth. After the 1980 Census provided a second cross-section with earnings and arrival data, George Borjas was able to observe cohorts of immigrant arrivals at two points in time.[4] Immigrants who had been in the United States for at least 10 years as of 1980 did not see their earnings increase as much as the 1970 cross-section implied. Borjas showed that the longer-settled immigrants in 1970 and 1980 had been tracking on higher earnings trajectories all along, while more recent arrivals were tracking on lower trajectories. The cross-sectional relationship summed the effects of actual earnings growth over time for cohorts plus the positive gap between trajectories of high-tracking early arrivals and low-tracking recent arrivals.


References

1. N. George Mankiw and David N. Weil, "The Baby Boom, the Baby Bust, and the Housing Market," *Regional Science and Urban Economics* 19, no. 2 (1989): 235–58.

2. Dowell Myers and John Pitkin, "Evaluation of Price Indices by a Cohort Method," *Journal of Housing Research* 6, no. 3 (1995): 497–518.

3. Barry R. Chiswick, "The Effect of Americanization on the Earnings of Foreign-Born Men," *Journal of Political Economy* 86, no. 5 (1978): 897–921.

4. George Borjas, "Assimilation Changes in Cohort Quality, and the Earnings of Immigrants," *Journal of Labor Economics* 3, no. 4 (1985): 463–89.

threshold being used nationwide despite large differences in housing costs and other factors—the poverty calculation has become one of the most standardized social indicators in America.[18]

Applied to data from the 1960 Census, the new calculations found the elderly to be in deep financial distress: In 1960, fully 33 percent of those ages 65 to 74 had incomes falling below the poverty line. An even greater percentage of those ages 85 and older (44 percent) also fell below the poverty line. Here we will focus just on those ages 65 to 74 because they represent the new group of elderly each decade (having been ages 55 to 64 at the last census). Focusing on this one age group also helps avoid confounding effects of growing life expectancy that have increased the relative number of the old-old (ages 85 and older) over recent decades.

The improvement in poverty among the elderly has been dramatic since 1960, plunging from 33 percent to 7 percent in 2000 (see Figure 2). For comparison, we also show the poverty rate in the same year of young adults ages 25 to 34. The poverty rate of the young was half as great as that of the elderly in 1960, but after falling to a low in 1970, by 1990 the youth's rate had exceeded that of the elderly.

### Homeownership Trends

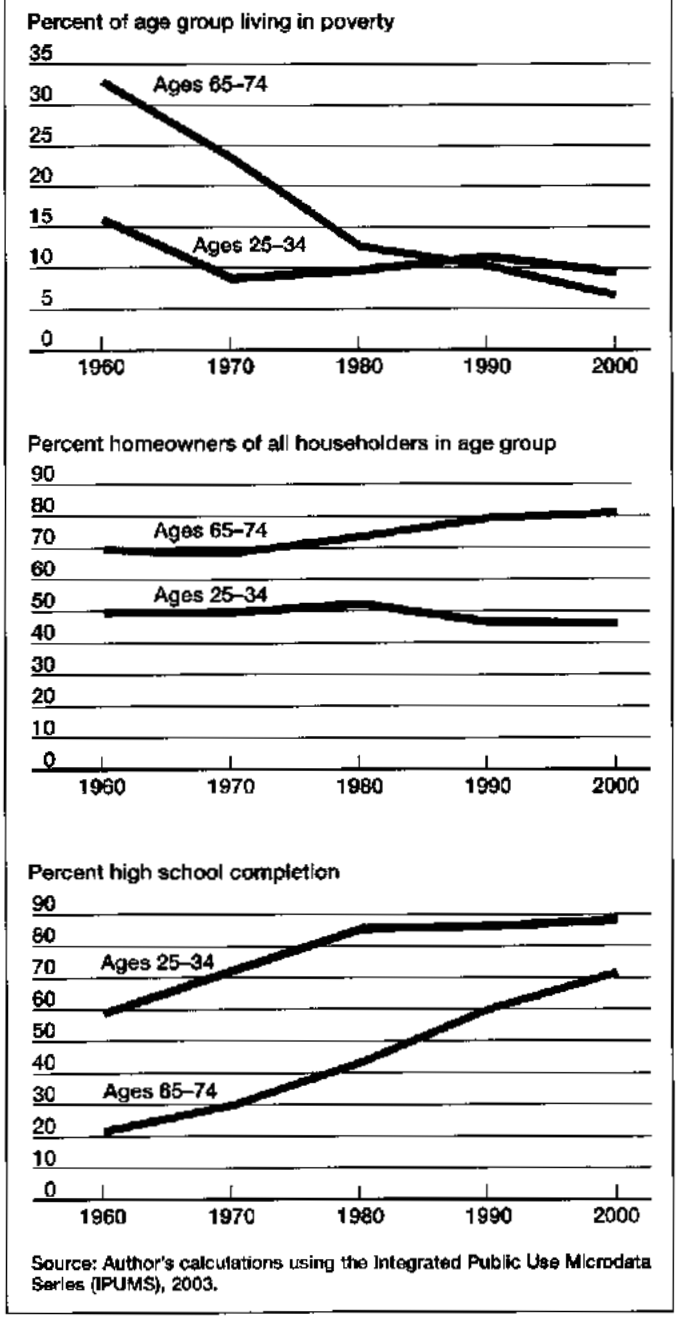
Another indication of rising fortunes among the elderly is provided by homeownership, defined as the percentage of householders who own (with or without a mortgage) rather than rent their residence. The cohort membership of the household is given by characteristics of the householder (formerly known as "household head"). While poverty measures current economic distress, homeownership indicates a longer, lifetime economic well-being. Among young adults, home purchase reflects an anticipation of future earnings levels and family needs; among the elderly, homeownership reflects the persistence of decisions made decades before. Homeownership among the elderly climbed steadily over the last half-century, from 69 percent in 1960 to 81 percent in 2000, the highest rate for any age group (see Figure 2). For comparison, the homeownership rate of young adults ages 25 to 34 is roughly two-thirds that of the elderly, reaching a peak of 52 percent in 1980 before declining to 46 percent in 2000.

### Educational Attainment Trends

Underlying these favorable trends for the elderly is a sharp improvement in their educational status. As recently as 1960, only 20 percent of the elderly had attained a high school degree or equivalent. That figure rose sharply to 70 percent in 2000 (see Figure 2). Education also increased for young adults in this time period, although not as dramatically. High school completion among adults ages 25 to 34 rose from 58 percent in 1960 to 84 percent in 1980, holding roughly constant until 2000. College completion in the general population also has increased for the elderly, but not as markedly as it did for high school completion. College completion rates rose from 4 percent in 1960 to 17 percent in 2000.

*Figure 2*

**AGE GROUP COMPARISONS OF SOCIOECONOMIC PROGRESS OF THE ELDERLY AND YOUNG ADULTS, 1960–2000**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Box 3*

**DISPLAYING SOCIAL DATA IN AN AGE-PERIOD-COHORT FRAMEWORK**

Percent of adults completing high school

| Age | 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|
| 25–34 | 58.1 | 72.2 | 84.2 | 84.1 | 83.8 |
| 35–44 | 51.7 | 62.2 | 76.8 | 85.6 | 84.9 |
| 45–54 | 37.8 | 54.5 | 66.1 | 78.1 | 85.8 |
| 55–64 | 26.7 | 40.4 | 56.9 | 67.6 | Ⓒ 78.6 |
| 65–74 | 19.6 | 29.6 | 42.7 | 59.3 Ⓓ | 69.2 |
| 75–84 | 17.7 | 25.0 | 33.5 | 46.7 | 62.9 |
| 85+ | 17.5 | 25.2 | 29.8 | 38.2 | 54.0 |

Ⓐ Ⓑ

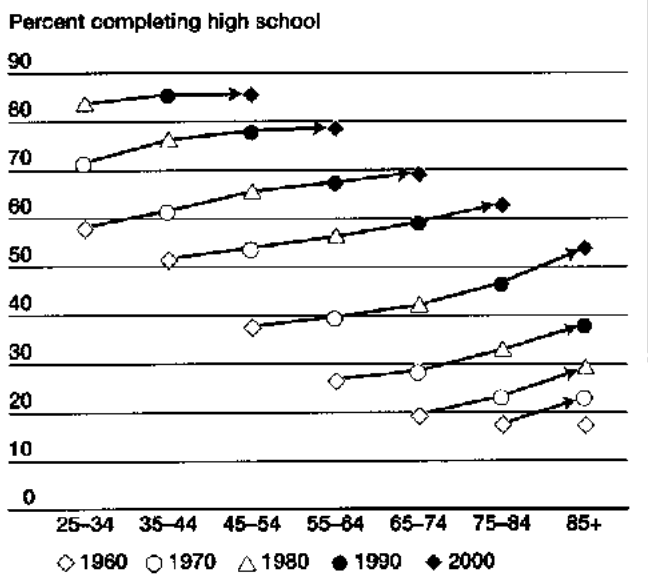
How to "slice" the data matrix for display:
A — Period trends from 1960–2000 are repeated for each age.
B — Age cross-section is repeated for each period.

In contrast, cohorts run down the diagonals, growing older each decade, and can be displayed alternatively as:
C — Period trajectories that show historical dates on the horizontal axis, or
D — Age trajectories that show ages on the horizontal axis.

Source: Author's calculations using the Public Use Microdata Sample (PUMS) from the 1960–2000 censuses.

*Figure 3*

**HIGH SCHOOL COMPLETION TRAJECTORIES OF COHORTS ACROSS AGE AND DECADES**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

## Cohort Perspective on Rising Status Among the Elderly

The above indicators describe age group trends, measuring differences across successive cohorts ages 65 to 74 or ages 25 to 34. However, the socioeconomic status of the elderly does not solely, or even mainly, reflect the economic or policy conditions at the time of observation. For many outcomes, current status is a legacy of persistent effects inherited from middle age and before. To illuminate these lifetime conditions, a series of graphs presented here plot the cohort trajectories through time by displaying their movement across ages. Given age cross-sections from multiple periods, the conversion from age group to cohort data is illustrated in Box 3.

### Educational Attainment Trends

The most dramatic example of cohort differences is educational attainment. Given that education is largely completed by age 25, cohorts retain a relatively constant educational status as they age (see Figure 3). With minor but notable exceptions, virtually all of the change in educational attainment is achieved between cohorts instead of within the lifetime of any one cohort. The increase in high school completion between successive cohorts is astounding, in some cases exceeding 10 percentage points in just one decade.

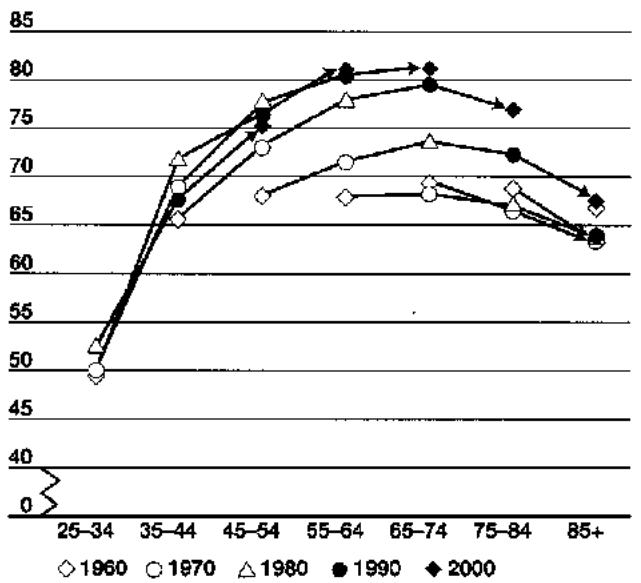
So great has the improvement been in educational attainment across successive cohorts that the percentage of people with a high school degree at ages 65 to 74 rises sharply as each successive cohort enters that age over the five decades. Tracing the trajectories of younger cohorts, we can predict that the early baby-boom cohort (ages 45 to 54 in 2000) will likely enter their elderly years with a high school educational attainment of at least 88 percent, far above the 69 percent recorded for the elderly age group in 2000, and close to the level attained by the 25-to-34 age group in that year.

Certain aspects of these educational trajectories deserve explanation. First, despite our expectation, educational attainment is not absolutely constant for cohorts ages 25 and older. Curiously, the cohorts all appear to slowly inflate their educational attainments over time, creating trajectories that slope slightly upward by two or three percentage points per decade. This upward creep is prevalent for all cohorts in all decades, and is probably not a result of inconsistencies between censuses.[19] If there were an inconsistency, we would expect to see a bump or dip in the smooth cohort trajectories. The best explanation for the upward creep is that it reflects progressive respondent error, likely a form of resume padding and "selective amnesia," causing census respondents to forget that their final year of school was not actually completed. In any event, the effect is slight and consistent across groups, so it does not bias analysis.

The one exception to the constant slope of these educational trajectories is the accelerated upslope of high school completion for cohorts after ages 65 to 74. This is likely the result of mortality differences. If less economically advantaged cohort members do not have

*Figure 4*

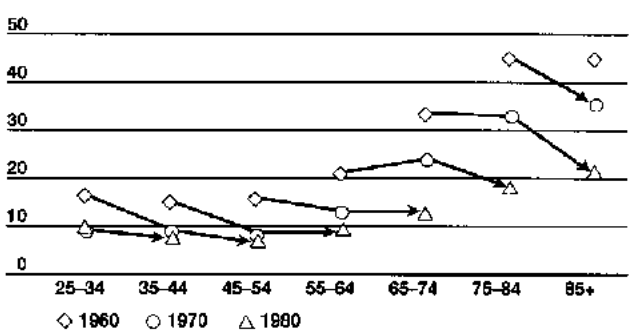
**HOMEOWNERSHIP ATTAINMENT TRAJECTORIES OF COHORTS ACROSS AGE AND DECADES**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Figure 5*

**POVERTY TRAJECTORIES OF COHORTS ACROSS AGE AND DECADES**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

high school degrees, and if they are prone to higher mortality due to poorer health care and other factors, then the educational attainment of those who survive at older ages will slant toward higher prevalence rates of high school completion.

### Homeownership Trends

Homeownership is not constant over people's lifetimes, and the increase in homeownership from young to old can be dramatic. Less dramatic but still important is the increase in homeownership that occurs between successive cohorts. The increase observed at ages 65 to 74 amounts to 12 percentage points between 1960 and 2000 (see Figure 4). Today's elderly cohorts, who were ages 25 to 34 in 1950 or 1960, were ideally positioned to take advantage of new homeownership opportunities and economic prosperity in the post-World War II era. Government-sponsored mortgage programs stimulated home buying among the young because their much-lower requirements for down payments (5 percent to 10 percent instead of 40 percent to 50 percent) meant the young could buy without saving for many years. Rapid increases in average earnings for young men in the 1950s and 1960s further accelerated the pace of home buying. Smaller increases in home buying in the 1970s were spurred by the growing importance of women's earnings, not simply because of women's rising labor force participation but because new legislation required lenders to count women's earnings as fully as men's in mortgage applications.

Now that the young from the early years after World War II are aging, they are bringing their accumulated high homeownership rates with them. For example, those entering ages 65 to 74 in 2000 had homeownership rates when they were ages 45 to 54 (some 20 years earlier) that are 9 percentage points higher than the 45-to-54 age homeownership rates of the cohort that entered ages 65 to 74 in 1980. Thus, this earlier difference in homeownership is carried forward, roughly matching the 8 percentage point difference recorded between the two cohorts at ages 65 to 74.

The pattern is more confused among more recent cohorts positioned in younger ages because these cohorts have lagged below the trajectories set by the earlier cohorts. Some of this decrease in homeownership may be due to delayed marriage or lengthened educational training periods, both of which discourage members of a cohort from launching homeownership at a very young age. In addition, rising interest rates from 1980 through the mid-1990s and rising house prices made homes less affordable. As a result, we find a polarization of housing status, with large increases in homeownership among the elderly and declines among the young.[20] The cohort ages 55 to 64 in 2000 will likely have a trajectory that exceeds all previous cohorts.

### Poverty Trends

Poverty is much more closely tied to current economic conditions, and yet it also reflects prior cohort experience. The poverty rate at ages 65 to 74 is clearly linked to the level of poverty recorded 10 years earlier when the cohort was 10 years younger (see Figure 5). Poverty rates were unusually high for all age groups in 1960. The cohort trajectories from 1960 to 1970 show the sharpest

improvement for young cohorts, indicating that the improvement in poverty was due to more than just Social Security or Medicare benefiting the elderly. Broad economic expansion and welfare support for families played a role in the improvements of the 1960s. Nonetheless, the poverty trajectories since 1970 reveal a substantially more-disadvantaged status for the elderly in earlier cohorts than those reaching ages 65 to 74 since 1980. Social policy reforms of the 1960s surely helped improve the status of the elderly; however, the entry into elderly status of the formerly middle-aged who possess higher education, higher homeownership, and a lower legacy of poverty also has boosted that group's current average status.

### Summary

Analysis of trends for age groups shows that socioeconomic status has improved markedly for the elderly since 1960, especially with regard to rising education levels and falling poverty. Young adults have enjoyed much less success, and, on some indicators, the elderly have now achieved a status superior to young adults. This reverses the pattern common in 1960.

Most of the improvements for the elderly appear to be the result of successes in middle age or before. Cohorts arriving at age 65 in recent years have a much higher socioeconomic status. In contrast, among the young, there has been a general downward shift since 1980. Thus, it is upward cohort succession among the elderly and downward cohort succession among the young that yields the divergent trends for age groups.

Looking ahead to the next two decades when the baby-boomers enter their elderly years, one could expect them to continue their current advantages of high educational attainment and low poverty. With regard to homeownership, the later baby-boom cohorts may not sustain the high homeownership rates of the elderly from the early baby-boom or World War II cohorts. Nonetheless, the socioeconomic status of the baby boomers will likely exceed that of any cohort who entered their elderly years before 1980.

## Continued Lagging Progress for Young Adults?

The improving socioeconomic status of the elderly is one of the great successes in America over the last half-century. However, the sharp improvements among the elderly do not seem to have been equally enjoyed over this period by young adults. At one time, the elderly had poverty rates twice as high as the young, but, by 1990, their poverty rates had plunged below those of the young. Similarly, the elderly not only closed much of their education deficit relative to the young, but they also widened their sizable advantage in homeownership.

Whatever the direction of change, trends among young adults have far greater implications for the future than do trends for the elderly. Whereas the elderly are nearing the end of their life and changes in their status reflect the culmination of 40 to 50 years of progress, young adults are just launching their careers and setting a course of 40 to 50 years of *future* progress. If the young-adult cohorts launch on trajectories that track lower than their successors, this downward cohort succession could likely characterize their careers as they age.

In fact, the cohorts of the baby-boom generation have fallen below the trajectory set by the baby-boom parents and World War II-born generations. This trend was especially clear at the time of the 1990 Census. An urgent question to be addressed with the 2000 Census data is whether this decline has continued for Generation X, those born from 1966 to 1975 and now emerging into young adulthood. If downward succession continues for Generation X, the risk is increased that the subsequent generation now in college—those born from 1976 to 1985—will also experience this downward succession.

Some of the apparent decline in socioeconomic achievement among the young may be due to the rapid racial and ethnic changes in the U.S. population that are most dramatic among children and young adults. If groups that are growing in prevalence have distinctly lower socioeconomic attainments, that may depress the average achievement level for the overall cohort. Not only should we be concerned about these minority groups, but the implication could be that the average non-Hispanic white is experiencing a more favorable path of progress than indicated by the population as a whole. Accordingly, it is important to separately track the cohort trajectories of non-Hispanic whites, blacks, Asians, and Latinos.

In the case of Asians and Latinos, an additional confounding factor is the arrival of new immigrants (see Box 4), so that the overall Asian or Latino cohorts may have their average status shifted up or down by the new arrivals. Adjustments are made for this factor in some analyses in the present section, while the next section focuses directly on socioeconomic progress of the immigrants.

### Educational Attainment

#### Overall Changes Between Cohorts

As previously shown, educational attainment trajectories are fairly flat after age 25 because education is largely completed by that age. Accordingly, it is more efficient to focus on the young-adult launching points for educational trajectories, viewing these separately for non-Hispanic whites, blacks, Asians, and Latinos.

Between 1960 and 2000, cohorts in each racial and ethnic group have entered adulthood with ever-higher levels of high school completion and college education (see Figure 6, page 156). For each cohort, the figure displays the percentage that have completed high school and the smaller percentage that have completed both high school and four years of college.

As young adults in 1960, the later parents of the baby boom were less educated than young adult cohorts in more recent decades. The difference in high school completion among blacks is especially striking; those who came of age in 1980 were substantially better prepared than those in 1960. A similar generational improvement is found among Latinos.

The sharpest gains in high school completion were achieved between cohorts entering adulthood in 1960 and 1980. Since that time, the gains have leveled off at about 90 percent completion for both U.S.-born and foreign-born whites and Asians, 80 percent completion for blacks, and 60 percent completion for Latinos (see Table 3, page 156). Despite the leveling, high school completion rates still increased by 2 percentage points to 4 percentage points among whites, blacks, and Asians. In contrast, among Latinos, high school completion fell by

*Box 4*

## Proportion Foreign-Born Among Cohorts

The growing presence of foreign-born residents complicates the analysis of socioeconomic progress. Given that immigrants tend to have lower status than U.S.-born residents, an influx of new immigrants can drive socioeconomic trends down. Most often, we are interested in the progress recorded across decades by U.S.-born residents. Separately, we should give explicit attention to the progress of immigrants after they arrive in the United States.

The nation's foreign-born population changed dramatically between 1960 and 2000, but this change affects some age groups much more than others. The great majority of immigrants are young when they arrive in the United States. Seventy percent of recent arrivals were under age 35 at the time of the 2000 Census; among Latinos, this figure reached 78 percent. As a consequence of this concentration of the young, the rising tide of recent immigration to the United States has most swelled the younger age groups. Given that roughly two-thirds of all the foreign-born have resided for less than 20 years in the United States, there has not been time for these immigrants to move into the older age cohorts.

We should not neglect, however, the large group of immigrants who have aged while in the United States. The accompanying table shows that, in 1960 and 1970, a fairly high percentage of elderly Americans were foreign-born. These large numbers reflect a previous era of young people's migration, one that came to a close with immigration restrictions after 1925. By 1990, the last vestiges of this earlier migration were visible in the 15 percent of adults ages 85 and older who were foreign-born.

The new immigration of the post-1965 era is slowly beginning to build a concentration among young adults, reaching about 18 percent of all Americans ages 25 to 34. Relatively low concentrations are found in any decade among young adults who are non-Hispanic whites or blacks.

Among Asians and Latinos, very high proportions of all age groups in all decades are foreign-born. Because of rising immigration, the proportion foreign-born among Asian adults in 2000 (83 percent) is almost twice as great as it was in 1960. An even greater increase has occurred among Latinos, although the proportion of foreign-born Latinos was only 58 percent in 2000.

**Percent Foreign-Born by Race and Age, 1960–2000**

| Age | 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|
| **Total population** | | | | | |
| 0–14 | 1.2 | 1.3 | 2.5 | 2.8 | 3.8 |
| 15–24 | 2.2 | 2.7 | 4.9 | 8.1 | 11.5 |
| 25–34 | 4.0 | 5.1 | 7.1 | 10.4 | 17.6 |
| 35–44 | 4.4 | 5.5 | 8.2 | 10.0 | 14.6 |
| 45–54 | 7.4 | 5.0 | 7.3 | 10.0 | 12.2 |
| 55–64 | 13.9 | 7.5 | 6.3 | 8.6 | 11.5 |
| 65–74 | 19.7 | 13.4 | 9.1 | 7.2 | 10.3 |
| 75–84 | 21.0 | 17.6 | 15.0 | 9.3 | 8.5 |
| 85+ | 19.7 | 17.7 | 18.6 | 15.1 | 9.3 |
| **Foreign-born Asians** | | | | | |
| 0–14 | 9.9 | 13.0 | 37.4 | 24.9 | 22.8 |
| 15–24 | 20.5 | 28.7 | 56.8 | 63.9 | 56.7 |
| 25–34 | 40.5 | 56.4 | 73.7 | 78.4 | 82.8 |
| 35–44 | 30.0 | 48.3 | 78.0 | 82.6 | 86.1 |
| 45–54 | 51.5 | 31.8 | 64.4 | 83.7 | 86.3 |
| 55–64 | 78.0 | 51.8 | 51.1 | 75.3 | 86.9 |
| 65–74 | 80.9 | 71.5 | 63.3 | 66.9 | 80.3 |
| 75–84 | 94.4 | 74.1 | 67.7 | 73.4 | 70.6 |
| 85+ | 84.6 | 71.0 | 73.2 | 79.3 | 70.2 |
| **Foreign-born Latinos** | | | | | |
| 0–14 | 3.5 | 7.9 | 10.4 | 11.5 | 11.8 |
| 15–24 | 12.7 | 17.9 | 28.7 | 38.0 | 40.3 |
| 25–34 | 15.8 | 27.2 | 38.2 | 49.5 | 58.1 |
| 35–44 | 21.9 | 29.4 | 42.6 | 49.0 | 58.1 |
| 45–54 | 36.5 | 28.6 | 39.5 | 49.7 | 54.8 |
| 55–64 | 51.4 | 37.7 | 39.5 | 45.0 | 53.8 |
| 65–74 | 53.6 | 48.8 | 49.1 | 44.5 | 49.7 |
| 75–84 | 57.7 | 48.2 | 56.7 | 53.7 | 48.2 |
| 85+ | 49.3 | 44.3 | 57.8 | 62.8 | 55.3 |

Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

The rapidly growing immigrant share of the U.S. population is most prominent among young adults, who can significantly affect the overall socioeconomic trends for Asians and Latinos, including both young and elderly adults.

nearly 2 percentage points (from 58 percent to 56 percent). This downward trend from an already low level of education is of considerable concern.

More dramatic changes are evident for college completion rates, with rapid gains followed by stagnation and then renewal. Although strong increases occurred from 1960 to 1980 with regard to the proportion of each cohort that completed four years or more of college, there were no further increases in college completion between 1980 and 1990 (see Figure 6). In fact, it appeared that the past trend of progress for each new cohort had stalled and might even reverse. Fortunately, between 1990 and 2000, the upward trend in college completion resumed. The upturn was greatest among Asians (+12 percentage points); followed by whites (+7 percentage points); blacks (+3 percentage points); and Latinos (+1 percentage point). This recent resurgence is so significant that it is explored later in this report.

### Filtering Out the Effect of New Immigrants

How might the infusion of new immigrants be altering these trends in educational attainment? Among whites and blacks, no more than 9 percent of the young-adult cohorts in any decade are foreign-born, so there is little likelihood that this factor could substantially shift the aggregate educational attainment for those cohorts. However, among Asians, at least 40 percent of the young cohorts each decade are foreign-born, with the highest percentage (83 percent) reached in 2000 (see Box 4, page 155). Similarly, among Latinos, at least 16 percent of the young cohorts each decade are foreign-born, with the highest percentage (58 percent) reached in 2000. Accordingly, there is a good chance that immigrants will alter the trend observed across cohorts arriving in young adulthood.

In fact, the influx of immigrants has a pronounced effect on trends in Latino educational attainment. When

*Table 3*

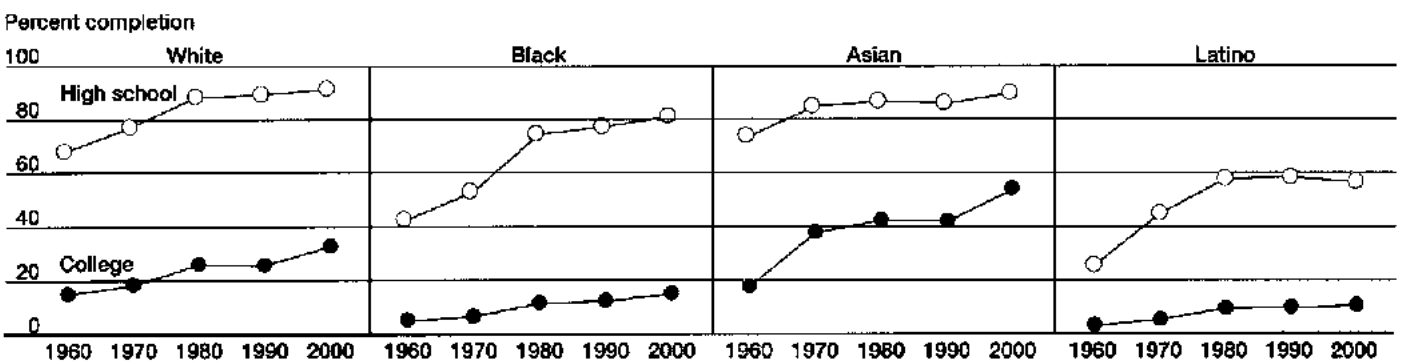
**EDUCATIONAL ATTAINMENT OF COHORTS LAUNCHED INTO ADULTHOOD BY DECADE, TOTAL U.S. POPULATION AND TOTAL U.S.-BORN POPULATION, AGES 25–34, BY RACE/ETHNICITY**

| Percent of cohort completing high school | 1960 | 1970 | 1980 | 1990 | 2000 |
|---|---|---|---|---|---|
| **Total population** | 58.1 | 71.6 | 84.2 | 84.1 | 83.9 |
| White | 67.7 | 76.8 | 88.0 | 88.9 | 91.0 |
| Black | 42.5 | 52.9 | 74.4 | 77.1 | 81.0 |
| Asian | 73.6 | 84.6 | 86.5 | 85.7 | 89.6 |
| Latino | 25.5 | 44.6 | 57.4 | 58.0 | 56.3 |
| **U.S.-born only** | | | | | |
| Total | 58.7 | 72.1 | 85.5 | 86.4 | 88.3 |
| White | 67.9 | 77.2 | 88.2 | 88.9 | 91.1 |
| Black | 42.4 | 52.6 | 74.3 | 76.8 | 80.8 |
| Asian | 85.5 | 89.9 | 93.9 | 92.6 | 93.3 |
| Latino | 27.3 | 45.7 | 66.0 | 72.7 | 76.6 |
| **Percent of cohort completing 4 years of college** | **1960** | **1970** | **1980** | **1990** | **2000** |
| **Total population** | 11.0 | 15.9 | 23.3 | 22.7 | 27.5 |
| White | 14.7 | 18.1 | 25.8 | 25.5 | 32.5 |
| Black | 5.1 | 6.5 | 11.6 | 12.3 | 15.1 |
| Asian | 17.5 | 37.5 | 42.1 | 41.7 | 53.6 |
| Latino | 3.1 | 5.2 | 9.3 | 9.7 | 10.4 |
| **U.S.-born only** | | | | | |
| Total | 11.0 | 15.7 | 23.3 | 22.6 | 27.9 |
| White | 14.7 | 18.1 | 25.7 | 25.2 | 31.9 |
| Black | 5.0 | 6.2 | 11.3 | 11.5 | 14.3 |
| Asian | 21.7 | 27.3 | 40.4 | 40.5 | 52.5 |
| Latino | 3.0 | 4.3 | 9.8 | 11.4 | 16.1 |

Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Figure 6*

**PERCENT HIGH SCHOOL COMPLETION AND PERCENT FOUR-YEAR COLLEGE COMPLETION AMONG NEW COHORTS LAUNCHED INTO ADULTHOOD EACH DECADE, AGES 25–34, BY RACE/ETHNICITY**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

the data for U.S.-born young adults are evaluated, Asians have high school completion rates for 1980 through 2000 that are only moderately elevated, about 93 percent (see Table 3). Among Latinos, however, the flat trend of 58 percent high school completion from 1980 to 2000 is replaced with steadily increasing educational attainment, growing from 66 percent to 77 percent. Between 1990 and 2000, U.S.-born Latinos increased their high school completion rate by 4 percentage points, more than any other group. But the growing numbers of foreign-born Latinos clearly have depressed the overall high school completion rate by that group. It is erroneous to refer to these lower-educated individuals as high school "dropouts." In fact, immigrants from Mexico and other Latin American countries often complete their schooling in the eighth grade and never enroll in U.S. schools.[21]

Once the effect of immigrants is removed, an even greater shift in status occurs with regard to four-year college completion. There is little change among U.S.-born Asians, because the large numbers of foreign-born have college completion rates much like the U.S.-born. In the case of Latinos, however, the college completion rate increases from a flat trend post-1980 to 16 percent in 2000. Once again, the apparent lack of educational progress across generations among Latinos is due to the growing numbers of foreign-born in Latino cohorts.

### Progress Again From 1990 to 2000

Between 1980 and 1990, the upward trend of higher educational attainment across successive cohorts appeared to stall out. Fortunately, after 1990, the trend toward higher college completion resumed, especially among whites, Asians, and blacks. The upturn is also present for U.S.-born Latinos. This development is an extremely favorable omen for the socioeconomic achievements of Generation X (ages 25 to 34 in 2000).

The resumption of this upward trend is so noteworthy that it deserves closer scrutiny. Could the apparent turnaround simply be a reflection of a reporting error in the census time series of educational attainment, one that either exaggerated the attainments in 2000 or perhaps depressed the attainment observed in 1990? In fact, further investigation has shown this upturn to be credible.[22] The census questionnaire items on educational attainment were virtually identical in 1990 and 2000, and U.S. Census Bureau staff confirm this finding. The upturn is also observable in annual data from the Current Population Survey, which show that most of the upturn occurred after 1995.

A challenge to the veracity of the earlier trend between 1980 and 1990 may be of greater concern: If the 1990 attainment level had been erroneously depressed, it would contribute to a false impression of a resumed upward trend between 1990 and 2000. In fact, the Census Bureau changed its questionnaire items with regard to educational attainment in 1990, switching from a focus on years of education to one of degrees completed. After appropriate adjustments to the education coding, however, careful testing shows that the trend from 1980 to 1990 can be integrated into a seamless series of measurements of educational attainment. The best evidence is that the cohort trajectories used in this report indicate no dips or jumps in either 1990 or 2000 (see Figure 3, page 152). The trajectories evidence a smooth and continuous record of educational attainment. The *only* change found in 2000 is for the youngest cohort entering adulthood. This group is the product of educational changes in the preceding decade, and the group reflects a true upturn in achievement. After a period of stagnation in educational progress, it is a welcome sign that young adults are again elevating their educational attainment.

## Homeownership

As discussed previously, homeownership rates rise rapidly over one's life. Unlike educational status, homeownership tends to increase markedly into elderly years. However, the baby boom and more recent generations have gotten off to a slower start in the housing market. This could be due to both a later age at marriage and family formation and also to rising housing costs. For whatever reason, recent cohorts appear to have lower homeownership rates than their elders.

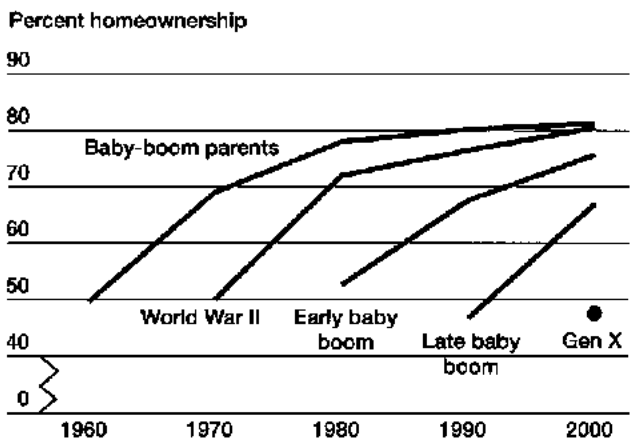
Here we look much more closely at the achievements of young adults by major racial and ethnic groups and education level. Because the trajectories overlap in early adult years, a cohort *period* trajectory format, and not a cohort *age* trajectory format, shows the different trajectories more clearly. This cohort period format highlights the decade when the cohort entered adulthood (at ages 25–34), showing the level entered and also the slopes of subsequent upward trajectories.

A summary of young adult homeownership rates for the U.S. population is given in Figure 7 (page 158). This figure displays trajectories of homeownership achievement beginning from the year the cohort was ages 25 to 34. (Homeownership is defined as the percentage of householders living in an owner-occupied home.) The early baby-boom cohort began adulthood with a 52 percent homeownership rate in 1980, slightly higher than preceding cohorts. The subsequent cohorts of the late baby boom and Generation X fell to substantially lower initial homeownership rates, lagging more than 5 percentage points behind the early baby boom.

Equally notable is the unusual shape of the homeownership trajectory for the early baby-boom cohort. Although the cohort started with higher initial homeownership in 1980, its trajectory was less steep in the subsequent decade than either the preceding or following cohorts. This indicates that the cohort made slower additional progress between 1980 and 1990 than did

*Figure 7*

**HOMEOWNERSHIP TRAJECTORIES OF COHORTS LAUNCHED INTO ADULTHOOD EACH DECADE, FROM AGES 25–34**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

other cohorts. However, in the 1990s, the early baby-boom cohort experienced a steeper rise than was true for earlier cohorts. Thus, the early baby boom got off to a fast start, slowed down relative to other cohorts in its first decade, and then sped up again in the next decade. The latter relative acceleration was echoed in the 1990s by the rapid increase in homeownership of the late baby-boom cohort.

Three factors could account for this pattern of variable progress across decades. The first factor is the rate at which the price of a house appreciates. During the 1990s, average house prices rose only 3 percent net of inflation—slowing down from the 8 percent increase of the 1980s—thus making homeownership far more affordable (even if the investment incentives may have dimmed). Also, in the late 1990s, interest rates fell to very favorable levels (although not to the historic lows still to come in the early 2000s). Finally, the Clinton administration, aided by the secondary mortgage market brokers Fannie Mae and Freddie Mac, instituted policies after 1995 to promote homeownership among racial and ethnic minorities by increasing counseling services and lowering mortgage-qualifying standards.[23] The result was that both the youngest and older households found it easier to own homes during the 1990s than in the 1980s.

## Homeownership Trajectories by Race and Ethnicity

The above summary suggests a hopeful pattern of progress for the most recent cohorts, but it is not clear if that outlook is shared for all racial and ethnic groups or if it is present only among the best-educated members of the cohorts. A parallel analysis of homeownership trajectories has been completed for each of the four major racial and ethnic groups, showing differences between higher- and lower-educated cohorts (see Figure 8). The left column of plots compares racial and ethnic groups without accounting for education. This pattern shows a slower entry into homeownership among the recent cohorts, followed by a steeper upward trajectory. Overall, non-Hispanic whites begin with higher homeownership rates and climb to higher ultimate levels than the other groups. Latinos start from slightly higher levels than do blacks, but both have lower launching points and flatter upward trajectories than Asians and Pacific Islanders. A positive note is that, among Latino and black cohorts, the late baby-boom cohort achieved steeper increases in homeownership between ages 25 to 34 and ages 35 to 44 (from 1990 to 2000) than earlier cohorts in their racial and ethnic group. This might reflect the workings of Clinton administration housing policies.

## Differences by Education

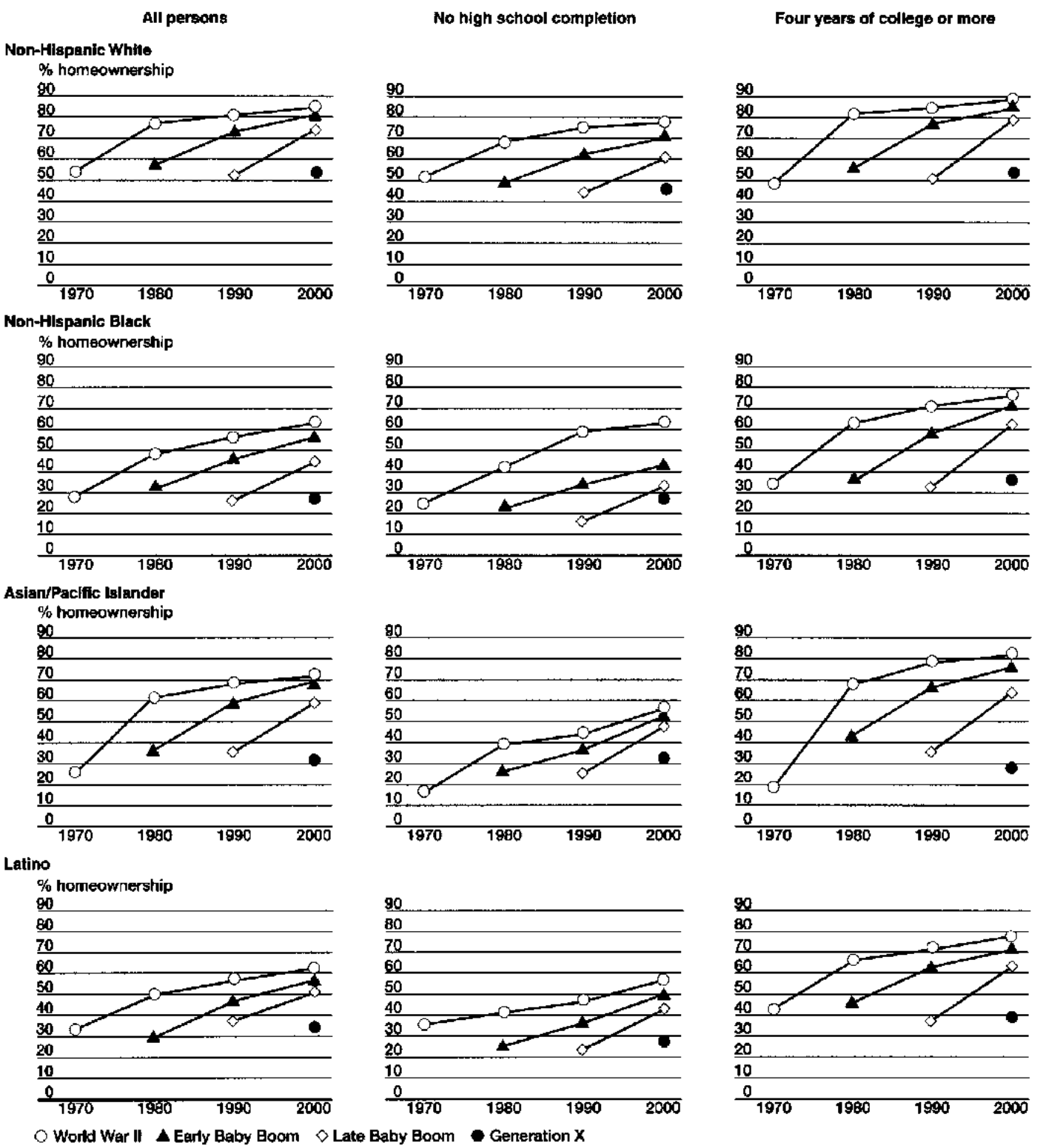
These homeownership achievements differ markedly by educational attainment. Those with college educations are likely to have higher earnings and an easier time qualifying for mortgages. Nonetheless, college education holds students off the labor market longer than it does for less-educated peers, and that delay can produce lower initial homeownership at ages 25 to 34. People without a high school education may also benefit from working in manual trades that hone skills useful for do-it-yourself home construction and remodeling. Thus, many members of the lower-educated cohorts could own a home at an early age, but they are not likely to keep up in terms of household equity with their higher-educated peers in middle age.

Homeownership and race and ethnicity must be considered simultaneously, because racial and ethnic groups have very unequal educational profiles. Accordingly, there is a chance that what seems to be a racial or ethnic difference may be due to education, or vice versa. In this report, two education groups are contrasted: those with four years or more of college, and those with less than a high school degree.

Among non-Hispanic whites, higher-educated cohort members enjoy higher initial homeownership levels and steeper upward trajectories in the following decade than do their lower-educated peers. In both education classes, however, the rate of progress of the late baby boomers exceeds that of the early baby boomers. Also, in both education classes, the Generation X cohort has virtually the same level of initial homeownership as the late baby boomers. This is a welcome sign, as it curbs the decline in initial position that was observed between the early and late baby boomers. One hopes Generation X can also replicate or exceed the progress of its predecessor cohort as well.

*Figure 8*

**HOMEOWNERSHIP TRAJECTORIES OF COHORTS LAUNCHED INTO ADULTHOOD EACH DECADE, FROM AGES 25–34, BY RACE/ETHNICITY AND EDUCATIONAL ATTAINMENT**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

A very similar pattern to that observed for non-Hispanic whites holds for blacks and Latinos. But there is one major exception: The homeownership trajectories for blacks and Latinos begin about 10 percentage points to 15 percentage points lower than the trajectory for non-Hispanic whites. In these groups, the late baby boomers achieved much greater progress in their first 10 years than the progress achieved by the early baby boomers. Among blacks who are college-educated, Generation X has a higher initial homeownership rate than the initial rate for the late baby boomers. Accordingly, among both blacks and Latinos, we find evidence for substantial gains in homeownership across recent cohorts.

In the case of Asian residents, there is an even larger gap in homeownership rates between the college-educated and other cohort members. The higher-educated begin with higher homeownership, and they demonstrate markedly steeper progress. What is alarming about Asian progress is that this group fails to demonstrate an improved position for Generation X; similarly, the late baby-boomer cohort does not show a steeper upward trajectory than what was observed for the early baby boomers. It is likely that this lagging progress reflects the greater weight of immigrant arrivals among Asians (an issue addressed later in this report).

Overall, the homeownership prospects of cohorts depend greatly on their educational status. Cohorts who are better-educated have better occupational and earnings prospects than less-educated cohorts, and better-educated cohorts may also have an easier time getting a mortgage.

### Lagging No Longer

With few exceptions, the youngest generation of adults is no longer lagging behind its predecessors. Educational attainment has increased across successive cohorts, and homeownership has ceased its decline. Recent cohorts also show an even steeper upward trajectory into homeownership than the early baby boomers achieved.

It is too soon to say what the socioeconomic progress of Generation X or its followers will be. However, the initial starting position of this cohort is the most favorable we have witnessed since 1980. It is a hopeful outlook.

## The Effect of Immigration on Measured Socioeconomic Progress

Analysis of the socioeconomic progress of Latinos and Asians is confounded by the large share of foreign-born residents of those two groups, and many of these residents are recent immigrants. Thus, an assessment of the changing population mix and the progress of the foreign-born population is integral to understanding socioeconomic progress for both those minority groups and for the total U.S. population. Indeed, in recent years, some of the deepest concerns about socioeconomic progress in America have been focused on the achievements and well-being of immigrants.[24] (In this report, the terms "foreign-born" and "immigrant" are used interchangeably to describe people born outside the United States or its outlying territories (such as Puerto Rico or Guam), and people whose parents are not U.S. citizens.)

### Reversing the Longstanding Trend of Growing Immigrant Poverty

How immigration alters the perception of socioeconomic progress—and the underlying dynamics of this progress—is well illustrated by the incidence of poverty. Prior to the 2000 Census, despair about the fortunes of immigrants to the United States was fueled in particular by two key poverty indicators. For one, the poverty rate of recent arrivals (entering the United States in the decade preceding each census) had been rising for all immigrants since 1970, including Latinos and Asians. Recent immigrants had poverty rates of 15 percent, 23 percent, and 25 percent in 1970, 1980, and 1990, respectively. Latino newcomers had poverty rates of 21 percent, 28 percent, and 32 percent in 1970, 1980, and 1990, respectively. The poverty rates for Asian newcomers were 15 percent, 20 percent, and 22 percent in 1970, 1980, and 1990, respectively. Until 1990, poverty was clearly on the rise for newcomers to America.

A second basis for concern was that the total poverty rate of all foreign-born residents, particularly Latinos, had also steadily risen between 1970 and 1990. Among all the foreign-born, the total poverty rate rose from 14 percent in 1970 to 16 percent in 1980, and then to 17 percent by 1990. Among foreign-born Latinos, the rate increased from 21 percent in 1970 to 23 percent in 1980, and then to 25 percent in 1990. In contrast, the overall poverty rate of foreign-born Asians rose from 13 percent in 1970 to 16 percent in 1980 before leveling off at 16 percent in 1990. In sum, immigrants had experienced rising poverty rates, and the growing number of immigrants threatened economic progress for the nation.

One welcome finding from the 2000 Census is that the poverty rate of new arrivals and of all foreign-born residents in general has decreased since 1990. The poverty rate of new arrivals in the decade prior to 2000 decreased by nearly 2 percentage points, reversing a longstanding upward trend. This improvement for newcomers may be due to lower unemployment in the late 1990s versus the late 1980s. The higher status of newcomers in 2000 could also reflect the effects of stronger border enforcement, which has the effect of selecting migrants with greater economic resources.

A second finding from the 2000 Census is that the total poverty rate of all foreign-born also decreased for the first time in decades, albeit slightly. This overall improvement was a combined result of several forces. One reason the improvement was not greater is that Latinos' share of all immigrants increased from 38 percent to 44 percent, thus placing a greater weight on their higher poverty in forming the average for all immigrants.

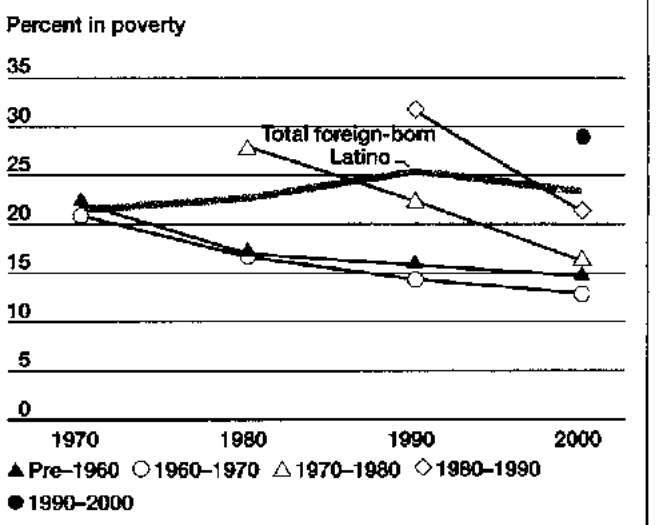
## Cohort Trajectories, Sizes of Arrival Cohorts, and Total Change

The explanation for the declining overall poverty rate of the foreign-born rests partially on the improving fortunes of newcomers; other explanations include the pace of upward mobility for previously arrived immigrants and the relative size of different arrival cohorts within the overall foreign-born population. Understanding an immigrant's progress out of poverty is an excellent application of the cohort framework, which emphasizes launching points and subsequent trajectory slopes of lifetime progress, combined with the effects of cohort succession as newer cohorts replace earlier ones. The emphasis here is somewhat novel because the literature on cohorts and socioeconomic progress has not traditionally focused on immigrant arrival cohorts. Data on year of arrival were absent from the census for most of the 20th century, and these data were not reintroduced until 1970; studies using the new data emphasized technical analyses in labor economics conducted apart from the broader cohort tradition.[25] In fact, data on immigrant year of arrival may be used to construct arrival cohorts in a fashion nearly as accurate as for birth cohorts.

Especially noteworthy in such an analysis of poverty rates and trajectories of improvement are the substantial downward slopes of immigrant cohorts' subsequent poverty trajectories as the cohorts reside longer in the United States. The example of poverty rates for Latino immigrant arrival cohorts illustrates this clearly (see Figure 9). Among Latinos who arrived in the 1980s, the poverty rate recorded in 1990 was 33 percent; the rate dropped to 22 percent by 2000. These downward poverty trajectories measure the pace of upward mobility within the lifetime of each immigrant arrival cohort. The declines among Asians are even steeper during their first full decade living in the United States. The longer immigrants settle in the United States, the better adapted they become economically. It takes time to "learn the ropes" and find employment in favorable occupations. By virtue of their migration, the cohort is economically dislocated, and the largest amount of status recovery occurs in the first decade of U.S. residence, with slower improvement thereafter.

*Figure 9*

**POVERTY TRAJECTORIES OF LATINO IMMIGRANTS BY DECADE OF ARRIVAL, COMPARED WITH THE OVERALL TREND IN FOREIGN-BORN LATINO POVERTY**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Despite these sharp reductions in poverty as immigrants settled for longer periods of time in the United States, the total poverty of the foreign-born continued to rise, at least until 1990. At the same time that the total poverty rate was rising, all the cohorts were experiencing downward trends in their poverty rates (see Figure 9).

A question to ask is: How much of the improvement between 1990 and 2000 in poverty for immigrants is due to the lower poverty of recent arrivals in 2000? Alternatively, we might ask: How much of the downturn is due to the improvement enjoyed by previously arrived immigrants, as signified by the downward sloping poverty trajectories from 1990 to 2000? Or: How much of the decline is due to changes in the mix of foreign-born with varying amounts of duration of residence in the United States (how many are newcomers versus settled immigrants)?

A separate analysis shows that the overall decline in foreign-born poverty between 1990 and 2000 results from offsetting factors. The poverty rates for all groups were affected by the continued growth in immigration, because immigrants who are in this country for less than 20 years generally have higher poverty rates than the average for all foreign-born. If this growth effect were the only factor, poverty rates would have climbed more than 3 percentage points for all foreign-born.

Fortunately, new arrivals in the 1990s had lower poverty rates than those arriving in the 1980s. Weighting

these declines by the relative numbers of new arrivals versus settled immigrants, the lower poverty rates of new arrivals contributed to a reduction of anywhere from 0.5 percentage points to 2.0 percentage points in the groups' overall poverty rate. However, an even larger downward effect was wielded by the poverty reduction among previously arrived immigrants. The downward sloping trajectories shown previously are a considerable force. After weighting for the relative size of each cohort, the effect of poverty improvement among the settled immigrants is to reduce the groups' overall poverty rates by 3 percentage points to 4 percentage points.

In the data for the four racial and ethnic groups examined here, the effect of poverty reduction among the settled immigrants is the largest factor; when that factor is combined with a reduction in the initial poverty of new arrivals in the 1990s versus those who arrived in the 1980s, the two factors offset the pressure of mounting numbers of new immigrants. The pattern is remarkably similar for every group. The upward mobility of previously settled immigrants is a pervasive force in reducing poverty.

### What is the Trend of Poverty for Immigrants?

Our analysis shows that the trajectory of immigrant poverty could be characterized by three different trends. Political commentators often seize on one or another of these trends to depict the prospects for the immigrant population:

- *Aggregate trend.* From 1970 to 1990, the overall poverty rate of the foreign-born rose 3 percentage points; but between 1990 and 2000, the poverty rate fell by 0.3 percentage points (2 percentage points for Latinos). Does that mean immigrants are doing better than before?
- *Poverty of new arrivals.* From 1970 to 1990, the poverty rate of recently arrived immigrants increased 9 percentage points, but that rate fell by 2 percentage points (3 percentage points for Latinos) between 1990 and 2000. Is poverty of new arrivals decreasing?
- *Poverty of settled immigrants.* From 1970 to 2000, the poverty rates of settled immigrants decreased by 10 percentage points or more, especially for immigrants with fewer than 20 years' residence in the United States. Does that mean immigrants are doing better over time?

During the 1990s, all the poverty measures pointed to improvement. However, before 1990, only the settled-immigrant trend led to poverty declines. If we wish to represent the average experience of settled immigrants, the cohort poverty trajectories provide the best measure. If we wish to represent the trend in immigrant newcomers' status, then the poverty rate shortly after arrival is the best measure. Finally, if our focus is on the overall status of the immigrant population, we need to recognize how this overall status is a composite of the other trends, each of which is weighted by the relative sizes of different cohorts in different stages of settlement.

## Immigrant Age and Arrival Cohort Trajectories

The previous section addressed the socioeconomic progress of immigrant arrival cohorts irrespective of age. But age is often as important for immigrants as for U.S.-born residents. Not only does immigrants' socioeconomic status improve with age, as it does for U.S.-born residents, but immigrants' eventual socioeconomic status also depends on how old immigrants were when they arrived in the United States and how long they have lived here. In general, immigrants reach higher status levels the younger they are at arrival. For example, men and women in their 20s achieve greater economic success than those arriving in their 30s, and those arriving as children do best of all once they reach middle age. This illustrates again the power of cohort-defining events. The act of moving from a foreign country to the United States is a signal event in people's lives, the timing of which has substantial consequences.

How fully are immigrants able to move into the middle class? Answering this question is among the richest and most rewarding applications of the concept of cohorts to analysis of socioeconomic progress. Escape from poverty is only one criterion of socioeconomic advancement. Homeownership is widely regarded as a prime indicator of middle-class status. Homeownership also differs from poverty in that it is cumulative and slowly changing over the lifetime. Typically, the highest levels of homeownership are attained late in life, and the trajectories established as young adults lay the foundation for future higher or lower homeownership levels.

### Homeownership and Immigrant Assimilation

Assimilation of immigrants is a process that results from the growing experience of immigrants in the U.S. society and economy. The process continues into the second and third generations of settlement, as the children and grandchildren of immigrants continue to adapt. Assimilation results in social incorporation, economic integration, and a lessening of ethnic differences. In a recent review, Richard Alba and Victor Nee define four key dimensions of assimilation: acculturation, socioeconomic achievement, residential integration, and social integra-

tion.[26] Of these four dimensions, socioeconomic achievement is of greatest concern in this report.

Homeownership occupies a pivotal position in the assimilation process. Often one of the principal economic objectives of immigrants, homeownership is a prime indicator of socioeconomic achievement. Because it is so commonly achieved, homeownership does not represent an elite status, as do certain higher-level occupations; instead, homeownership signifies entry into the middle class. Homeownership is also important because it represents a central element of family life. The home is the staging ground for a family's daily trips to work, to school, and to neighborhood socializing. Home purchase buys a stake in a particular community and school system, so homeowners acquire an economic interest in their communities that encourages political participation.[27] Homeownership fosters residential assimilation, bringing the family into contact with higher-status members of society, often from different ethnic backgrounds. The benefits of homeownership are transmitted across generations because children growing up in these homes have improved access to a middle-class lifestyle and the mainstream of society. Ultimately, this intergenerational transmission facilitates both acculturation and social integration.

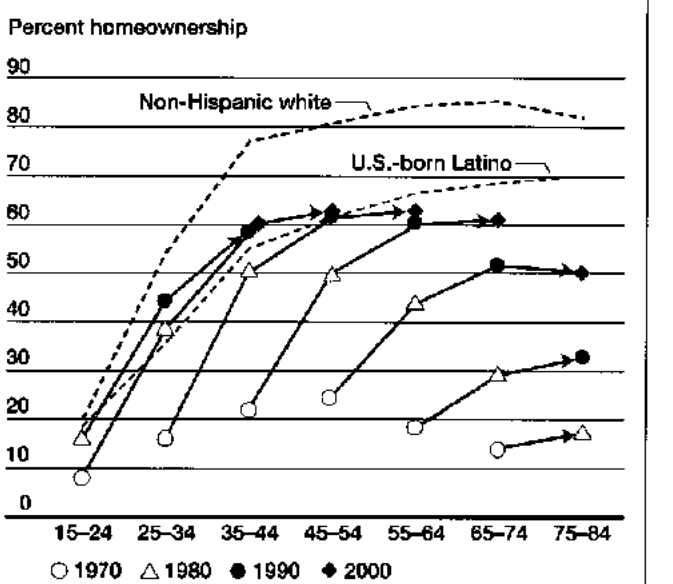
## Cohort Age Trajectories of Homeownership

The following analysis makes use of the "double cohort" design that tracks birth cohorts within immigrant arrival cohorts, albeit in a descriptive (not statistical) variation of the method.[28] Among immigrants, added factors are the length of time since immigration and the age at arrival. In this report, a unique graphic design shows trajectories across multiple dimensions as Latino immigrant cohorts pass through successive age groups in successive decades. To place these multiple immigrant trajectories in context, we have superimposed the homeownership trajectories for U.S.-born non-Hispanic whites and Latinos who were ages 25 to 34 in 1970.

The longest history of homeownership is that of immigrants who arrived in the 1960s. The homeownership status of these immigrants was recorded between 1970 and 2000 (see Figure 10). Among Latinos, trajectories rise sharply from low initial homeownership rates, especially for those younger than 45 at time of arrival (indicated by their age in 1970), given their length of residence in the United States.

People who immigrate later in life do not have time to reach the high homeownership rates of those who come at younger ages. For example, the 1960s arrivals who arrived at ages 25 to 34 reached 60 percent homeownership by ages 55 to 64. Those who arrived at ages 35 to 44, although starting with higher initial homeownership than the younger group, only reached 58 percent homeownership by ages 55 to 64. And those who arrived at ages 45 to 54, while they had a still higher initial level than their younger peers, only reached 43 percent homeownership by ages 55 to 64.

*Figure 10*
**LATINO IMMIGRANT COHORT TRAJECTORIES INTO HOMEOWNERSHIP, 1960S ARRIVALS**




Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

The findings for Asians are very similar to those for Latinos, but there are a few major differences. First, Asian immigrants have homeownership rates substantially higher than those of Latinos.

Second, Asian immigrants ages 25 to 34 exhibit very steep upward homeownership trajectories in their first complete decade of U.S. residence. Among 1960s arrivals, that steep trajectory amounts to a 64 percentage point rise in homeownership (versus 34 percentage points for Latinos).

So high is initial homeownership among Asians, and so steep are their trajectories, that Asians rapidly surpass 70 percent homeownership, after which their trajectories abruptly flatten out or even turn downward.

## The Trajectory of Immigrant Children

Although the success of immigrant children is not revealed until decades after arrival, evidence of this achievement can be found as arrivals from the 1960s approached middle age. The youngest immigrant children from that era are the equivalent of a U.S.-born second generation. Their mothers gave birth to them five years before immigrating instead of five years after.

Either way, these children would have entered U.S. schools from the first grade. Indeed, these immigrant children are often called the "1.5 generation," and they are pooled together with the second generation in many studies.

The new second generation (U.S.-born children of immigrants) commands attention because their fate signifies the ultimate success of the current wave of immigration.[29] However, the second generation is not specifically identified in the census, and alternative data sources that contain information on the second generation (the largest of which is the Current Population Survey) lack sufficient sample size to permit analysis of specific age groups within ethnic groups. Accordingly, this report assumes that the cohort trajectories showing the 1.5 generation with census data may be the best available proxy for the trajectories of the true second generation.

The youngest members of arrival cohorts ultimately rise to homeownership levels comparable with U.S.-born Latinos and Asians. This phenomenon is best observed in the case of 1960s arrivals. Those people ages 35 to 44 in 2000 would have been ages 5 to 14 in 1970 after their arrival. These immigrant children grow to have homeownership levels that are tracking equal to or above the trajectories shown for U.S.-born Latinos in Figure 10.

As these data on homeownership attainment make clear, the new second generation, or at least its 1.5-generation proxy, is faring very well among both Latinos and Asians. This offers a relatively more optimistic outlook than suggested by other, more pessimistic interpretations of prospects for the second generation. But a more detailed analysis is clearly needed, one that examines different nationality groups of Asians and Latinos and several different outcome variables of socioeconomic progress or assimilation.

### Summary

This analysis of homeownership trajectories of immigrants has exploited the full potential for cohort analysis of evidence contained in the decennial censuses. The repeated collection of census data in temporal categories allows for construction of cohorts that link these observations. This summary traces both the arrival cohorts and the birth cohorts within each arrival cohort.

Foreign-born residents pass through many of the same life-cycle dynamics as U.S.-born residents. One major difference is that immigrants' arrival is not marked by their birth but by migration after birth. Accordingly, we cannot assume that immigrant residents have lived through the social, political, and economic conditions prevailing in different decades. Those who arrived in the United States in the middle of their lives have skipped the early decades of experience shared by others in the same birth cohort.

Given the growing share of foreign-born residents among adult cohorts, especially among Asians and Latinos, it is important to expressly identify this group's socioeconomic progress. The dynamics revealed are among the most fascinating of any population group.

## Outlook for Socioeconomic Progress

Cohort trends help us to better understand the American people's experience of socioeconomic progress. Using this perspective, we have learned about accumulated progress over lifetimes, the progress across generations, and the prospects for the future. We also have seen how the insights from cohorts differ from the misleading conclusions drawn from single historical snapshots or from simple trends over time.

### Major Findings

The great strength of cohort analysis is the ability it gives researchers to trace persistent effects across decades as cohorts grow older. The educational advantages of more recent cohorts will surely last a lifetime, as will homeownership; but the latter also reveals evidence that past deficits can be somewhat compensated for by more rapid lifetime progress in subsequent years. However, the flip side of the advantage of cohort analysis is its blind spot for the status of future new cohorts. Since we have so little information on new cohorts (save for cohort size), we must be especially observant of trends. The launching points for life trajectories of cohorts just entering adulthood or just entering the United States are crucial to their future success.

Looking ahead to 2010 and 2020, when the World War II and early baby-boom cohorts will have entered their elderly years, what trends do we foresee in their status? These cohorts, now middle-aged, have substantial advantages over their predecessors. Comparing the cohorts when they were all ages 45 to 54, albeit in different decades (1980, 1990, and 2000), we see substantial gaps in high school completion. These gaps are being carried into cohorts' elderly years, so that the cohort scheduled to reach ages 65 to 74 in 2010 has high school completion rates 12 percentage points higher than does the elderly cohort of 2000. The still younger cohort (early baby-boom) has high school completion rates 20 points higher than does the elderly cohort of 2000. Similar gaps are also found for college completion rates, indicating that the future elderly population will have rising educational status.

The outlook for homeownership and poverty at ages 65 to 74 is much less certain. The gaps in homeownership trajectories observed at ages 45 to 54 are

much smaller than for education. Indeed, the cohort that had advanced to ages 65 to 74 by 2000 actually had slightly higher homeownership rates than its successors at ages 45 to 54. If anything, this suggests that the future elderly population may have slightly lower homeownership rates. The evidence for poverty is even less clear, in part because this status is more changeable over time. It appears, however, that the early baby-boom cohort (ages 45 to 54 in 2000) may be tracking on a lower poverty trajectory than either of its predecessors.

The question of immigrant upward mobility is important in its own right, and has drawn widespread concern recently. Immigrants' poverty levels are extremely sensitive to time dimensions. In every decade, the newest immigrants have the highest poverty, but poverty declines for each cohort of new arrivals the longer they reside in the United States. The rapid growth in the number of new arrivals means that each decade's foreign-born population includes a high proportion of people with a relatively high likelihood of living in poverty. This compositional effect creates the illusion that poverty is rising for the foreign-born and obscures the underlying lifetime trajectory of upward mobility for immigrant arrivals. Similar issues are raised for immigrant homeownership, although our findings on that topic add still more time dimensions: age at arrival and advancing age that accompanies longer duration in the United States.

## Matching Rhetoric to Reality

No longer does it make sense to speak so simply about socioeconomic progress over time. There are multiple dimensions of time across which progress is measured, and the trends do not all run in the same direction. Our language and conceptualization of socioeconomic progress are intertwined, because how we think about progress depends on the words we have available to describe it. Without a clear grasp of the alternatives, politics can bias any interpretation, as one dimension or another is seized upon.

Based on the findings in this report, we should reflect upon the following:

- Does the average for a population reflect the average person's experience over time? For example, is it really true that a declining median age for the population means that most people are getting younger? The average may fall, but cohorts still grow older.
- If educational attainment declines for older age groups, does that mean people lose their education as they grow older? Obviously not. Rather than an age cross-section, we need to trace cohorts as they advance through age groups over time. That analysis shows that education is relatively fixed for each cohort after age 25. The age cross-section is reflecting differences between cohorts, not aging within a cohort.
- If educational attainment holds constant, does that mean there is no progress for cohorts? It may show there is no *lifetime* progress within cohorts' careers, but there can still be substantial *generational* progress among successive cohorts.
- If homeownership attainment is declining for the most recent cohorts, does that mean that young adults are experiencing lower homeownership rates? This case shows downward mobility across cohorts, even though each cohort is experiencing sharp upward mobility.
- What of immigrant poverty, which has been steadily rising since 1970? Does this trend mean that immigrants are losing ground and failing to assimilate economically? Our evidence shows that immigrants experience strong upward mobility as U.S. residents, but the growing number of new immigrants skews the average poverty rate toward the higher poverty of newcomers. Again, the average figure does not represent the average experience.

Overall trends in averages are widely used to describe the experience of people, but the actual language chosen to interpret the trend usually emphasizes the experience of individuals. These trends, of course, would be more truthfully represented by the slopes of cohort trajectories (lifetime progress), or by the gaps between cohort trajectories (generational progress or cohort succession). The journalist, policy analyst, or advocate owes this clarification to his or her audience. And the audience has every right to question intent. Only through this clarification and questioning will we reach an accurate understanding of socioeconomic progress and its implications for American society.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# PART III

## FAMILIES, HOUSEHOLDS, AND CHILDREN

# Marriage and Family in a Multiracial Society

*By Daniel T. Lichter and Zhenchao Qian*

## Background

Today's American family is hard to define. The so-called "traditional family"—working husband, his stay-at-home wife, and their children—represents only a small fraction of all American households. In "Leave It to Beaver," the popular late-1950s television show, the Cleaver family—Ward and June and their children Wally and Theodore ("the Beaver")—epitomized the American dream of economic success, a happy marriage, loving parents, respectful children, a nice house in the suburbs, and a big car in the garage. But the Cleaver family model represents only about 10 percent of all households today. The most popular television shows in recent years were about urban single people: "Seinfeld," "Friends," and "Sex and the City."

Television shows undoubtedly reflect America's changing family and demographic profile. Marriage rates have plummeted. Unmarried cohabitation has supplanted marriage as the first coresidential union for most young adults. Married couples have only one or two children, some couples have no children, and out-of-wedlock childbearing has become common. Many couples get divorced, yet many divorced people marry again and begin new families. Serial monogamy may have become the new norm. Many gays and lesbians seek legal changes that would allow same-sex marriages or civil unions that include the same rights and benefits enjoyed by heterosexual couples.

These general demographic trends are no longer news to most of us. In fact, we are often inured to them, mostly because we have experienced them firsthand. Preachers, politicians, and pundits worry that the decline in marriage and the breakdown of the traditional family are responsible for many societal ills: child poverty, racial inequality, delinquency, mental illness, and moral decay. Some people look back nostalgically to the old ways. Others are more sanguine, viewing today's family patterns as a natural response to relentless cultural or economic pressures in our fast-paced society that make marriage less central in people's lives or more difficult to maintain.

History tells us that family change is inevitable and often adaptive, and therefore should not be a source for alarmist rhetoric. Family change may also be the price of personal freedom and the rise of individualism over communalism. It also reflects growing gender equality both in the home and in the workplace, as well as changing economic exigencies of modern American life, such as geographic mobility and job dislocation, work-family imbalances, and work-related stress. Sociologist Andrew Cherlin has argued that most Western societies have moved to "individualized marriage," placing much greater emphasis on personal choice and self-development rather than companionship.[1] He suggests that marriage is being deinstitutionalized, which simply means that the family values and norms that proscribe appropriate behavior regarding mate selection processes, gender relations, and marital interaction have weakened. The rules of courtship and marriage are less widely shared today.

Debates about cultural and family values require up-to-date information on America's changing marriage and family patterns, especially in light of rapid demographic and economic shifts over recent decades. More than ever before, these debates must also be informed by America's new racial and ethnic mix and its distinctive family forms. National statistics on marriage and living arrangements may misrepresent or even distort the family circumstances of many average Americans, especially racial minorities and recent immigrants from Latin America and Asia. Foreign nationals and other immi-

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grants living in the United States often remain separated in fundamental ways by race and ethnicity, national origin, social class, and geography. Family forms and relationships often differ widely from one group to another; but, as history shows, these forms and relationships also can converge quickly over time as social mobility and economic assimilation take root. Growing racial diversity makes it difficult to project the future of the family in the United States. One type of family (U.S.-born whites) is becoming less dominant, and the future characteristics of the family will increasingly be influenced by what minority families look like and do.

America can no longer be viewed in simple black and white terms; the fastest-growing segments of the U.S. population must not be ignored in the family debate or in family policy. The 2000 Census revealed that Hispanics were replacing non-Hispanic blacks as the largest minority in America. By 2002, the foreign-born population numbered 33 million, or more than 11 percent of the total population.[2] Hispanics accounted for 52 percent of this total. When we add U.S.-born children of foreign-born parents, these numbers increase even more dramatically. For example, recent estimates suggest that these second-generation children of immigrants represented 15 percent of the U.S. population under age 18.[3]

This report provides a comprehensive demographic portrait of recent changes in the contemporary American family, with special emphasis on racial and ethnic diversity. We will answer four questions:

- To what extent have marriage and families in America changed over the past few decades? As background, we first provide an overview of why marriage matters, along with a discussion of current key trends in the family and the demographic and economic processes that undergird these trends.
- To what extent has the "retreat from marriage" continued in the 1990s for different racial and ethnic groups? Guided by data from the decennial censuses, our analysis and discussion will focus on the timing of marriage—especially entry into marriage—and permanent singlehood.
- To what extent have new or different family forms become more prevalent in the United States? We document the proliferation of new family forms across racial and ethnic groups: cohabiting couples (with and without their own children); female-headed families with children; father-headed families; female provider/male homemaker families; and multigenerational families. We also illustrate the effects of family change on children's poverty and economic status.
- To what extent have racial and ethnic minorities crossed the "color line" by marrying people of different races? We examine patterns of marital assimilation; in other words, if the family-building strategies of today's new immigrants and racial minorities mirror those of the U.S.-born population. Do immigrants wed U.S.-born Americans in small or large numbers? Do immigrants marry within or outside "color lines"? The answers tell us about social distance and race relations in America—whether racial lines are blurring or are remaining sharp and difficult to cross.

To fully understand today's families and tomorrow's future requires a fuller appreciation of the different cultural traditions rooted in the marriage patterns and family lives of America's racial and ethnic minorities. As in the past, America's next generation of adults promises to be very different from the current one, especially if intermarriage among groups accelerates. When today's children and youth grow into adulthood and start families of their own, their definitions of the ideal family are likely to differ from their grandparents' or even their parents'.

The 2000 Census provides an unusual opportunity to highlight family and household diversity in our increasingly multicultural and multiethnic society. Most surveys, even large ones, simply do not provide samples of sufficient size for some population groups (such as Koreans or Puerto Ricans) to give reliable family indicators for these groups. The usual, but often unsatisfactory, practice is to identify and analyze various panethnic groups, such as Asian Americans and Hispanics, that include smaller populations that may or may not share common cultural traits or economic circumstances. The Public Use Microdata Sample (PUMS) from the 1990 and 2000 U.S. censuses, because of its large sample sizes and national geographic coverage, provides an unprecedented opportunity to uncover major changes in the American family.

But, what is a family? The U.S. Census Bureau uses a very specific definition of households and families. A *household* contains all people living in a housing unit. Households are distinguished by whether they are family households (or families) or nonfamily households. A *family* includes household members who are related by blood, marriage, or adoption, and who share a common domicile. *Family households* include families in which a family member is the householder—the person who owns or rents the residence. These households can also include nonfamily members, such as a boarder or a friend. A *nonfamily household* includes the householders who live alone or who share a residence with individuals unrelated to the householder, such as two college friends sharing an apartment. Some nonfamily households sometimes substitute for traditional families and serve many of the same functions: Same-sex couples are one example. Close friends living together also sometimes regard themselves as a family, but this type of household does not satisfy the Census Bureau's strict definition.

## Why Marriage and Family Matter

Attitude surveys indicate that the large majority of Americans expect to marry, and most will marry at some point in their lives.[4] Survey data indicate that, in 1997 and 1998, 72 percent of respondents reported that "having a good marriage and family life is 'extremely important.'"[5] At the same time, Americans are more tolerant today than in the past about alternative living arrangements. The stigma associated with single motherhood, unmarried cohabitation, and gay unions has lessened. Perhaps paradoxically, this increased tolerance has validated the significance of marriage as a freely chosen lifestyle decision rather than as a normative "requirement" or an expectation. Choosing to marry or not is a life-changing decision. Indeed, the symbolic significance and cultural meanings attached to marriage have perhaps never been more important to average Americans, or more hotly contested.

Disagreement about the significance of declines in marriage and traditional families is at the heart of the broader debate about the culture wars in America.[6] Many view the decline in marriage and the family as a cause of society's most pressing social problems. For example, delays in marriage, coupled with earlier and more frequent nonmarital sexual activity, have placed young women at much greater risk of out-of-wedlock childbearing than in the past. But, declines in marriage and marital fertility, not increases in nonmarital fertility, are most responsible for the post-1960s rise in the share of out-of-wedlock births.[7] Roughly one of every three births in the United States occurs outside of marriage, mostly to single women in their late teens and early 20s. Not so long ago, a pregnant teenage girl would have to leave her home and community, returning only after her baby was born and given up for adoption.

There also was a time when the woman married the man if she became pregnant with his child, but these marriages are no longer the cultural norm or viewed as necessary to legitimize the birth of the child. Demographer R. Kelly Raley has shown that, in the early 1990s, only about one of every 10 pregnant women ages 15 to 29 married before the birth of their babies.[8] The corresponding figure in the early 1970s was four of every 10.

High divorce rates have reinforced the rise in female-headed families. Nearly one-half of all marriages end in divorce.[9] More than 1 million marriages end in divorce each year.[10] About one-half of all divorces involve children, who usually live with their mothers despite recent increases in joint custody arrangements. The economic implications of these trends are obvious and serious. In 2002, about 40 percent of children living with single mothers fell below the poverty line.[11] The rise in female-headed families with children is associated with higher rates of family and child poverty and welfare dependency. And the growth in female-headed families with children—growth that occurred disproportionately among historically disadvantaged racial and ethnic minorities—has slowed progress toward racial economic equality.[12] Understanding family change is arguably key to better understanding racial inequality, but researchers disagree on the direction of this association and whether it is causal. One theory is that racial economic inequality is the cause for existing racial differences in marriage and family structure.

Other deleterious effects of family change are largely indirect, but nonetheless important. Children and adolescents raised in married-couple families have, on balance, clear emotional and cognitive advantages over children from single-parent families.[13] Youths who grow up in single-parent families are at greater risk for delinquency, school dropout, and teenage pregnancy and childbearing. Children who live with stepparents fare no better than children living alone with single parents. For adults, marriage appears to confer physical and emotional health advantages and promotes longevity; marriage provides social support and buffers the deleterious health effects of stress. Marriage also appears to make men more productive in the workplace.[14] This large body of empirical evidence is now difficult to ignore. Yet, the health and productivity effects of marriage may also simply reflect the self-selection of healthy and productive people.

Not surprisingly, the widely acknowledged statistical association between marriage and positive social and economic outcomes has given impetus to the marriage movement. We see this in men's groups such as the Promise Keepers; in nonprofit organizations like Smart Marriages; in rallies like the Million Man March; in the proliferation of faith-based initiatives that aim to strengthen traditional marriage; and in new legislative efforts to legally define marriage as only between a man and a women.[15] Indeed, we see increasing government involvement in family life. The 1996 welfare reform law, the Personal Responsibility and Work Opportunity Reconciliation Act, included among its goals the promotion of marriage as a context for childbearing and childrearing. The new law encourages the formation and support of two-parent families and promotes job preparation, work, and marriage. Many Americans believed that the old welfare system (administered through Aid to Families with Dependent Children) trapped families in poverty and reinforced an antifamily subculture that encouraged out-of-wedlock childbearing, single parenting, and welfare dependency. To date, however, welfare reform has apparently had only a modest, if any, effect on promoting marriage and two-parent families.[16] Goals of the reauthorized welfare bill, as currently proposed by the U.S. Congress, place less emphasis on marriage *per se* but more on "healthy marriages" that are emo-

tionally satisfying and financially secure, and are beneficial for children.

Other official efforts to promote marriage have sought to remove its existing economic disincentives. These efforts include eliminating the marriage penalty in the tax code and in the Earned Income Tax Credit for low-income workers with children, and upping the earnings disregards of husbands (income counted against the welfare grant) in determining women's eligibility for welfare under Temporary Assistance for Needy Families (TANF). Some states have sought to reduce divorce rates by providing marriage preparation and enrichment courses that emphasize relationship skills and conflict management. But critics argue that such proposals are unlikely to gain widespread public approval or be successful because they ignore structural conditions (such as a bad economy) that predispose couples to greater conflict. Covenant marriages, such as the recent marriage legislation initiated in Louisiana, give couples greater opportunity to strengthen their commitment to marriage and make it more difficult to dissolve because of longer waiting periods for divorce. To date, however, few couples have chosen covenant marriages, and these marriages have not been shown to lower divorce rates.[17]

The politics of family changes have also been disconcerting to many social and political observers. Policy debates are often contentious, and appropriate policy courses often lack clear and widely shared goals. But marriage is likely to continue to occupy a distinctive place in the lives of most Americans. Most Americans seem to understand the positive economic, social, and psychological benefits of marriage; they also understand that children benefit from being raised in economically stable and loving married-couple families. Even poor single mothers do not have to be convinced of the value of marriage.[18]

Opponents of government programs that promote marriage fear government intrusion into their private lives, and they fear that official efforts to promote marriage will unfairly privilege marriage at the expense of other viable personal and family relationships, such as single-parent families, cohabiting couples, or same-sex couples. These observers worry that abused women will face new obstacles to ending bad marriages or will be forced out of economic necessity to stay in relationships that neither benefit them nor their children. They are also concerned about the reemergence of patriarchy and traditional views of marriage that historically undermined women's equality in the home and workplace. But these scenarios are unlikely. The American public gives little indication that they want to return to the days when the rules of courtship and marriage, gender relations, and appropriate marital roles were clearly defined. Those days are now viewed as overly restrictive, old-fashioned, and sexist.

# Families in America

The American family has experienced major changes over the past 25 years. But in *Continuity and Change in the American Family*, authors Lynne Casper and Suzanne Bianchi refer to a "quieting" of family change over the past several years.[19] Some trends, such as the rise in female-headed families, have slowed or even reversed for some groups. Some analysts claim that divergent trajectories of American family life are rooted in the unequal economic fortunes and access to opportunity of different segments of American society. Harvard professors David Ellwood and Christopher Jencks, for example, argue that income inequality has inevitably led to growing differences in marriage and family structure across population groups.[20] Ellwood and Jencks worry that current economic trends not only disadvantage those at the bottom of the income distribution but also reduce one's chances for marriage and for raising children with an economically and emotionally supportive spouse or partner.

More than ever before, merchants and marketers also have both the interest and the ability to target particular ethnic and economic segments of the American population, thus potentially crystallizing differences between groups rather than fostering cultural homogeneity or even assimilation. For example, the programs on Spanish-speaking television stations in most large cities reflect and reinforce distinct cultural values and appetites. The growing diversity and economic balkanization of American family life also is evident in less obvious ways. In 2000, labor force participation rates among mothers in white middle-class couples declined for the first time in decades.[21] Yet the growth of low-wage jobs and the new work requirements of recent welfare reform legislation pushed employment rates among single mothers to an all-time high.[22]

## Recent Trends

The typical or average American family is difficult to characterize accurately. In this report, we discuss five trends that have reshaped American families and households over the past 20 years: the decline in traditional families; delayed marriage; the rise in single-parent families; more individuals living alone; and the surge in the number of cohabiting couples.

### Decline in Traditional Families

One marker of the changing American family is the decline in the share of families and households headed by married couples. In 1970, 71 percent of all American households were headed by married couples. By 2000, the percentage had dropped to 53. More significant, married couples today are more likely than in the past to be dual earners and to have no children. The percent-

age of married-couple families with children has declined over the last three decades. In 1970, 25 million married-couple families included children. In 2000, the number remained largely unchanged but represented a much smaller percentage of all married-couple families or all family households.

These patterns reflect increases in childlessness, but the patterns also are the result of more effective control of unwanted fertility—especially at older reproductive ages—through modern contraception, voluntary surgical sterilization, and legal abortion. Increases in life expectancy also mean that growing shares of married couples have, literally and figuratively, survived the childrearing stage. Their children have grown up and moved away. Married couples may have half a lifetime to spend together without dependent minor children.

### Delays in Marriage

Without question, the decline in the traditional American family has been shaped by the retreat from marriage. The marriage rate (marriages per 1,000 unmarried women) declined from 76 in 1970 to 54 in 1990, according to the National Center for Health Statistics. This means that only about 5 percent of unmarried women marry in a given year. On the other hand, from 1960 to 1980, the divorce rate increased from 9 to 23 divorces per 1,000 married women, and this rate has remained relatively constant and high. For women who married in the late 1970s, 39 percent divorced within 10 years, a figure much higher than for women who married in the late 1940s (14 percent).

Between 1970 and 1990, the remarriage rate among divorced women dropped from 123 to 76 per 1,000 divorced or widowed women. Despite this drop, more than one-half of those who had previously divorced were remarried in 1996.[23] About nine in 10 remarriages followed a divorce rather than the death of a spouse. Most remarriages took place within three years of divorce. For a large percentage of Americans, getting a divorce does not deter them from trying marriage again: Divorce rates are no lower for second marriages than for first marriages.[24]

America's retreat from marriage is revealed most easily in the changing marital status composition of the adult population. The percentage of American women who are married declined only modestly from 56 percent in 1970 to 52 percent in 2000, while the percentage of divorced women grew from 6 percent to 13 percent. Data on marital status by age are more dramatic. Young adults are much less likely today to be married. Among women ages 20 to 24, for example, the percentage of never-marrieds grew from 36 percent in 1970 to a stunning 73 percent in 2000. Among women ages 30 to 34, an even larger gap exists between 1970 and 2000—from nearly 11 percent never married to 39 percent never married. Americans today clearly are less likely to get married at younger ages.

As a result, the entry into marriage is less useful today as a key marker of adult status. In the past, marriage typically coincided with leaving home for the first time and the end of formal schooling. Marriage also began one's regular sexual activity and childbearing with the only intimate partner young adults would have in their lifetimes. Today, most young adults have had sex before marriage, often with several different partners. Most young adults will leave home long before they marry, and a significant percentage will experience pregnancy and childbirth before marriage. The end of formal schooling no longer segues directly into marriage, but typically begins a period of single living and personal independence.[25] More formal education, strong career aspirations, and greater financial independence mean that marriage is no longer the only or main defining role of young women today. Women of all ages have choices that their mothers were denied.

### More Single-Parent Families

The usual progression of love, marriage, and babies is being reordered in American society. For a majority of adolescents and young adults today, sexual intimacy often comes before love. Children increasingly come before marriage; in 2002, one-third of all births were to unmarried women.[26] Many Americans believe that premarital sexual activity and out-of-wedlock childbearing are responsible for the rise in single-parent families, poverty, and welfare dependency. In truth, most single-parent families are not poor or welfare-dependent, and single-parent families are more often a consequence of divorce than of out-of-wedlock-childbearing. At the same time, single-parent families are heterogeneous and difficult to stereotype. Nontraditional families, including single-parent families with children, increased by over 50 percent between 1970 and 2000, and grew from 11 percent to 16 percent of all families. Declines in marriage and increases in divorce have played obvious roles.

The fact that single parents are less likely now than in the past to live with other family members also has increased family and child poverty rates.[27] Such changes have been fueled by declines in the stigma associated with raising children alone and with changing cultural values regarding economic and residential independence from parents. With increasing education and higher occupational status among women over this period, many single mothers are no longer economically dependent. They can now choose to live on their own if they prefer and can afford it. Indeed, the poverty rate for single mothers with children in 2003—32.5 percent—was the lowest level on record.[28] Despite this bit of good news, this figure is a high rate of poverty using almost any standard in the developed world.

In the 1979 movie "Kramer vs. Kramer," actor Dustin Hoffman played a newly divorced father struggling in his unexpected role as primary caretaker of his

young son and fighting a battle to maintain custody. The 1970s had been a period of rapidly increasing divorce rates in America, and this box-office hit movie resonated with many single fathers. The movie helped increase public sensitivity to the estrangement of many single fathers from their children and to the situation of divorced men faced with the legal challenges of gaining physical custody of their children. More than 20 years after that movie, however, only about 17 percent of all children who live with a single parent live with their unmarried fathers.[29]

### Rise in People Living Alone

Over the past three decades, the number of households containing only one person rose sharply, from 17 percent in 1970 to more than 25 percent of all households by 2000. These are important changes that reflect delays in marriage: The years between leaving school and marriage have increased rapidly over this period, thus increasing the chances that young adults live alone. Data from the U.S. Census Bureau's Current Population Survey indicate that, between 1970 and 2000, the median age at first marriage increased from 20.8 years to 25.1 years for women, and from 23.2 years to 26.8 years for men. Increases in persons living alone are not just limited to young adults. Today, single people of all ages are more likely than in the past to live alone rather than to live with family or friends.[30] This trend undoubtedly reflects increasing individualism; the desire for personal privacy; greater financial independence; and less pressure for nonmarried adults, especially women, to live with family or others.

The rise in single-person households also results from the aging of the population and the growing mortality differential between older men and women. Simply put, traditional families are less significant numerically because many families end through the death of a partner, and there are simply not enough older men for widows to marry. In 2000, the sex ratio for the population age 65 or older was 70, meaning that there were only 70 elderly men for every 100 elderly women.[31] At ages 85 and older, the sex ratio drops to 41. The demographic implications are clearly apparent in older men's and women's living arrangements. Men over age 75 are more likely than men at other ages to live with a spouse (67 percent), while women over age 75 are most likely to live alone. Unlike previous generations, today's growing population of widows are better able financially to live on their own rather than to live with other relatives or in a group home.

### The Recent Surge in Cohabitation

The recent decline in marriage has been offset completely by increases in cohabitation—unmarried couples living together. Age at first marriage has increased significantly over the past decade or two, but studies suggest that age at first union (marriage or cohabitation) has hardly changed over this period.[32] Couples have not stopped partnering in early adulthood: They simply are not marrying like they used to. The U.S. Census Bureau estimates that the number of opposite-sex cohabiting couples grew from 440,000 in 1960 to 3.8 million in 2000. Cohabitation now appears to be a normative step in the marriage process: Similar percentages of whites, blacks, and Hispanics experience cohabitation. Significantly, most cohabitors (about 75 percent) expect to marry their partners, but these partners do not necessarily discuss marriage plans before entering into a cohabiting union.[33]

Scholars have hotly debated the reasons for the upward climb in unmarried cohabitation. Some attribute this climb to America's changing sexual attitudes and behavior. The wide availability of the birth control pill in the 1960s helped separate sex from reproduction. Nonmarital sexual activity, especially for women, also became much less stigmatized. Another view is that the rise in divorce has made young couples more cautious about entering marriage. After witnessing and experiencing the effects of their own parents' divorce, these observers say, many couples fear the possibility of their own divorce. Cohabitation may give some couples greater confidence that they can get along with their partners; it gives them some idea about what to expect in marriage. But regardless of motivation, cohabitation is a short-lived arrangement. Most cohabiting couples end their relationships in a year or two. For many heterosexual couples, cohabitation is one step in the progression to marriage. This step also may soon be true for same-sex couples (see Box 1). For other heterosexual couples, cohabitation is an alternative to marriage, one that provides a marriage-like living arrangement without the legal ramifications associated with dissolution. Cohabitation can also be an adaptation to economic hardship or uncertainty—a kind of "poor person's" marriage.

The implications of cohabitation for American society and its families are difficult to forecast. Cohabitation is associated with delays in marriage and childbearing for many young couples, and thus is partly responsible for the recent delays in first marriage. Perhaps surprisingly, divorce rates are unusually high for cohabiting couples who later marry—around 30 percent to 40 percent higher than for couples who do not cohabit. Cohabitation may simply attract individuals who are less committed to marriage as an institution, which means they may also be at greater risk of later dissolution if things go wrong. Cohabitation itself may undermine the stability of subsequent marriage. In fact, the experience of cohabitation may not be representative of the kinds of interactions couples actually experience in marriage.[34] In this sense, cohabitation may not be a good testing ground for marriage. Cohabitation may provide little preparation for making difficult decisions about spending priorities, work, or childbearing and childrearing. A seemingly idyllic or carefree cohabiting experience may

*Box 1*

### Same-Sex Couples

For the first time in the 1990 Census, and again in Census 2000, individuals could indicate whether they were "unmarried partners" of a householder or head of the household. These new data give researchers the opportunity to identify opposite-sex cohabiting couples and same-sex couples.

The results from the 2000 Census indicate that there were 594,000 same-sex cohabiting couples in the United States. This represents roughly 1 percent of all coupled households (married and unmarried), split almost evenly between gay and lesbian couples. San Francisco and Fort Lauderdale had the highest percentages of same-sex couples. Roughly one in four same-sex couples has children under age 18.

Our analyses of the 2000 Census data indicate that householders of same-sex couples had, on average, the highest levels of educational attainment of all householders. In 2000, 35 percent of same-sex couples had a college education or higher. In comparison, only 29 percent of married-couple householders were college-educated. The median household income of same-sex couple households was $60,000 in 1999, roughly the same as for married-couple households. The median incomes of same-sex and married-couple households were higher than for any other American household. These data show that, as a minority group, gay and lesbian couples are not economically marginalized.

The data reported here pertain to same-sex couples who share a common residence; the data are not the estimates of the overall gay and lesbian population in the United States. Yet these are important estimates from a policy standpoint. Cohabiting same-sex couples are probably most likely to choose same-sex marriages or civil unions if those marriages are legalized. In the heterosexual population, roughly 50 percent of cohabiting couples will marry. If a similar percentage of same-sex cohabiting couples married, roughly 300,000 weddings or civil ceremonies would take place. To put this number in perspective, there were roughly 2.3 million marriages in the United States in 2000.

**References**

Gary Gates and Jason Ost, *The Gay and Lesbian Atlas* (Washington, DC: Urban Institute Press, 2004); and Tavia Simmons and Martin O'Connell, "Married-Couple and Unmarried-Partner Households," *Census 2000 Special Reports*, CENSR-5 (Washington, DC: U.S. Census Bureau, February 2003).

thus set the stage for later disillusionment when tough decisions about children and money in marriage require a new level of negotiation and compromise to avoid conflict. Some cohabiting couples also may be poorly matched and therefore at greater risk of subsequent divorce. Many enter sexual and cohabiting relationships quickly and without much forethought about whether their partner is "Mr. or Ms. Right."[35] Intimate relationships, even quickly formed or unhealthy ones, often take on a momentum of their own as the relationship progresses inexorably toward marriage. This dynamic plays itself out later in higher divorce rates.

## Explanations for Family Change

Many scholars ultimately attribute family changes to fundamental shifts in gender roles in American society. In his seminal 1991 book, *A Treatise on the Family*, Nobel Prize-winning economist Gary Becker identifies declining gender specialization in families as the cause of shifts away from marriage and rising divorce.[36] As the argument goes, men and women bring different comparative advantages to the marriage bargaining table. In the traditional breadwinner-homemaker marriage, men specialize in market work and women specialize in home production, including bearing and rearing children. Men and women "trade" their main assets in the marriage market; each is presumably better off by marrying than by remaining single. In the trade, men who make a good living presumably gain access through marriage to companionship, a sexual partner, someone to keep house, and children (who, in earlier periods of America history, were economic assets available to work on the farm or in the factory). As homemakers, women benefit from men's economic support and protection. This trade is especially the case when women face discrimination in the workplace and lack opportunities for economic self-sufficiency and upward mobility. The gains to marriage also increase if the trade is equitable—that is, when partners share similar characteristics such as physical attractiveness, socioeconomic background, race, and education.

Conversely, the blurring of traditional gender roles reduces the gains to marriage. Not surprisingly, observers often attribute recent declines in marriage to the rapid entry of women into the labor force and to the growth of women's earnings. The benefits of marriage presumably have declined with women's rapid entry into the labor force. Women have become less economically dependent on men, and these economic gains have removed a major incentive for women to marry. Working women are less likely to marry and more likely to divorce when faced with unhappy marriages.

The declining economic fortunes of young men—especially low-skilled minority men—and the rise in the welfare state have presumably reinforced declines in marriage. With greater economic independence, marriage-seeking women are more inclined to search longer for economically attractive male partners. Work subsidizes the marital search. For poorly educated men with low wages, their diminished ability to attract a wife is reflected in their rapidly declining marriage rates over the past several decades. The declines in real wages among low-educated workers as well as rising underemployment, especially in poor minority communities and neighborhoods, have presumably accelerated marriage declines

among low-income and minority populations. Sociologist Valerie Oppenheimer has argued that men's changing circumstances—not women's work patterns—have steered America's marriage trends throughout history.[37]

At the same time, government-sponsored subsidies have arguably provided an alternative source of economic support and, therefore, a disincentive to—even a substitute for—marriage. According to critics of welfare, cash assistance has helped women leave their husbands, while also encouraging out-of-wedlock childbearing. The empirical evidence supporting this view, however, is weak.[38]

The benefits from marriage increase with the specialization along traditional gender roles. When mutually beneficial, marriage is the preferred state, and marriage rates are high. To many people, especially the romantically inclined, this coldly rational view of marriage undoubtedly seems anathema to their idealistic notions about the institution. They much prefer to believe that mate selection is largely beyond their control, governed by uncontrollable strong emotions.

Economic perspectives also provide a plausible explanation for racial differences in marriage and family structure. For example, black women's historically higher rates of labor force participation mean that they have always had greater economic independence than white women. Moreover, black men face higher rates of unemployment than do white men, and black men are also less likely to earn a family wage. The marriage imperative, therefore, is lower for black women and other disadvantaged minorities, and marriage rates are expected to be lower for these groups than for economically advantaged populations.

The empirical evidence on these questions, however, is much less compelling.[39] For one thing, delays in marriage have been broadly observed across almost all segments of the U.S. population. This trend has not simply been observed among high earning (and economically independent) women, low-earning or economically unattractive men, or welfare-dependent women. Indeed, highly educated women—those with the *greatest* earnings potential—are more likely than poor women to marry today. And declines in marriage rates have been especially pronounced among the most highly educated men.[40] This decline is seemingly contrary to most economic models of marriage.

Robert Moffitt, a welfare expert at Johns Hopkins University, suggests that the decline in marriage for low-income women reflects the declining earnings of low-educated, low-skilled men who are available for those women to marry.[41] For highly educated women, on the other hand, declines in marriage presumably reflect increases in economic independence associated with their own higher earnings. The important lesson is straightforward: Changes in marriage and family forms may have different causes for different segments of the American population. There is no single cause for declines in marriage, and there is no silver bullet or single prescription that will return America to the days when virtually everyone expected to marry, to stay married, and to have children cared for by a stay-at-home mom (see Box 2).

Widespread declines in marriage among most population groups and the upsurge in alternative living arrangements suggest another explanation for recent changes to family forms in the United States. Pervasive changes in cultural values and attitudes regarding marriage may have played a key role in family change. What causes these cultural values and attitudes to change? Some observers believe that marriage attitudes and values ultimately respond to changes in the economy and to urbanization. Technological changes have also played a large role. The introduction of modern contraception in the early 1960s changed the risks associated with sexual intercourse outside of marriage, including the risk of unintended pregnancy. The media, and television in particular, have also undoubtedly exposed Americans to alternative living arrangements and greater acceptability of sexual activity outside of marriage, while reducing the stigma associated with single parenthood, divorce, and homosexuality. But these media messages may also simply reflect preexisting public attitudes and behavior.

## Race and the Family

Any discussion of racial variation in the family must begin with an acknowledgment of the long-standing debate about the strengths and weaknesses of the black family. Ever since the 1965 publication of Daniel Patrick Moynihan's *The Negro Family: The Case for National Action*, the discussion of racial and ethnic group variation in America's families has been culturally sensitive.[42] As Moynihan argued: "At the center of the tangle of pathology is the weakness of the family structure. Once or twice removed, it will be found to be the principal source of most of the aberrant, inadequate, or antisocial behavior that did not establish but now serves to perpetuate the cycle of poverty and deprivation." Critics charged that Moynihan unfairly blamed the victims.

We have learned a good deal more about changing marriage and family patterns among African Americans and other ethnic groups since Moynihan's prescient comments. The family life of blacks remains distinctive in many ways, as we shall report in the next section, and black family trends may be harbingers of change for all Americans.[43]

Nearly 70 percent of African American children are born outside of marriage. Most black children today grow up in female-headed families, which are often poor. If rates of marriage are our measure, traditional marriage occupies a much less central place in the lives of most American blacks than for other Americans. A

*Box 2*

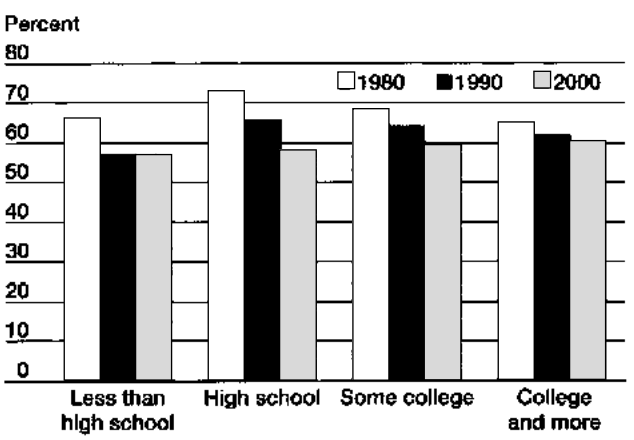
### Does Education Hurt Women's Chances for Marriage?

**The conventional wisdom is that a highly educated young woman often has a difficult time finding a suitable mate for marriage. Presumably, the fear is that prospective husbands may be intimidated by women who are their educational equals or who earn more than they do. Indeed, the typical pattern is that women generally marry up in social status, including educational status. Sociologists call this "marital hypergamy." The implications are clear: As women's education increases, the potential demographic pool of similar or more highly educated men necessarily contracts. Highly educated women may therefore "price" themselves out of the marriage market and jeopardize their chances of marriage. Of course, this expectation also is consistent with standard economic arguments that women's specialization in roles other than homemaker makes them financially independent and therefore less dependent on men for support.**

**The truth is that the percentage of young women who are currently married does not vary greatly by education level (see figure). In fact, in 2000, unlike in earlier periods, college-educated women ages 25 to 34 were more likely than less-educated women to be married. This pattern is different from 1980, when college-educated women were slightly less likely than other education groups to be married. At the same time, the percentage of women who are married at ages 25 to 34 declined for each education group.**

**Young women who hope to marry do not need to worry that a good education will ruin their chances for love and marriage. If anything, a good education is now positively associated with getting married and staying married.**

**Percent of Currently Married Women Ages 25–34 by Education, 1980, 1990, and 2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

disproportionate share of young black mothers have a series of relationships with live-in partners and have children from multiple partners.[44] For black women who do marry, the large majority of their marriages do not last. The implications for intergenerational poverty, long-term welfare dependency, and children's developmental trajectories are real and profound.

These are the unvarnished facts. Their interpretation, however, has been the subject of much debate. Statistics on the black family beg the question about the root causes of these shifts. Are blacks themselves to blame for situations such as unwed childbearing, serial partners, and lack of education? Or are changes in the black family a product of racial oppression, economic inequality, and the lack of equal access to mainstream social and educational institutions? Is this trend a failure of our economic or political system? Or is the current state of the black family a cultural legacy of matrifocal family patterns extending back to slavery—when legal marriage was often denied to blacks, when the family unit centered on slave women and their children, and when black men were denied their traditional patriarchal roles as the family head and economic provider?

Census data alone cannot answer all these questions. The data can, however, provide a first glimpse of the changes in black marriage and family patterns from 1990 to 2000. A voluminous literature on African American family life also provides a social and political context for studying other minority and immigrant groups. Sociologist R. Salvador Oropesa, for example, has coined the term "paradox of Mexican American nuptiality," meaning that the currently high rates of marriage among both U.S.-born and immigrant Mexicans suggest a strong basis for cultural explanations of marriage.[45] Indeed, Mexican Americans, while often sharing the same impoverished circumstances as African Americans, exhibit much different patterns of marriage and family structure. Culture may trump economics. Whether foreign-born Mexicans will adopt the marriage and family patterns of the white majority as they blend into American society, or instead will maintain their cultural heritage of strong families, is far from certain. Mexican Americans are also much more likely than blacks to marry whites.

The typically stable families of most Asian Americans have been widely applauded as a source of great strength and upward social mobility. But in many ways, Asian Americans, as a panethnic group, are considerably more heterogeneous than Hispanics, who come from different Spanish-speaking countries but share certain cultural traits such as language and religion. Pan-Asian averages, on the other hand, may mask wide differences among different Asian-origin populations. Asians differ widely on language, religion, and economic resources. Chinese and Japanese have been in the United States in large numbers for more than 100 years, while other

Asian minorities have only recently arrived in the United States. Many are refugees, such as Cambodians and Vietnamese, who lack the same economic resources that often characterize Asian and other immigrants who entered the country long ago. The experiences of recent Asian immigrant groups have been different in uncertain ways from those of other Asian immigrant groups with large third-generation populations. Fortunately, the 2000 Census provides an unprecedented opportunity to chart the family and demographic experiences of diverse pan-Asian ethnic groups, and also to compare these groups with diverse groups of African Americans, Hispanics, and non-Hispanic whites.

# Racial Diversity: Delayed Marriage or No Marriage?

Race is only one dimension of diversity. Indeed, America's new racial diversity does not necessarily connote a new diversity of attitudes, values, or behavior. The fact that most young people—of every race and creed—hope to marry, illustrates this point.

For Americans who would like to marry, previous research has shown that most of them will realize their aspirations for marriage, regardless of race. Typically, most groups do not forgo marriage, but simply delay it.[46] Less clear is whether the recent trend toward postponement of marriage is similar for most racial or ethnic groups, or whether some groups have had higher non-marriage rates in the 1990s. Demographers usually measure the timing of marriage by showing how the percentage married differs by age group. Declines in the percentage of young adults, say at ages 20 to 24, who have married during their lives (including currently married, divorced, and widowed persons) suggest a pattern of marital delay. On the other hand, permanent singlehood is often represented by the percentage who have never married later in life. The likelihood of a first marriage declines with age and is very low among older Americans, so the percentage never married, at ages 50 to 54 for example, is therefore a good indicator of the level of singlehood in society.

## Delayed Marriage

Young Americans today are not especially anxious to rush into marriage. In 1980, nearly one-half of women and one-third of men ages 20 to 24 were or had been married. Nearly 80 percent of women and 68 percent of men ages 25 to 29 had married (see Figure 1). By 2000, 63 percent of women and 52 percent of men had married. Women marry earlier than men. Generally, men catch up at later ages, perhaps as they become more secure financially. Clearly, young men and women in their 20s are much less likely to tie the knot today; most wait to marry until they have finished school and established themselves in their jobs, usually by their late 20s.

We begin our discussion of racial diversity in marriage timing by examining broad racial and ethnic trends in delayed marriage. Not surprisingly, the overall U.S. trend directly reflects continuing delays in marriage among non-Hispanic whites. Only 38 percent of black women ages 25 to 29 had ever been married in 2000 (see Table 1). This is a large decline from 1980, when 63 percent of black women had married. African American women continued to have a sharper downward trend in marriage than women from other racial groups. The drop among Asian women ages 25 to 29 was also very rapid over this period, from 76 percent to 59 percent. Yet, in 2000, 81 percent of Asian women ages 30 to 34 had married. For black women, on the other hand, the percentage ever married was still very low by ages 30 to 34—56 percent, compared with the national figure of 79 percent.

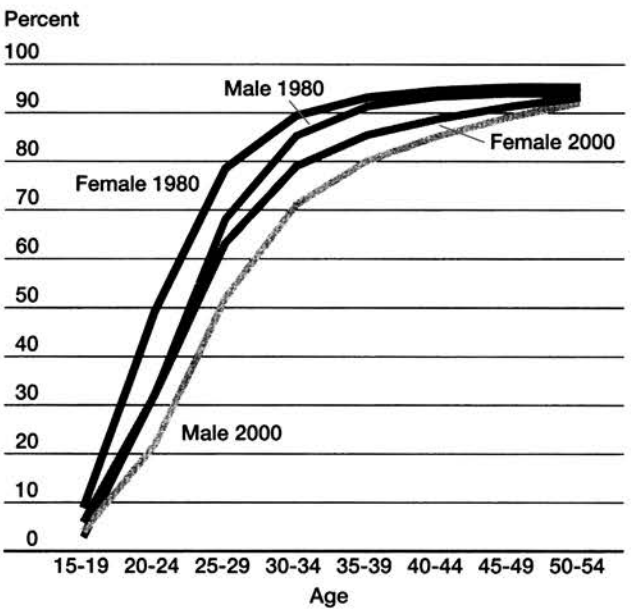
Today, Hispanics wed much earlier than other racial and ethnic groups. But like other groups over the last 20 years, Hispanics are also significantly delaying marriage. In 2000, about 10 percent of Hispanic female teenagers had married, compared with 6 percent of all female teens. Moreover, 42 percent of Hispanic women had married by ages 20 to 24, a figure higher than any racial or ethnic group considered here. For these age ranges, there is little evidence of convergence with the marital patterns of white women, and it seems that age patterns of marital timing have diverged between Hispanic women and white women. By ages 30 to 34, however, the percentages of white women and Asian women who had married were similar to the rate for Hispanic women.

The potential impact on American society of rapid increases in the Asian American and Hispanic populations is magnified by the growing diversity of these groups in their countries of origin. The diverse experiences of these ethnic groups are clearly reflected in their marriage patterns. Of the various Asian American populations, Japanese, Korean, and Chinese women had the lowest percentages of 15-to-24-year-olds in 2000 who were currently married or had been married (see Table 2, page 180). However, the percentage of these groups who were ever married converges with other Asian ethnic groups by ages 45 to 54. In other words, Japanese, Koreans, and Chinese delayed marriage to a greater extent than other Asians. Japanese men are the exception to this marriage delay. The percentage of Japanese men who had gotten married by ages 45 to 54 was high (84 percent) but remained considerably lower than the rate for other groups.

In contrast, Asian Indians marry at much earlier ages than other Asian Americans. Among Asian Indians in 2000, about one-quarter of women ages 15 to 24 were married, as were 63 percent of men and 84 percent of women ages 25 to 34, and 97 percent of men and women

*Figure 1*

**PERCENT EVER MARRIED BY AGE AND SEX, 1980 AND 2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

ages 45 to 54. This may reflect the prominent role that parents play in Asian Indian families, especially in arranging marriages for their children.[47] Asian Indians consist of mostly first- and second-generation Americans, who maintain strong cultural traditions and family unity. But the historical experiences of other immigrant populations suggest that this pattern of early marriage among Asian Indians is likely to shift as the children of today's second generation grow into adulthood and cast aside cultural prescriptions regarding traditional mate selection practices favored by their parents and grandparents.

Regardless of country of origin, most Hispanics marry at earlier ages than Asians. The percentage married is particularly high for Mexicans ages 15 to 24. For this age group, 19 percent of men and 29 percent of women were already married in 2000. In contrast, Puerto Ricans had the lowest percentage ever married for every age group. These percentages are closer to those of African Americans than to other Hispanic groups, because Puerto Ricans and blacks share similar social and economic disadvantages.

## Permanent Singlehood

A once common card game, "Old Maid," left little doubt about attitudes toward marriage and toward women who remained single. In this game, the "loser" is the one stuck with the card showing the old maid. There is no male version of "Old Maid." Instead, older single men are more likely to be stereotyped as immature or irresponsible, as swinging bachelors or playboys, or as gay.

The truth is that Americans remain single for many reasons, and stereotypes change slowly. Indeed, singlehood is often freely chosen today. Some people choose to be unmarried and celibate. Some people give higher priority to their careers than to marriage and children. Still others, such as gays and lesbians, are simply unlikely to enter into heterosexual marriages. Some people, despite their aspirations, are unable to find someone to marry. Still, the main point remains: Whether by choice or not, only a small percentage of men and women remain single throughout their lifetimes.

Yet, as Figure 2 (page 181) shows, the low incidence of singlehood may be changing, albeit slowly. For each panethnic group shown in Figure 2, the proportion never married by ages 50 to 54 increased between 1980 and 2000. For some smaller groups, change has been modest or nonexistent. For example, in 2000, only about

*Table 1*

**PERCENT OF WOMEN EVER MARRIED BY AGE AND RACE/ETHNICITY, 1980 AND 2000**

| | White | | Black | | Hispanic | | Asian | | American Indian | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age group | 1980 | 2000 | 1980 | 2000 | 1980 | 2000 | 1980 | 2000 | 1980 | 2000 |
| Total | 72 | 72 | 58 | 51 | 69 | 66 | 71 | 68 | 68 | 62 |
| 15–19 | 9 | 5 | 5 | 5 | 13 | 10 | 5 | 5 | 12 | 6 |
| 20–24 | 52 | 33 | 33 | 17 | 55 | 42 | 39 | 23 | 54 | 33 |
| 25–29 | 81 | 68 | 63 | 38 | 80 | 68 | 76 | 59 | 79 | 58 |
| 30–34 | 91 | 83 | 78 | 56 | 89 | 80 | 89 | 81 | 90 | 73 |
| 35–39 | 95 | 89 | 86 | 66 | 92 | 85 | 92 | 89 | 93 | 79 |
| 40–44 | 96 | 91 | 89 | 72 | 93 | 88 | 93 | 92 | 94 | 85 |
| 45–49 | 96 | 93 | 92 | 80 | 93 | 91 | 95 | 94 | 95 | 89 |
| 50–54 | 96 | 95 | 93 | 85 | 94 | 92 | 95 | 94 | 96 | 92 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Table 2*

**PERCENT EVER MARRIED BY NATIONAL ORIGIN FOR U.S. ASIANS AND HISPANICS, BY AGE AND SEX, 2000**

| | Asian | | | | | | Hispanic | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age and sex | Chinese | Japanese | Filipino | Asian Indian | Korean | Southeast Asian | Mexican | Puerto Rican | Cuban | South and Central American |
| **Men** | | | | | | | | | | |
| 15–24 | 6 | 7 | 7 | 8 | 6 | 7 | 19 | 13 | 14 | 14 |
| 25–34 | 49 | 43 | 52 | 63 | 48 | 49 | 65 | 57 | 65 | 58 |
| 35–44 | 87 | 72 | 84 | 92 | 92 | 83 | 84 | 76 | 82 | 81 |
| 45–54 | 94 | 84 | 93 | 97 | 98 | 93 | 91 | 86 | 88 | 90 |
| **Women** | | | | | | | | | | |
| 15–24 | 10 | 11 | 12 | 24 | 9 | 17 | 29 | 18 | 20 | 24 |
| 25–34 | 66 | 61 | 71 | 84 | 64 | 68 | 76 | 63 | 77 | 71 |
| 35–44 | 90 | 85 | 89 | 95 | 95 | 89 | 88 | 80 | 90 | 86 |
| 45–54 | 94 | 91 | 92 | 97 | 98 | 93 | 92 | 87 | 92 | 89 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

6 percent of whites and Asians and about 10 percent of Hispanics and American Indians remained unmarried by ages 50 to 54. For American blacks, the changes in singlehood have been more substantial. The percentage still single nearly doubled among black women, from 8 percent in 1980 to 15 percent in 2000. The percentage of single black men experienced a similar increase, from 9 percent in 1980 to 15 percent in 2000. Clearly, for African Americans, the retreat from marriage is both one of delayed marriage and growing singlehood.

What do these data forecast for today's young people? Our estimates of the percentage of people remaining single are based on the actual experiences of men and women born shortly after World War II (the 1945-to-1949 birth cohort). Significantly, the trajectory of recent trends implies much higher future levels of permanent singlehood; for black women in particular, nearly one-third of black women in their early 30s today will remain single during their lifetimes if current trends continue. Singlehood for these black women is well on its way to being an alternative to marriage. This is a very different situation from the past. There is little evidence to indicate that the decades-old declines in marriage among blacks ended in the 1990s. Trends in marriage and family life have not responded positively to improvements among blacks over recent decades in average education, occupational status, and earnings. The implication seems clear: Family change is not rooted simply in economics. Of course, averages hide the situation of lower-class disadvantaged blacks, whose marriage patterns may have diverged from middle-class blacks.[48]

The data in Figure 2 also reveal wide differences between the percentages of men and women who had married during their lives and those who were still married. These differences are driven mostly by patterns of divorce and subsequent remarriage. For whites, a much higher percentage of men than women are currently married. Older women are much more likely than older men to be currently divorced; this gender difference widened during the 1990s and reflects both the upward trend in divorce rates and declining remarriage rates during the young adult years of post-World War II women. Essentially, women are disadvantaged in the remarriage market. For one thing, the ratio of men to women decreases with age. Opportunities for marriage become more unfavorable for women and more favorable for men as they get older. The effects of demographic imbalances between the sexes are compounded by the seeming preferences of divorced men to remarry younger women. Most divorced women have custody of their children and therefore have fewer opportunities to remarry.[49] Prospective husbands may be unwilling to assume the burden of parenting another man's children, especially if the supply of childless single women is abundant.

The marriage patterns of black women are particularly affected by a unique set of disadvantages. Sex ratio imbalances are large in the black population (especially in inner-city neighborhoods), reflecting much higher death rates and prison incarceration rates among black men. In 2000, there were 89 black men ages 25 to 44 for every 100 black women of the same age.[50] By definition, demographic shortages of black men mean that 11 percent of America's black women of marriageable age will not have a black partner. This shortage is compounded if we also consider black men's marriageability. High unemployment and low earnings among the black male population provide a poor basis for getting and staying married. Not surprisingly, compared with other racial and ethnic groups, an unusually large share (roughly 40 percent) of older black women are

currently divorced and not likely to remarry. The percentage divorced changed very little between 1980 and 2000. In 2000, less than 45 percent of black women were married, although 85 percent had been married at some point in their lives.

## Diverse Family and Household Forms

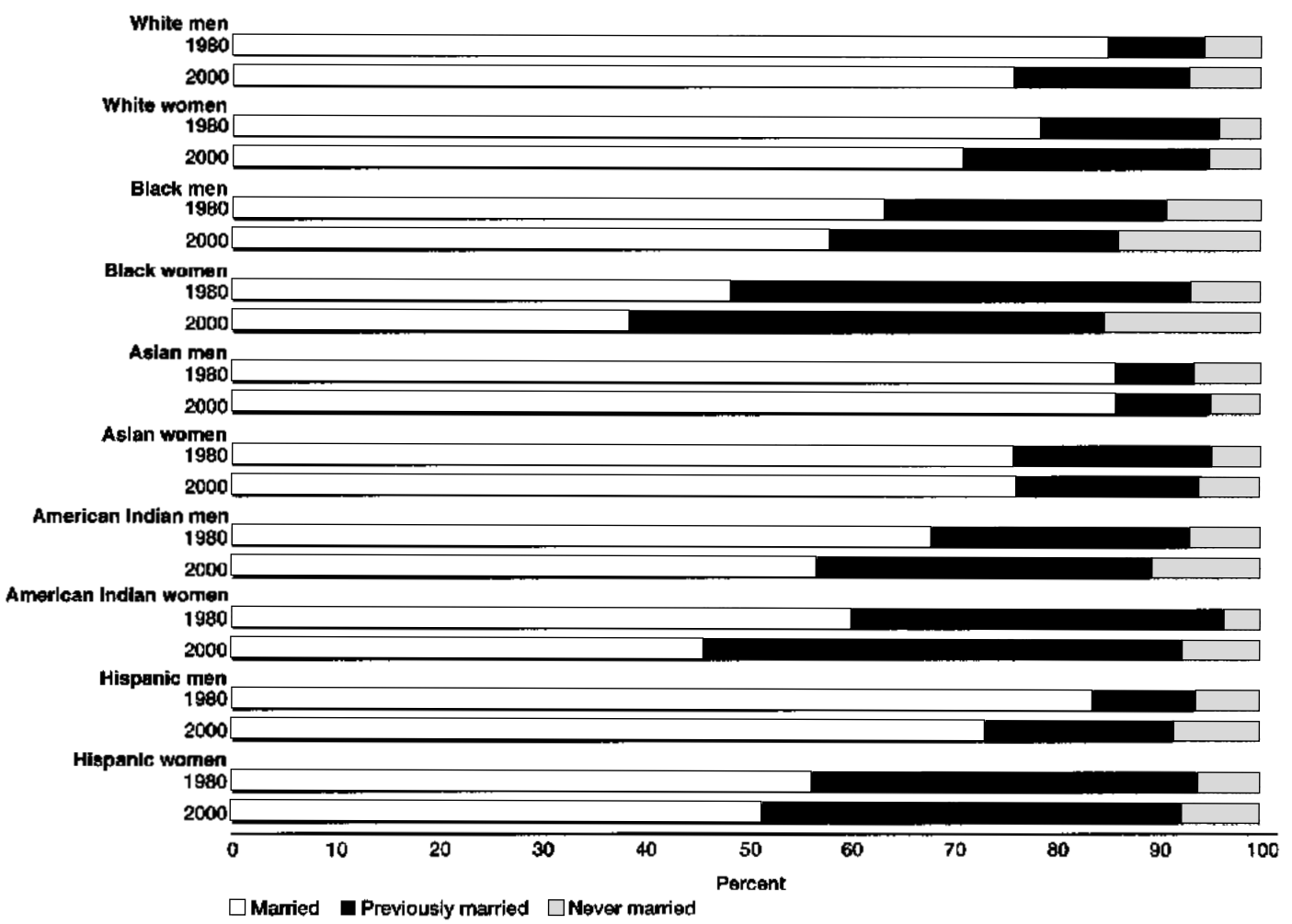
Unmarried Americans of all ages have many lifestyle options. They can live alone or with other relatives, they can cohabit (without much stigma), or they can move in with friends or other nonrelatives. If divorced, they need not remarry. This means that families and households are different today than in the past, as marriage has lost some of its cultural grip on contemporary American society. Sociologists Sara McLanahan and Lynne Casper documented shifts from 1980 to 2000 in the number of female-headed families, male-headed families with children, and cohabiting couples.[51] McLanahan and Casper provided a convincing case that declines in marriage and rising marital instability have profoundly affected American family life.

### Trends in the 1990s

Our results for the 1990s show that the percentage of white married-couple households continued to decline, from 63 percent in 1990 to 58 percent in 2000 (see Table 3, page 182). Traditional families—a working husband, his nonworking wife, and their children—declined from 14 percent in 1990 to 11 percent in 2000. The tradi-

*Figure 2*

**Marital Status by Race/Ethnicity for Men and Women Ages 50–54, 1980 and 2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

tional family represents only a small fraction of all households today.

Families represented by stay-at-home fathers are still relatively rare. As a percentage of all households, those households with homemaker fathers and working mothers increased slowly, from 1.2 percent to 1.9 percent between 1990 and 2000. There is little indication that husbands and wives now play interchangeable roles in the home and in the workplace, or even that couples are moving in this direction. In a large share of American families, women are still the caretakers of family members. They continue to do the lion's share of household chores and child care, even as they have entered the workforce in large numbers.[52]

Growth in less-traditional households predominated in the 1990s. The current interest in new family forms is rooted not only in recent demographic trends but also in new federal and state welfare policies implemented with passage of welfare reform in 1996. Early evidence in Minnesota, New Jersey, and other states suggests that time-limited welfare and the new emphasis on work and family may have resulted in declining nonmarital fertility rates, lower headship rates among teen mothers, and transitions to marriage rather than cohabitation among single mothers.[53] The implication is that, compared with the 1980s, recent rates of female headship may have stabilized or even declined among historically disadvantaged population groups, including blacks and Latinos. Results from the 2000 Census provide a mixed picture, at least for the 1990s. The share of unmarried female-headed households actually increased slightly during the 1990s, from 22 percent to 24 percent. But the share of households headed by previously married (mostly divorced) women with children declined slightly, from 9 percent to 8 percent; households headed by never-married women with children increased slightly, from 2 percent to 3 percent. Most female-headed households with children result from divorce rather than from out-of-wedlock childbearing. Together, female-headed families with children numbered nearly 8 million, or slightly less than 10 percent of all U.S. families in 2000.[54]

While some studies provide evidence that paternal involvement is associated with more positive behavior among children and adolescents, the evidence remains surprisingly weak or inconclusive. It is unclear whether fathers matter beyond providing a regular child support check.[55] Most judges still routinely award child custody to mothers rather than to fathers. Divorced fathers are increasingly seeking custody of their children, but few are awarded custody. Although unmarried male-headed households increased from 14 percent of all households in 1990 to 16 percent in 2000, comparatively few of them involved children. Most of these households were single men living alone. Families headed by unmarried men with children represented only a small fraction of all households and increased only slightly, from 1.6 percent in 1990 to 2.1 percent in 2000. Moreover, a significant share of single fathers do not live alone; they often have other adult caretakers in the home to help out (see Box 3).

In 2000, cohabiting couples headed 6 percent of all American households. It is common to assume that unmarried cohabitation is simply an extension of dating. Cohabitation provides an opportunity for young people to experiment with alternative lifestyles and new adult roles. But this rationale is not true for all cohabitors. Our estimates indicate that a surprisingly large share of cohabitors—43 percent—had coresidential minor children. Many of these families resemble typical married-couple families, with the children the biological offspring of both partners. And a 2004 study based on data from the 1999 *National Survey of America's Families* reported that 28 percent of children in cohabiting-couple households were born into them.[56] Although cohabitation has increased rapidly over the past decade or so, cohabiting-couple households still represent only a small fraction of all households. Only now is research helping us to better understand the developmental consequences of parental cohabitation—which is often a highly transitory arrangement—on children's cognitive and psychosocial development.[57]

Cross-sectional data from the 2000 Census misrepresent the demographic significance of cohabitation in American society. These data seriously underrepresent lifetime experiences of cohabitation; well over one-half of young persons are currently cohabiting or have cohabited in the past.[58] But most cohabiting unions do not last very

*Table 3*
**PERCENT OF MAJOR FAMILY FORMS BY RACE/ETHNICITY, 1990 AND 2000**

| | White | | Black | | Hispanic | | Asian | | American Indian | |
|---|---|---|---|---|---|---|---|---|---|---|
| Family head | 1990 | 2000 | 1990 | 2000 | 1990 | 2000 | 1990 | 2000 | 1990 | 2000 |
| Unmarried man | 14 | 17 | 15 | 17 | 12 | 13 | 11 | 12 | 16 | 19 |
| Unmarried woman | 18 | 20 | 42 | 42 | 21 | 21 | 13 | 14 | 27 | 28 |
| Married couple | 63 | 58 | 37 | 34 | 60 | 59 | 67 | 64 | 52 | 47 |
| Other types | 5 | 5 | 6 | 7 | 7 | 7 | 9 | 9 | 5 | 6 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

long. Recent evidence indicates that one-half or more of all first unions (cohabitations and marriages combined) are cohabitations. The majority of cohabiting unions end in marriage rather than disruption, although there is some new evidence that marriage rates are lower if co-residential children are biologically related to only one of the partners.[59] Poor women are less likely than nonpoor women in a cohabiting relationship to marry. Less than 25 percent of poor women marry within five years of entering a cohabiting union; the largest share separate.[60]

## Racial and Ethnic Differences

The families and households of American blacks continue to be distinctive among the racial and ethnic groups considered in Table 3. Data from the 2000 Census show that married-couple families constituted the majority of households for all major racial and ethnic groups, except for African Americans. Only about one-third of all black households were headed by married couples. Instead, unmarried women headed two-fifths of black households. There is little evidence from the 1990s that the shift from married-couple households to households headed by single women has abated in the black community.

The percentage of traditional, one-earner married-couple families continued to decline in the 1990s. In 2000, such families accounted for only 10 percent of white households, 4 percent of black households, 8 percent of American Indian households, 14 percent of Asian American households, and 15 percent of Hispanic households (see Figure 3, page 184). The comparatively high percentage of traditional families among Hispanics, on the other hand, reinforces the commonplace perception that some Hispanic groups have retained their strong family values and social support. In fact, for all racial groups except Hispanics, dual-earner married-couple families with children outnumbered traditional families 2-to-1. Dual-earner Hispanic families were only about 6 percentage points more prevalent than traditional Hispanic families. For all groups, dual-earner married couples were the most common category, and for all groups except Hispanics, married-couple families without children exceeded the number of traditional families.

The number of female-headed households continued to climb in the 1990s for each racial and ethnic group. As shown in Figure 4 (page 184), a woman living alone represented the most common type of female-headed household among whites and Asians. For African American households, never-married and previously married single women with children outnumbered those living alone. The high percentage among African Americans undoubtedly reflects the high share of unmarried women—the result of past nonmarital fertility, divorce, low remarriage, and early widowhood (reflecting high mortality among black males). Black female-headed families contrast vividly with Hispanic female-headed families: A much smaller percentage of Hispanic women lived alone.

The percentage of households headed by cohabiting women with children is very low for each racial group (below 3 percent), but especially so among whites and Asians. This trend is true even for Hispanics, who have a long history of consensual or informal unions. However, racial differences in the percentage of households headed by previously married (mostly divorced) women with children are also large: 13 percent for African Americans, 10 percent for American Indians, 9

*Box 3*

### Single Fathers Raising Children Alone . . . or Not?

**The media often ballyhoo the fact that more single fathers now have sole or joint custody of their children. The obvious implication is that these men—mostly divorced—are both the primary provider and, more significantly, the primary caretaker for their children. But this media attention gives the wrong impression about men's changing roles in families. In fact, a high percentage of single fathers are not raising children alone (see table). This table includes single fathers who are householders as well as those who are family members. Significantly, the rise in single-father families with children has occurred simultaneously with declining shares, between 1990 and 2000, of fathers raising their children alone.**

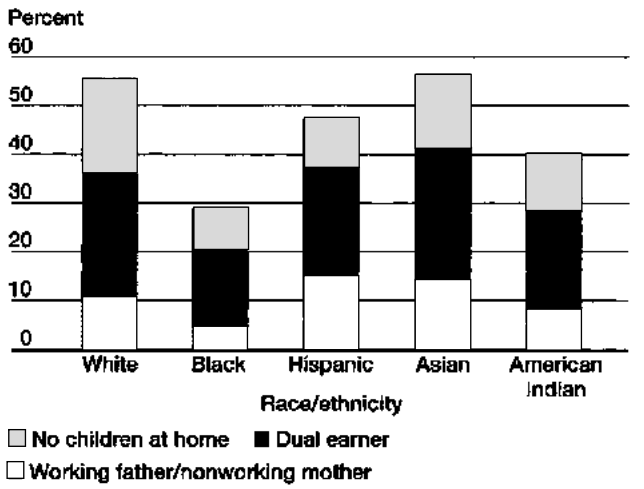
**This trend is especially true for disadvantaged minority fathers. In 2000, among black single fathers, only about 50 percent were living alone with their children. The other fathers were living with a cohabiting female partner or with their parent(s). Among Hispanic men, the percentage of single fathers living alone with their children was only about 40 percent. For white and Asian men, roughly two-thirds were living alone with their children, without any help from their mothers or their live-in girlfriends. Other data from Census 2000 also show that college-educated fathers are overrepresented among fathers living alone with their children. Fathers who are high school dropouts are much more likely to be living with other women who may be both economic providers and caretakers.**

**Living Arrangements of Single Fathers by Race and Ethnicity, 1990 and 2000**

| | Living with parents (%) | | Cohabiting (%) | | Living by themselves (%) | |
|---|---|---|---|---|---|---|
| Race/ethnicity | 1990 | 2000 | 1990 | 2000 | 1990 | 2000 |
| White | 10 | 10 | 22 | 25 | 68 | 65 |
| Black | 24 | 24 | 24 | 26 | 52 | 50 |
| American Indian | 17 | 20 | 37 | 34 | 46 | 47 |
| Asian | 15 | 17 | 18 | 20 | 67 | 63 |
| Hispanic | 13 | 15 | 39 | 44 | 47 | 41 |

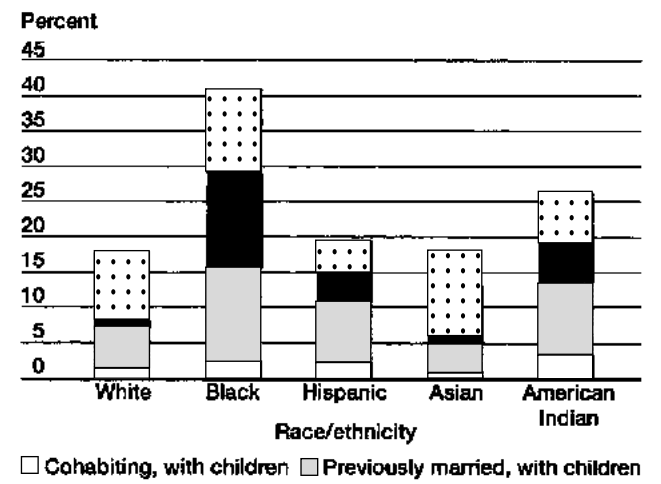
Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Figure 3*
**MARRIED-COUPLE FAMILIES BY RACE/ETHNICITY, 2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Figure 4*
**UNMARRIED FEMALE-HEADED FAMILIES BY RACE/ETHNICITY, 2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

percent for Hispanics, 6 percent for whites, and 4 percent for Asian Americans. These differences reflect, at least in part, significant racial differentials in divorce and remarriage. Specifically, African Americans have higher levels of divorce and lower rates of remarriage compared with other racial groups.

Large racial differences are probably most evident when it comes to households headed by never-married women with children. In 2000, never-married women with children headed 14 percent of African American households, a reflection of much higher rates of out-of-wedlock childbearing among black women (about 70 percent) than the national average (about 33 percent). The percentage of out-of-wedlock children was 5 percent among American Indians, 4 percent among Hispanics, and 1 percent among whites and Asians.

Households headed by men with children were on the rise in the 1990s (see Figure 5), but the increase was modest for each racial group. Unlike female-headed households, the overwhelming share of male households involved men living alone. In 2000, these shares ranged from a high of about 12 percent for white men to a low of 6 percent for Hispanic men. Only small shares of male-headed households included children: from 1 percent to 3 percent for each racial group. Cohabiting families with children that were headed by men represented around 1 percent to 2 percent—a range very similar to that of cohabiting families with children headed by single women.

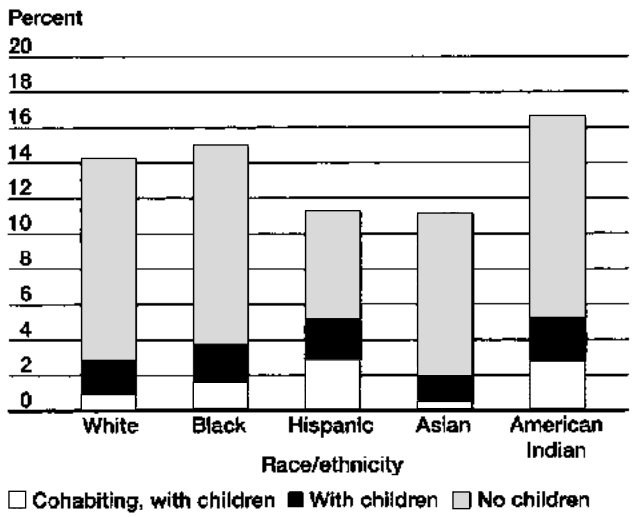
Our analysis of the 1980, 1990, and 2000 censuses shows that multigenerational households vary substantially by race. Although multigenerational families have increased steadily among whites since 1980, these families represent less than 2 percent of all households. But the percentages of these families are two to three times greater among blacks, American Indians, and Hispanics; and roughly 50 percent higher among Asians. Except for blacks, the percentage of multigenerational families among all these groups increased in the 1990s, and the percentage increased faster for American Indians, Hispanics, and Asians than it did for whites. Doubling up in multigenerational households is sometimes viewed as an adaptation to economic hardship. These data provide little indication of racial convergence in the prevalence of multigenerational households and, by implication, of economic well-being. Clearly, there is little indication that racial variation in multigenerational households has converged recently, and this variation also suggests that, in the 1990s, the multigenerational household has changed in ways that suggest less economic inequality and less need for household adaptation.

### Asian and Hispanic Diversity

Substantial diversity within the Asian American and Hispanic populations is apparent in their family forms. In 2000, 20 percent of Asian Indian households are defined as traditional families (see Table 4). In fact, Asian Indians top all other ethnic groups in the percentage of households headed by married couples. This standing is balanced by extremely low percentages for Asian Indians of unmarried male- and female-headed households, indicating the importance of marriage and traditional family values for Asian Indian families.

*Figure 5*

**UNMARRIED MALE-HEADED FAMILIES BY RACE/ETHNICITY, 2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

In contrast, only 8 percent of Filipino households are traditional families. Yet, among U.S. Asians, Filipinos have the highest percentage of households headed by working couples with children. Unlike some other Asian populations, Filipino families are unusually egalitarian, and traditional patrilineal principles are weak.[61] Filipinos have advantages in their occupational training for U.S. labor markets (a high percentage of Filipinos are health-care providers); their job skills (especially English-speaking ability); and the cultural and economic effects brought by America's long military presence in the Philippines. Filipino women take more active economic roles in the family than do most women from other racial minorities, and this active role also helps explain the higher percentage of Filipino households headed by previously married women. Compared with women from other Asian ethnic groups, Filipino women tend to end unhappy marriages.

Single-person households are relatively more common among Japanese Americans, perhaps reflecting an older age structure. Less than two-fifths of Japanese households are single-person households (14 percent for women only and 18 percent for men only). Most Japanese Americans are U.S.-born (reflecting low recent immigration rates). Their incorporation into the social and economic fabric of American society is reflected in many ways, including their scattered residential patterns throughout many big city neighborhoods. Surprisingly, interracial marriage is very high for Japanese Americans (discussed below); their families have often been in the United States for decades and have adopted the ways of most U.S.-born white Americans, such as language and standards of consumption. Very low fertility among Japanese Americans also means, in the event of divorce, that fewer parents will have to raise children in single-parent families.

Among the various Hispanic groups in the United States, the traditional family household is most common among Mexicans (18 percent) and least common among

*Table 4*

**PERCENT OF HOUSEHOLD FORMS BY NATIONAL ORIGIN FOR U.S. ASIANS AND HISPANICS, 2000**

| | Married-couple | | | Female-headed | | | | Male-headed | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethnicity/ national origin | Working father/ nonworking mother | Dual-earner | No children | Cohabiting, with children | Previously married, with children | Never married, with children | Living alone | Cohabiting, with children | Unmarried, with children | Living alone | Other |
| **Asian American** | | | | | | | | | | | |
| Chinese | 13 | 28 | 16 | 0 | 3 | 0 | 8 | 0 | 1 | 10 | 19 |
| Japanese | 13 | 18 | 17 | 0 | 4 | 0 | 14 | 0 | 1 | 18 | 14 |
| Filipino | 8 | 34 | 13 | 1 | 7 | 1 | 7 | 1 | 1 | 6 | 21 |
| Asian Indian | 20 | 26 | 20 | 0 | 2 | 0 | 5 | 0 | 1 | 11 | 16 |
| Korean | 17 | 22 | 14 | 0 | 5 | 0 | 11 | 0 | 1 | 9 | 20 |
| Southeast Asian | 15 | 27 | 11 | 1 | 6 | 2 | 4 | 1 | 2 | 6 | 24 |
| **Hispanic** | | | | | | | | | | | |
| Mexican | 18 | 23 | 10 | 2 | 8 | 3 | 3 | 3 | 2 | 6 | 22 |
| Puerto Rican | 9 | 18 | 10 | 4 | 12 | 9 | 8 | 3 | 2 | 9 | 18 |
| Cuban | 11 | 25 | 15 | 1 | 8 | 2 | 6 | 2 | 2 | 9 | 20 |
| South and Central American | 14 | 23 | 11 | 2 | 9 | 3 | 4 | 3 | 2 | 6 | 24 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Puerto Ricans (9 percent). Family forms of Puerto Ricans mirror those of African Americans. In 2000, for example, 4 percent of Puerto Rican families in the United States were cohabiting households with children, 12 percent were previously married female-headed households with children, and 9 percent were never-married female-headed households with children. The high percentage of female-headed single families with children among Puerto Ricans in the United States reflects many factors, including the high levels of unemployment and low wages facing many Puerto Ricans in economically declining labor market areas in the Northeast. Such factors can reduce the marriage pool and the economic foundations of existing marriages.[62]

# Family Change and Children at Risk

In *A Generation at Risk: Growing Up in an Era of Family Upheaval*, Paul Amato and Alan Booth chronicled the recent unprecedented transformation of America's children. Over the past four decades, children have been buffeted by the strong winds of family change—increased maternal employment, high divorce rates, growing rates of out-of-wedlock childbearing, and increased rates of cohabitation. The decisions parents make about family life profoundly affect their children—for good or ill.[63] A concern for the family's effect on children's well-being has prompted the U.S. government to become much more interested and active in family policy.

Indeed, children are a public good. All Americans have a clear stake in ensuring that today's children grow into healthy and productive citizens. Today's children will become tomorrow's parents, spouses, and employees. The government's interest in marriage is probably best reflected in the reauthorized welfare bill, which proposes to spend federal dollars to promote marriage and reduce divorce, mostly through counseling and marriage education. But expansions in the federal and state Earned Income Tax Credit (EITC), Medicaid, child tax credit, and childcare subsidies also have strengthened the economic foundations of America's families. In a 2004 study, economists Craig Gunderson and James Ziliak show that after-tax poverty was reduced in the 1990s more by EITC expansions ("making work pay") than by either welfare reform or the economic boom.[64] Such policies have helped address real concerns that rapid family change has placed a greater share of America's children at risk.

## Children's Living Arrangements

To fully understand the changing family circumstances of children, we need to highlight the situation of children rather than infer their circumstances from changes in households or families. Indeed, children's family living arrangements have changed significantly over the past few decades, but even though the pace of children's changing circumstances slowed during the 1990s, racial disparities regarding these changes remained large (see Box 4).

Figure 6 shows the percentage of children living in various household types. The typical national pattern was for children to live with a working married couple, although the share of children in this category declined to about 41 percent in 2000. In 2000, 21 percent of children lived in traditional families (working father and stay-at-home mother), down slightly from 24 percent in 1990. These new data provide the basis for another significant finding: Only a fraction of America's children are cared for by stay-at-home married mothers. Not long ago, Americans believed that this family form was the ideal child-care arrangement, especially for young children. Many people believed that mothers who chose otherwise selfishly put their own interests and ambitions above the interests of their family and children, and that working mothers risked harming their children's development. If actions speak louder than words, most Americans no longer believe this to be true.

In fact, most children are now raised by two working parents. And although the numbers for these categories remained small in 2000, children also are increasingly either living with their fathers, with never-married mothers, or with cohabiting couples or grandparents. For example, from 1990 to 2000, the percentage of children living with fathers increased from 1.7 percent to 2.3 percent, while the share of children living with never-married mothers increased from 3.8 percent to 5.0 percent. The number of children in cohabiting-couple households increased an astounding 50 percent during this same period, but still only grew from 2.8 percent to 4.1 percent of all children. Unfortunately, our understanding of the developmental consequences of these arrangements for children remains incomplete. We do know that, on average, children do better in married-couple families, but the majority of children in other kinds of family arrangements also grow up to be productive and well-adjusted citizens.[65] Growing up in single-parent families or in another nontraditional arrangement does not automatically bring unhappiness.

With the passage of welfare reform legislation in 1996, some scholars were concerned that single mothers would lose their welfare eligibility and that the children of those mothers would suffer. Another fear was that these mothers would be unable to adequately care for their children, and these mothers would turn this responsibility over to their own parents or other relatives. Indeed, from 1990 to 2000, the percentage of children living in families headed by their grandparents increased from 5 percent to 6 percent (see Figure 6).

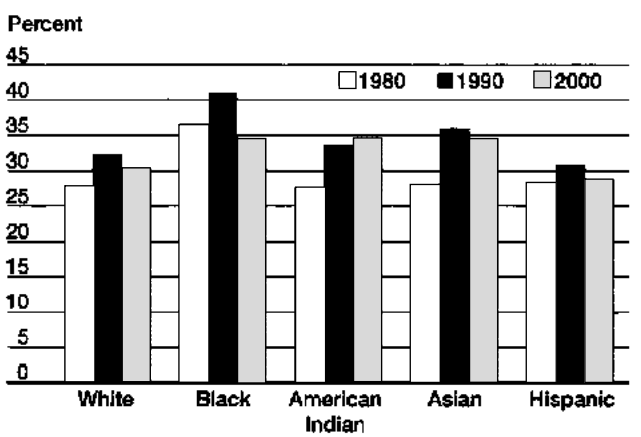
*Box 4*

### Adult Children Living at Home With Their Parents

Early adulthood is marked by a rapid succession of significant changes. It is a time to finish school, leave home for the first time, find a job, get married, and have children. More recently, with delays in marriage, many young adults have moved back into their parents' homes. Some young adults never left, because living with parents was both convenient and inexpensive. Some young adults found it difficult to maintain the economic lifestyle they had experienced while growing up. Others got divorced, had children outside of marriage, or were between jobs and needed a helping hand.

As shown in the figure, roughly 30 percent of young adults ages 18 to 29, regardless of race or ethnicity, lived with one or both of their parents in 1980, 1990, and 2000. The rate was lowest among Hispanics and whites, and highest among American Indians, blacks, and Asians. While the share of young adults increased during the 1980s, the percentage declined slightly for all racial and ethnic groups in the 1990s. This occurred at the same time that young adults were delaying marriage.

**Percent of Young Adults Living With Parents by Race, 1980, 1990, and 2000**

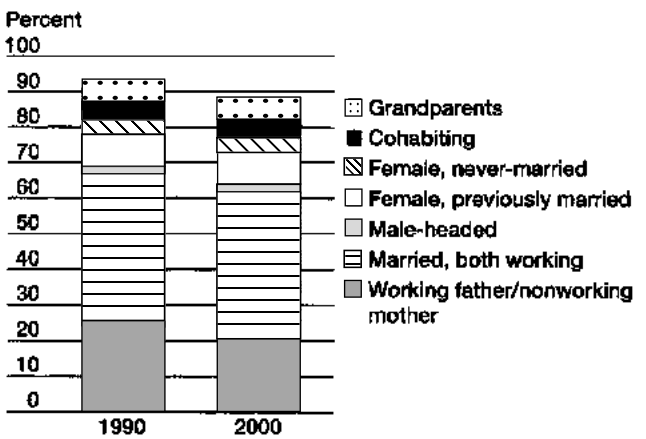



Note: Data for young adults ages 18–29.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Figure 6*

### Children's Living Arrangements, 1990 and 2000




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

These children are often at serious risk for poverty and developmental delays. Few people would blame the grandparents for these risks. Parents' physical or mental health problems, child abuse, substance abuse, and divorce are often factors in children going to live with grandparents. Some incorrigible adolescents may move in with their grandparents to provide relief to their parents. To be sure, many grandparents gladly assume responsibility for their grandchildren in a time of need. But the added responsibility of raising grandchildren can be psychologically and economically burdensome for grandparents.

For children, the developmental risks associated with family changes are distributed unequally across America's racial and ethnic populations (see Table 5, page 188). Data from the 2000 Census show that Asian American children were most likely to live in traditional families (26 percent), followed by white children (24 percent) and Hispanic children (22 percent). Only 6 percent of African American children and 14 percent of American Indian children lived in traditional families. White children were most likely to live with two parents who are in the labor force (48 percent), followed by Asian American children (44 percent). Children living in cohabiting-couple families showed substantial racial diversity—9 percent of American Indian children lived with their cohabiting parent, while only 1 percent of Asian American children lived in such an arrangement.

Disparities by race in the number of children living alone with their fathers are minimal, but large disparities exist among children living with single mothers. In 2000, 20 percent of African American children lived with single mothers who were never married, and another 15 percent lived with single mothers who were previously married. White, American Indian, Asian American, and Hispanic children are much less likely to live with single mothers. Grandparents also apparently play a much larger parenting role among black and American Indian families than in other families. The high percentages of historically disadvantaged children living with single parents (and the comparatively large role of grandparents in their childrearing) are often interpreted as marks of families in crisis. A more benign interpretation is that disadvantaged families have developed more flexible family roles and patterns of kin support as an adaptive

response to economic hardship. The incidence of children living with grandparents can be interpreted as a measure of family strength rather than family weakness.

## Family Structure and Child Poverty

Children's economic welfare is inextricably tied to their family living arrangements. Indeed, the effects of single parenthood on various developmental outcomes are mediated in part by changes in income. One study showed that roughly one-half of the association between single parents and the various negative outcomes of their adolescent children was due to declines in income.[66]

Divorce is associated with increased poverty and declines in family income.[67] A divorced woman loses her husband's income, which typically represents the largest share of predivorce family income. Yet women often must be the sole financial support for their children. For single women, many were poor before they had children; childbearing only served to reinforce their cycle of poverty. For both single and divorced women, marriage or remarriage is often the best route to economic recovery.[68]

The good news from the 1990s is that the percentage of children living in poor families declined (see Figure 7). Perhaps surprisingly, the decline was most dramatic among children living in never-married female-headed families. More than 70 percent of children in these families lived below the poverty line in 1990, but less than 60 percent were poor in 2000. Some observers have attributed the improved economic circumstances of these children to the 1996 creation of a new welfare system emphasizing that welfare was temporary and that single mothers must find jobs. Other observers believe that job growth simply reflected the robust performance of the economy in the last half of the 1990s. More poor mothers were able to enter the labor force, if only at low-wage, low-skill jobs. Still, in 2000, close to three-fifths of children in never-married female-headed families remained poor.

However, welfare reform and a strong economy did little to reduce long-standing racial or ethnic differences in children's economic well-being. In 2000, racial and ethnic variation in child poverty in the United States was enormous. Official rates varied from a low of only 5 percent among Japanese American children to a high of 35 percent among Dominican children. Child poverty rates also exceeded 30 percent among non-Hispanic blacks, American Indians, and Puerto Ricans. These rates are high by almost any standard.

Child poverty may largely reflect variations in family structure that result from out-of-wedlock childbearing, divorce, and cohabitation. Poverty rates were lowest in 2000 for children living in families headed by married couples (4 percent), and highest among children living alone with never-married mothers (58 percent) and previously married mothers (34 percent). The official poverty rate for children living with a cohabiting parent and co-resident partner also was very high (38 percent). These high rates were also observed among all the racial and ethnic groups studied in this report.

Differences in children's living arrangements are not, by themselves, responsible for inequality across these racial and ethnic groups. Within each family type, historically disadvantaged children—blacks, Puerto Ricans, and American Indians—had substantially higher poverty rates than their white or Asian American counterparts. For example, the poverty rate for black children living in married-couple families was 14 percent, but only 5 percent for white children living in married-couple families. Similarly, the poverty rate for white children living in never-married female-headed families was very high (43 percent), but still substantially lower than the roughly 56 percent of black or American Indian children in those same family circumstances. The impli-

*Table 5*
**CHILDREN'S LIVING ARRANGEMENT BY RACE, 2000**

| Family type/family head | White | Black | American Indian | Asian American | Hispanic |
|---|---|---|---|---|---|
| **Couple families** | | | | | |
| Husband working, wife not working (%) | 24 | 6 | 14 | 26 | 22 |
| Dual-earner couple (%) | 48 | 22 | 29 | 44 | 28 |
| Cohabiting couple (%) | 3 | 6 | 9 | 1 | 6 |
| **Single-parent families** | | | | | |
| Male (%) | 2 | 2 | 3 | 1 | 2 |
| Female, previously married (%) | 9 | 15 | 12 | 4 | 9 |
| Female, never married (%) | 2 | 20 | 7 | 1 | 5 |
| **Grandparents (%)** | 4 | 13 | 12 | 4 | 7 |
| **Other types (%)** | 8 | 15 | 16 | 18 | 22 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

cation seems clear: Even if children of different racial and cultural backgrounds were distributed in the same proportions across low-risk and high-risk families, poverty rates would still be higher than the national average for blacks, American Indians, and other historically disadvantaged minority children in America. Family structure alone does not explain racial differences in child poverty.

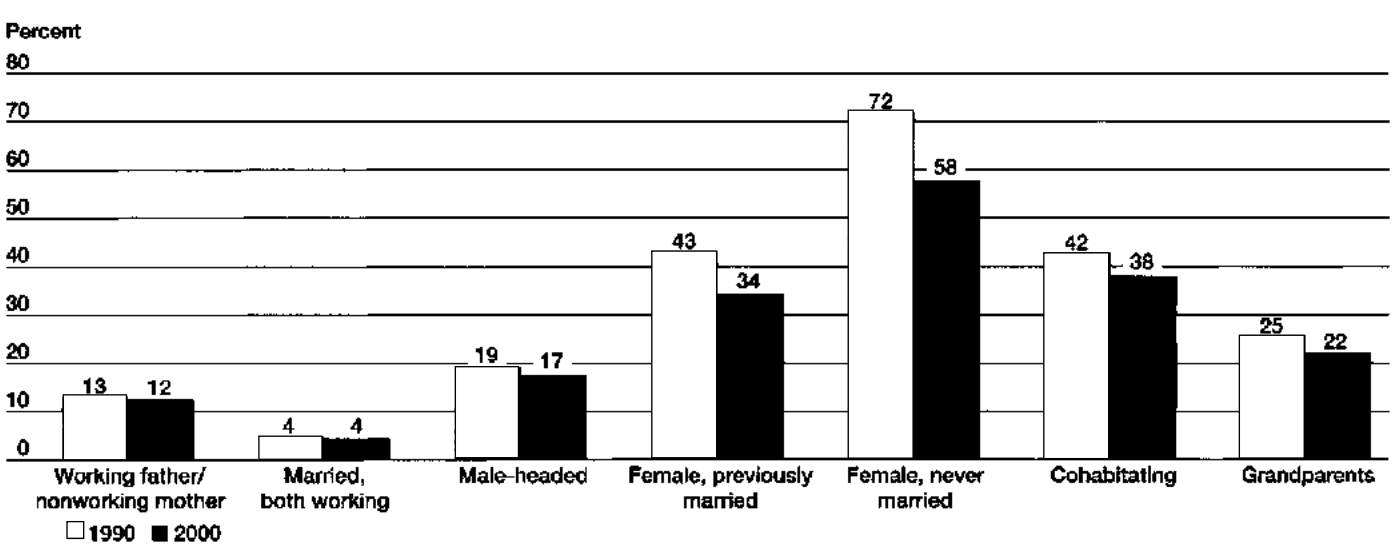
Another common view about child poverty is that poverty rates are artificially inflated for children living in cohabiting-couple households. Our calculations indicate that if the incomes of both partners in cohabiting unions were combined and then compared against an adjusted poverty line (one that reflected the larger family size), poverty rates for these children hypothetically could be cut in half—from about 40 percent to 20 percent (compare the "official" and "adjusted" cohabiting-couples columns in Table 6, page 190). Poverty rates would be similarly affected for each racial or ethnic group considered here. For example, the poverty rate for black children in cohabiting-couple families would drop from the official rate of 44 percent to about 27 percent.

While the poverty-reducing effects of marriage are substantial for cohabiting children (assuming, perhaps unrealistically, that these children do not already receive income support from their parents' partners), the overall effect of marriage on child poverty rates is not large in absolute terms (compare the last two columns in Table 6). Even if all cohabiting couples actually got married, the effects on child poverty rates overall would be a drop of about 1 percentage point from 16 percent to 15 percent. Clearly, children in cohabiting unions still represent only a small share of all American children, and they are disproportionately more likely to be living with a disadvantaged parent and a similarly disadvantaged partner of that parent. The poverty rate of cohabiting couples, if they married, is still high by conventional standards.

Some scholars are concerned that this focus on poverty ignores other indicators of economic hardship. Many nonpoor children may be living in families or households that are only slightly above the poverty threshold. A singular focus on poverty may misrepresent overall changes in children's standard of living; it may also hide the growing gap between affluent and poor children.[69] Yet our analysis indicates that the 1990s ushered in a rise in median family/household income (in 1999 inflation-adjusted dollars) for virtually every type of American household, including families with children. The only exception to this upward trend was for cohabiting female householders with children and for male-headed families with children. Income inequality across types of households with and without children, however, remained substantial in 2000. For example, average family incomes ranged from a low of $15,000 among never-married females heading families with children to a high of $60,200 among dual-earner married couples with no children. The median income of dual-earning married couples with children was also more than $66,500. Clearly, recent changes in the family, especially the rise in female-headed families, suggest that America's children today take very different economic pathways to adulthood.

Family differences in economic well-being may be even larger if we account for differences in family size,

*Figure 7*
**PERCENT OF POVERTY BY HOUSEHOLD TYPES, 1990 AND 2000**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

which differ substantially across household types. By definition, the household size is one for a male or female living alone. Traditional male-earner/female-homemaker families represent the nation's largest households (4.2 members in 2000). A big family with many children places obvious constraints on a woman's ability and inclination to work outside the home (and thus to contribute to family income). But it is also true that women in traditional families may desire more children than women who work outside the home. One way to measure economic well-being that takes family size into account is to divide a family's or household's income by the official poverty line for that family size. The poverty line, as defined by the federal government's Office of Management and Budget, increases with family size but also takes economies of scale into account. The poverty line is therefore set higher for larger families. By dividing family income by the poverty line, we can estimate adjusted family incomes that allow appropriate comparisons among families of different sizes.

Not surprisingly, this calculation finds that married couples without children are most advantaged; their average incomes were 4.1 times the poverty threshold. Never-married women with children had the lowest income-to-poverty ratio—1.4 times the poverty threshold. Declines in poverty do not mean that children living in female-headed families have attained a high standard of living.

Whether inequality across household types has increased during the 1990s can be determined by comparing the income-to-poverty ratios in 1990 and 2000. In most cases, observed changes were small. However, for never-married women with children, the income-to-poverty ratio increased by 26 percent. At the other extreme—married couples with no children—size-adjusted household income increased by only 3 percent. The implication is that historically disadvantaged groups, such as single women with children, have done better than other groups in the 1990s. As other studies have suggested, improvements in the standard of living among these never-married women with children may reflect the effects of their increased employment required by the 1996 welfare bill and the effects of the resurgent economy in the late 1990s. At the same time, the family incomes of these never-married women with children often remain very low by national standards, generally only slightly above poverty levels.

## Mate Selection and Marital Matching

To fully understand today's American families requires some understanding of how men and women sort themselves into marriages. Demographers call this matching process "assortative mating."[70] The conventional mate-selection pattern is for men and women to match on the same personal characteristics; indeed, this basic principle of mate selection has been

*Table 6*

**Poverty Rates by Race/National Origin and Family Structure, 2000**

| Race/ethnicity and national origin | Married couple | Single male | Single ever-married female | Single never-married female | Cohabiting couple (official) | Cohabiting couple (adjusted) | Total official | Total adjusted |
|---|---|---|---|---|---|---|---|---|
| All races/origins (percent) | 9 | 17 | 32 | 54 | 40 | 20 | 16 | 15 |
| Non-Hispanic white | 5 | 12 | 25 | 43 | 37 | 14 | 9 | 8 |
| Non-Hispanic black | 14 | 27 | 39 | 57 | 44 | 27 | 33 | 31 |
| American Indian | 20 | 29 | 44 | 56 | 52 | 32 | 31 | 29 |
| Chinese | 11 | 18 | 22 | 26 | 31 | 19 | 12 | 12 |
| Japanese | 4 | 7 | 16 | 19 | 21 | 6 | 5 | 5 |
| Filipino | 4 | 10 | 12 | 14 | 28 | 10 | 5 | 5 |
| Korean | 11 | 9 | 24 | 40 | 29 | 8 | 12 | 12 |
| Asian Indian | 9 | 23 | 24 | 31 | 24 | 13 | 9 | 9 |
| Southeast Asian | 23 | 21 | 48 | 56 | 37 | 25 | 27 | 26 |
| Mexican | 22 | 23 | 45 | 57 | 43 | 31 | 28 | 27 |
| Puerto Rican | 16 | 26 | 46 | 64 | 46 | 27 | 33 | 31 |
| Cuban | 10 | 19 | 28 | 53 | 34 | 19 | 15 | 15 |
| Dominican | 22 | 30 | 52 | 64 | 41 | 25 | 35 | 34 |
| Middle Eastern | 3 | 4 | 12 | 35 | 34 | 10 | 5 | 5 |

Note: Adjusted rates include the income of the cohabiting partner in the family.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

exploited with much success by the burgeoning dating-service industry. Young women marry young men, college-educated women marry college-educated men, black women marry black men, Catholics marry Catholics, and so on.

In the 1800s, satirist and novelist William Thackeray wrote, "It is just as easy to marry a rich man as a poor man." But this advice may not be true, especially for poor women. The empirical evidence indicates that it is difficult to cross status boundaries of any kind through marriage. For example, researchers Megan Sweeney and Maria Cancian suggest that patterns of assortative mating on income are more rigid.[71] There is less opportunity for low-income women to "marry up." High-earning men are increasingly choosing to marry high-earning women rather than less-educated homemakers. As a result, assortative mating by social class may exacerbate family income inequality in the United States and reinforce the existing social stratification system between rich and poor families. Marriage under these circumstances has a polarizing effect on American society. Out-group marriage, on the other hand, indicates the breakdown of social and economic boundaries. Recent increases in interfaith marriage, for example, provide evidence of secularization and the declining significance of religion in everyday life.

Racial intermarriage may similarly reveal the social significance of race in America's increasingly multicultural and multiracial society. Whether Americans are more likely to marry across racial and ethnic boundaries today than in the past reveals whether racial and ethnic boundaries have weakened over time or have become more rigid. Intermarriage provides a measure of the social distance between racial and ethnic groups and is a good indicator of the assimilation of minorities and immigrants into the majority society.[72] In fact, Milton Gordon, in his classic work *Assimilation in American Life*, argued that intermarriage is the final step in the assimilation process, occurring only after economic and residential assimilation.[73]

For much of America's history, romance and sex between men and women of different races was considered taboo. State antimiscegenation laws forbade people of different races from marrying. These laws were ruled unconstitutional and abolished nationwide in 1967 by the U.S. Supreme Court. Over the ensuing 35 years, interracial marriages have increased rapidly, especially between whites and blacks (who were the prime targets of state antimiscegenation laws). Census data show that the number of marriages between African Americans and whites increased nearly sixfold between 1970 and 2000, from 65,000 to 363,000 couples. Over the same period, marriages between whites and individuals of other racial groups increased from 233,000 to 1 million.

The rise in interracial marriage is a result of the narrowing of racial gaps in socioeconomic status and education; this narrowing has helped break down negative racial stereotypes in the United States. The integration of racially segregated universities, along with modest declines in neighborhood racial segregation, have brought together individuals of diverse backgrounds.[74] Propinquity obviously is a necessary but not sufficient condition for establishing interracial contact and for developing interracial friendships, relationships, romance, and marriage.

Attitudes about racially mixed marriages have also become more tolerant. In the 1960s, less than 10 percent of whites expressed approval of interracial marriages; in the 1990s, more than two-thirds approved of such marriages. White support for equal access of racial minorities to schools, housing, and jobs, however, was even more dramatic, at 96 percent, 86 percent, and 97 percent, respectively.[75] As Americans, we clearly support racial integration and equality in public accommodations and in other impersonal arenas, but we remain less tolerant of interracial intimacy and marriage. We also may increasingly accept intermarriage in principle, but we are less approving of such relationships among family members. Most of us do accept partners of another race in our own lives, but we still look twice at interracial couples. The statistical evidence reflects America's continuing aversion to interracial marriages. Marriages involving interracial couples only increased from less than 1 percent of all marriages in 1970 to almost 3 percent in 2000. Love is not blind when it comes to race.[76]

## Racial Intermarriage Among U.S.-Born Americans

It is important to distinguish marriages involving U.S.-born Americans from marriages of immigrants who have not yet been fully incorporated into American society or who married before coming to America (see Tables 7 and 8, page 193). Racial endogamy, or within-group marriage, is the norm for U.S.-born whites and blacks. In 1990, 96 percent of U.S.-born white men were married to U.S.-born white women. This percentage dropped to 94 percent in 2000. Blacks, especially black women, are much less likely than other minorities to marry whites or other nonblacks. Black women also experienced much smaller declines in racial endogamy in the 1990s, from 95 percent in 1990 to 93 percent in 2000. For black men, endogamy declined from 91 percent in 1990 to 84 percent in 2000.

Intermarriage is one indicator of social distance between groups. For example, in New York City in 2000, more than two-thirds of African and West Indian black men marry endogamously.[77] The rest of these black men are married mostly to U.S.-born blacks. A similar percentage (about two-thirds) exists for West Indian women, but African women have slightly higher percentages of in-group marriage than U.S.-born black women. African and West Indians are only about one-

half as likely as African Americans to marry whites. Clearly, racial endogamy prevails, but it also seems that nativity status and country of origin also create barriers to marriage within the black community.

Interracial marriage is especially common among U.S.-born American Indians. In 1990 and 2000, less than one-half of American Indians were married to spouses of the same race. During this time, Asian Americans also had high out-marriage rates to whites, but Asians were much different from American Indians in the extent of marriage to foreigners. In 2000, 23 percent of U.S.-born Asian men had foreign-born Asian spouses, and 45 percent of U.S.-born Asian men were married to U.S.-born women of different racial groups. Meanwhile, only 15 percent of U.S.-born Asian women were married to foreign-born Asian men, but 58 percent of U.S.-born Asian women married across racial boundaries (mostly to U.S.-born white men). If intermarriage is our measure, Asians are clearly assimilating rapidly into American society.

Asians are highly diverse with respect to national origin, religion, language, and history of immigration, and this diversity can affect their intermarriage patterns. For example, U.S.-born Chinese and Asian Indians had the highest endogamy rates in 2000 (48 percent and 44 percent, respectively); while Filipinos, Japanese, and Koreans had the lowest endogamy rates (29 percent, 31 percent, and 27 percent, respectively). Perhaps surprisingly, Asian Americans marry whites in higher percentages than they do members of another Asian ethnic group.[78] In recent years, however, interethnic marriage has been on the rise, especially between U.S.-born Japanese and Chinese who have lived in the U.S. for several generations. This rise in the Asian interethnic marriage rate may provide early evidence of a growing pan-Asian identity.

Compared with American Indians and Asians, endogamy among Hispanic Americans takes an intermediate position. In 2000, 51 percent of U.S.-born Hispanic men and 46 percent of U.S.-born Hispanic women were married to other U.S.-born Hispanics. Interestingly, the sex differences in endogamy were due mostly to differences in marriage to foreign-born Hispanics. In 2000, U.S.-born Hispanic women were more likely than U.S.-born Hispanic men to marry foreign-born Hispanics (22 percent for women, compared with 15 percent for men).

Our findings clearly indicate greater social distance between whites and blacks than between whites and other racial minorities. The growth of the black middle class has increased their presence in integrated neighborhoods, but African Americans still remain more residentially segregated than other racial minorities. Blacks also face more discrimination. Historically, black/white marriages were strongly discouraged and subject to legal penalties. In comparison, American Indian/white marriages were actually promoted for political and economic reasons.[79] Moreover, the racial background of Hispanics is a less significant barrier to intermarriage than it is for blacks. At least one-half of Hispanics identify as being white and therefore find it much easier to marry non-Hispanic whites.[80] For Asian Americans, educational attainment is an important factor underlying intermarriage patterns. Asian Americans have the highest rates of college completion. And across all racial groups, college-educated people are more likely to marry interracially than those who have less education.

The 1990s saw a slowdown in the decline in racial endogamy for Asian Americans and Hispanics. In our view, the large influx of immigrants from Asia and Latin America enlarged the marriage pool for U.S.-born Asian Americans and Hispanics. But these small changes must be interpreted with care, because racial classifications changed with the 2000 Census. Some biracial individuals who in 1990 were identified as minorities are now identified as multiracial (they chose two or more races when answering the race question on the census). Multiracial individuals are less likely to marry others who also are multiracial than they are to marry individuals classified as belonging to a single race. In 2000, only 30 percent of multiracial men and 28 percent of multiracial women were married to spouses of multiple racial identifications.

### Sex Differences in Interracial Marriage

More than 75 percent of black/white marriages in 2000 were between a black man and a white woman. Highly educated African American men are more likely than their female counterparts to marry into different racial groups (see Box 5, page 194). In fact, the black husbands of white women have much higher educational levels than the black husbands of black women.

Throughout the Western world, fair skin tone has long been perceived as a desirable feminine characteristic. In fact, until recently, black women rarely won the ultimate tests of beauty—the Miss Universe and Miss America beauty pageants. In 1977, Janelle Commissiong of Trinidad and Tobago became the first black winner in the 26-year history of the Miss Universe pageant. It was not until 1984 that a black woman was chosen as Miss America. The first black woman to win the Miss Florida title did so in 2003.

Beauty is socially constructed. With respect to race, sociologist Mark Hill has shown that fair skin color of African American women is associated strongly with attractiveness ratings.[81] The coupling of skin color with femininity and physical attractiveness may explain, at least in part, the larger share of black/white marriages involving black men rather than black women. For some, white women still seem to represent the highest standard of beauty.

Sex differences are also strong for Asian Americans regarding intermarriage. Among the U.S.-born population in 2000, three-fifths of Asian American/white couples were Asian women married to white men. The Asian culture's strong emphasis on the patrilineal line of

*Table 7*

## RACE/ETHNICITY AND NATIVITY OF SPOUSES OF U.S.-BORN MEN AND WOMEN AGES 20–34, 1990 AND 2000

| Race/ethnicity and sex | 1990 | | | | 2000 | | | |
|---|---|---|---|---|---|---|---|---|
| | Spouse of same race (%) | | Spouse of different race (%) | | Spouse of same race (%) | | Spouse of different race (%) | |
| | U.S.-born | Foreign-born | U.S.- born | Foreign-born | U.S.-born | Foreign-born | U.S.- born | Foreign-born |
| **U.S.-born men** | 93 | 2 | 4 | 1 | 90 | 2 | 7 | 1 |
| White | 96 | 2 | 2 | 1 | 94 | 1 | 3 | 1 |
| Black | 91 | 1 | 7 | 1 | 84 | 2 | 14 | 1 |
| American Indian | 42 | z | 57 | 1 | 43 | z | 56 | 1 |
| Asian American | 38 | 13 | 46 | 3 | 30 | 23 | 45 | 2 |
| Hispanic | 57 | 10 | 32 | 1 | 51 | 15 | 32 | 2 |
| Multiracial | — | — | — | — | 28 | 3 | 65 | 5 |
| **U.S.-born women** | 93 | 2 | 4 | 1 | 90 | 3 | 7 | 1 |
| White | 96 | 2 | 2 | 1 | 94 | 1 | 4 | 1 |
| Black | 95 | 2 | 3 | z | 93 | 2 | 5 | 1 |
| American Indian | 42 | z | 57 | 1 | 42 | z | 55 | 2 |
| Asian American | 35 | 8 | 53 | 4 | 24 | 15 | 58 | 3 |
| Hispanic | 52 | 16 | 31 | 1 | 46 | 22 | 30 | 2 |
| Multiracial | — | — | — | — | 25 | 3 | 66 | 6 |

z = Less than 0.5 percent.

— Not available.

Note: Percentages may not add to 100 due to rounding errors.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Table 8*

## RACE/ETHNICITY AND NATIVITY OF SPOUSES OF FOREIGN-BORN MEN AND WOMEN AGES 20–34, 1990 AND 2000

| Race/ethnicity and sex | 1990 | | | | 2000 | | | |
|---|---|---|---|---|---|---|---|---|
| | Spouse of same race (%) | | Spouse of different race (%) | | Spouse of same race (%) | | Spouse of different race (%) | |
| | U.S.-born | Foreign-born | U.S.- born | Foreign-born | U.S.-born | Foreign-born | U.S.- born | Foreign-born |
| **Foreign-born men** | 47 | 41 | 2 | 11 | 59 | 27 | 4 | 10 |
| White | 16 | 78 | 2 | 3 | 22 | 70 | 3 | 5 |
| Black | 40 | 47 | 3 | 11 | 45 | 36 | 5 | 14 |
| American Indian | 14 | 12 | 16 | 59 | 22 | 14 | 8 | 56 |
| Asian American | 70 | 5 | 3 | 22 | 73 | 6 | 3 | 18 |
| Hispanic | 63 | 23 | 1 | 13 | 70 | 20 | 2 | 9 |
| Multiracial | — | — | — | — | 45 | 10 | 20 | 26 |
| **Foreign-born women** | 49 | 37 | 2 | 12 | 62 | 23 | 4 | 12 |
| White | 17 | 79 | 1 | 3 | 22 | 70 | 4 | 5 |
| Black | 46 | 43 | 3 | 8 | 51 | 37 | 3 | 9 |
| American Indian | 10 | 14 | 9 | 67 | 24 | 15 | 9 | 52 |
| Asian American | 54 | 6 | 3 | 37 | 61 | 6 | 3 | 30 |
| Hispanic | 72 | 15 | 1 | 12 | 77 | 13 | 3 | 7 |
| Multiracial | — | — | — | — | 47 | 7 | 18 | 28 |

— Not available.

Note: Percentages may not add to 100 due to rounding errors.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

descent puts pressures on Asian American men to marry an Asian woman. As a result, endogamy for Asian men is strong regardless of whether the woman is a U.S.-born or a foreign-born Asian.

### Interracial Cohabitation

Cohabitation is an increasingly popular living arrangement for interracial couples and perhaps even an alternative to marriage.[82] In 2000, 10 percent of cohabiting couples were in interracial relationships, while only 6 percent of married couples were interracial. A higher percentage of cohabiting than married couples include partners of different races. Cohabiting relationships, by most counts, are much less stable than marriages—levels of commitment are typically lower and rates of childbearing are lower for cohabiting couples than for married couples. Interracial couples may, in fact, choose to cohabit rather than marry because cohabiting relationships are less public and involve fewer formal interactions with families and friends. Sociologists Kara Joyner and Grace Kao find that adolescents who have same-race partners are much more likely than adolescents with different-race partners to introduce their partners to their family.[83] Interracial couples express concerns about potential rejection when families become aware of such relationships.

Black/white cohabiting couples are especially common. In 2000, these couples accounted for almost 30 percent of interracial cohabiting relationships, but only 18 percent of interracial marriages. Black/white couples are more likely to opt for cohabitation than marriage, compared with other minority/white couples. The instability of black/white cohabitating couples may reflect a lack of family and community support for these relationships.

## Intermarriage Patterns Among Immigrants

Marriages of immigrants to U.S.-born Americans of the same or different racial or ethnic background provide an

*Box 5*

### Marriage Prospects of Black College-Educated Women

In *Too Many Women? The Sex Ratio Question*, Marcia Guttentag and Paul Secord argue that the shortage of men affects women's marriage patterns, forcing women to marry later or even to remain unmarried throughout their lives.[1] Indeed, in recent decades, age at marriage and the percentage never married have risen rapidly for women. Empirical evidence does not show a strong link between the sex ratio and changes in marriage patterns for white women.

For black women, however, sex ratios may play an important role in marriage patterns.[2] The availability of male partners is much lower at every age for black women than it is for white women. College-educated black women are no exception; they are much less likely to be married than similarly educated white women. Among women ages 25 to 44, almost three-fourths of white college-educated women were married, but only a little more than one-half of black college-educated women were married. Almost one-third of black college-educated women were never married, twice the percentage for white college-educated women.

Black college-educated women are less likely to marry because black college-educated women outnumber black college-educated men. In 2002, 29 percent of white men and 25 percent of white women had attended college. In contrast, the percentages were 16 percent and 17 percent, respectively, for black men and black women. This data indicate that the possibility of "like marrying like" cannot be fully achieved for black college-educated women. A high level of interracial marriage among black men further diminishes the marriage prospects of black college-educated women. Interracial marriage is especially common among highly educated black men.

College-educated black women are doubly squeezed in the marriage market. More than one-half of black college-educated women who were married were married to men who had less education than these black women had (see table). In contrast, only a little more than one-third of white college-educated women who were married were married to men with less education than they had.


References

1. Marcia Guttentag and Paul F. Secord, *Too Many Women? The Sex Ratio Question* (Thousand Oaks, CA: Sage Publications, 1983).

2. Zhenchao Qian and Samuel H. Preston, "Changes in American Marriage, 1972 to 1987: Availability and Forces of Attraction by Age and Education," *American Sociological Review* 58, no. 4 (1993): 482–96.


**Marital Status and Assortative Mating Among College-Educated Women, 2000**

| | Marital status (%) | | | | Of those married, % married to men with | | | |
|---|---|---|---|---|---|---|---|---|
| College-educated women | Currently married | Separated/ divorced | Widowed | Never married | Less than high school | High school | Some college | College+ |
| White | 74 | 8 | z | 17 | 1 | 11 | 23 | 65 |
| Black | 51 | 16 | 1 | 32 | 2 | 16 | 34 | 48 |

z = less than 0.5 percent

Note: Data for women ages 25–44.

Source: Authors' calculations using Census 2000 5% Public Use Microdata Sample (PUMS).

indicator of immigrants' incorporation into American society. Indeed, the extent of racial endogamy among the foreign-born helps us understand the trajectories in adaptation among different immigrant groups and their descendants.[84] For much of the 20th century, intermarriage among white ethnics of different European ancestries eroded cultural and homeland identities and ties. European immigrants (such as Italians or Poles) were, until recently, much less likely to marry descendants of early European settlers. Even then, clear status distinctions of white Europeans were reflected in mate selection patterns.[85]

Immigrants are often married when they arrive in the United States. In this report, we examined only the data for immigrants who arrived in the United States prior to age 20, when the overwhelming majority of them are unmarried. Immigrants' subsequent decisions about when and whom to marry are affected by marriage market conditions in the United States rather than in their home countries. Compared with adult immigrants, immigrants who arrived as children were exposed to the U.S. education system and were more likely to become immersed in American culture and institutions. As these children grow up, their intermarriage patterns, especially with whites or other U.S.-born Americans, arguably reflect their cultural adaptation in American society.

Not surprisingly, the foreign-born in the United States have much different patterns of racial endogamy than their U.S.-born counterparts. In 2000, about 70 percent of foreign-born white men and women were married to U.S.-born whites, reflecting little social distance between U.S.-born whites and immigrants. The story is much different for U.S.-born blacks and black immigrants. Only about one-third of black immigrants were married to U.S.-born blacks. Foreign-born blacks also have much higher rates of interracial marriage than their U.S.-born black counterparts. Perhaps surprisingly, incorporation into mainstream society through marriage is more evident among black immigrants than among U.S.-born blacks. For some black immigrants, marriage to U.S.-born blacks is regarded as downward mobility or as an indicator of downward assimilation.[86]

While U.S.-born Hispanics and Asians are more likely than blacks to marry across racial boundaries, foreign-born Hispanics and Asians are less likely than blacks to do so. One reason is that Hispanic and Asian immigrants are far more numerous than black immigrants, and the opportunities to find mates of the same race are relatively plenty for Hispanic and Asian immigrants. In 2000, nearly 75 percent of Asian immigrant men who came to the United States prior to age 20 married Asian immigrant women. A significantly lower percentage of Asian immigrant women (61 percent) married Asian immigrant men. This suggests that Asian immigrant women have more mate choices, a pattern also observed for their U.S.-born counterparts. Meanwhile, Hispanic immigrant women had a higher percentage of racial and nativity endogamy than Hispanic immigrant men—77 percent and 69 percent, respectively. The different intermarriage patterns of Hispanic and Asian immigrants may be explained in part by the higher educational levels among Asian than among Hispanic immigrants.

Racial boundaries may break down even more as racial minorities make socioeconomic progress and become fully incorporated into American society. Racial boundaries, however, are not likely to disappear quickly, as boundaries did among European white ethnics during much of the 20th century. Marriages between African Americans and whites are still comparatively rare, and there is little evidence over the past decade that this pattern is likely to change quickly over the foreseeable future. For U.S.-born Hispanics and Asians, interracial marriage with whites may even slow in the near future. The continuing influx of foreign-born Hispanics and Asians provides a ready marriage market, expanding the marriage pool for the U.S.-born population of these minorities. In the early 20th century, immigration from Europe was essentially cut off, thus encouraging marriage among different immigrant groups and fostering assimilation. In contrast, U.S.-born racial minorities are now exposed to a continuing influx of potential spouses with similar racial or ethnic backgrounds. Whether the current slowing of racial intermarriage will reverse itself if the U.S. Congress tightens America's borders to new immigrants is far from certain.

## Forecasting America's Future

What can we conclude about the state of marriage and family in the United States? What can we forecast about the future of all of America's families, including racial and ethnic minorities? Will differences in family life continue to be both a cause and a consequence of persistent differences in family and child poverty and well-being?

The optimistic view is that marriage and family are resilient institutions that will continue to evolve in function and form in response to changing social conditions. Indeed, globalization and technological progress have accelerated, to an unprecedented degree, the pace of cultural and economic change in the United States and around the world. The family has responded in kind. Stockbrokers often marvel that the stock market "knows" how to respond daily to changing economic conditions, fiscal and monetary policies, and national and world politics. Those who are optimistic about the state of the American family would probably say that the family also "knows" how to respond or adapt to chang-

ing conditions. These optimists believe that family change will play itself out in due course, but they recognize that the family has, from its beginnings, been highly fluid yet resilient.

On the other hand, pessimists are concerned that family changes over the past three decades—divorce, out-of-wedlock-childbearing, delayed marriage, and cohabitation—have so destroyed the social and moral fabric of American life that the nation may never fully recover. The pessimists believe that, from generation to generation, the stable nuclear family was a source of great national strength and unity. The nuclear family served its primary function well: bearing and raising generation after generation of productive and engaged citizens. If recent studies are our guide, America's new families—such as single-parent families or cohabiting couples—may be performing these primary functions less effectively than traditional families do. The current diversity in American family values and behavior, along with growing racial diversity, also portend a future of accelerated cultural change when today's children reach adulthood and assume adult roles, including starting (or not starting) families of their own.

Our examination of marriage and family change over the past decade has probably only reinforced whichever optimistic or pessimistic view our readers already held. Optimists will point to a slowdown or at least a leveling off of the rapid family change that took place in the 1970s and 1980s. They can point to the overwhelming share of people who want to marry and will marry. The fact that 70 percent of America's children live in married-couple families suggests that most children have two providers and caretakers. Divorce and remarriage mean that children today have more family members who care about them—stepparents and stepsiblings, additional sets of grandparents, and a larger kin network. Immigrants from Asia and Latin America, in many ways, have infused America with values and behaviors that largely support traditional family life.

Pessimists will emphasize that many of the trends of the 1970s and 1980s continued unabated in the 1990s. The percentage of families headed by unmarried single parents increased. Cohabitation supplanted marriage as the first-union experience for most young adults. Sexual activity, pregnancy, and childbirth outside of marriage, along with declines in marital fertility, elevated the percentage of children born outside of marriage to its highest level ever during the 1990s. The children and grandchildren of America's new immigrants are rapidly adopting the marriage and family patterns of the majority population. Marriage and family life for these children of immigrants may ultimately be the modern American life, much as it has been for most of America. Clearly, our results for the 1990s have provided something for both sides of the family debate and the broader debate about America's cultural decline.

Our portrait of America's future is necessarily an ambiguous one. This portrait, however, does highlight several important dimensions of contemporary American families likely to accelerate. For one, our analysis questions whether America's future will even include a typical American family. Growing racial and cultural diversity reinforces this conclusion. While each racial and ethnic group has somewhat different marriage and family profiles, African Americans in particular remain distinctive in many ways: a continuing matrifocal family structure, high rate of out-of-wedlock childbearing, and apparent family fluidity or instability. Our results provide little evidence that the retreat from marriage among African Americans has slowed much in the 1990s, or that it will slow or reverse in the near future. That so many black children today grow up in single-parent families will only add momentum to the continuing transformation of the black family from this generation to the next.

In the "old days," most Americans were born into two-parent families that stayed together. These families had extensive kin networks of social support. Marriage and family life were institutionalized—there was agreement about what it meant to be a husband and wife, mother and father, sister and brother, or grandfather and grandmother. Indeed, there was a set of commonly understood expectations about these roles; and most people lived up to these expectations. But with the proliferation of alternative family forms and their new and ambiguous roles, there aren't today many shared expectations. The family trajectories of young children take many different paths, with different implications for these children's success or failure. Remarriage and now cohabitation have been called "incomplete institutions" precisely because common understandings and behavioral expectations regarding these new forms have remained underdeveloped. Sociologist Andrew Cherlin believes that marriage itself is being deinstitutionalized, as many previously taken-for-granted aspects of marriage and family life disappear. The diverse portrait of American family life presented here provides little reason to dispute Cherlin's claim.[87]

Perhaps more than any other recent demographic or family change, cohabitation has fundamentally altered the family lifecourse. The upward trend in cohabitation is likely to accelerate. Data from the 2000 Census indicate that nearly 500,000 couples are currently cohabiting in America. But the rate of growth of cohabitation accelerated in the 1990s. Cohabitation has served to precede and delay most marriages today. Cohabitation is also especially high among divorced people, and this high cohabitation rate may be one reason why remarriage rates have declined significantly over the past quarter-century.

The once-common attitude that out-of-wedlock childbearing is a social problem that shapes the life course of young mothers can now be questioned if, as one recent study has shown, roughly 40 percent of all

such births occur to cohabiting couples.[88] In these cases, both biological parents are raising these children. Moreover, our own analysis indicates that more than four of 10 cohabiting couples are raising children. Clearly, any attempt to understand modern marriage and family life must take cohabitation into account. Cohabitation has affected the measurement and meaning of virtually every conventional statistic related to marriage, fertility, and divorce. It seems that cohabitation is being institutionalized as a regular part of adult life at the same time that marriage is being deinstitutionalized. Moreover, cohabitation's growing popularity is evident across the panoply of racial and ethnic groups in America, with the exception of most Asian groups.

If rapid changes in the American family have one obvious downside, it is in regard to their negative implications for children's social and economic well-being and their futures. As our analysis demonstrates, children's economic well-being is inextricably linked to the decisions their parents make about marriage, divorce, cohabitation, and out-of-wedlock childbearing. The recent policy push for marriage promotion is a novel social experiment initiated by the federal government, but success is far from certain. To be sure, success may mean a better economic life and future for America's children. But another approach, preferred by most other Western industrialized societies, is to focus less on marriage and more on implementing policies or practices that eliminate the threat of particular parental choices (such as divorce) on children's well-being. In *Poor Kids in a Rich Country*, Lee Rainwater and Timothy Smeeding show that the United States has the highest poverty rate and most inequality among children of 14 other Western industrialized societies, including Sweden, the United Kingdom, and Canada.[89] Ensuring a family wage, adequate child care, better access to secondary and higher education, and sufficient government cash assistance all help make children's economic well-being independent of the good or bad decisions of their parents regarding marriage and family life. Great Britain's Prime Minister Tony Blair has a national goal to eliminate child poverty. In America, we now seem to have the political will and resources to promote marriage and support traditional two-parent families, but we lack the will to fully address the child poverty problem through government subsidies.

Poverty and low income will undoubtedly continue to shape the marital and family trajectories of racial and ethnic minorities, including immigrants. Patterns of racial intermarriage will also surely play a large role in shaping these trajectories. Over the past decade, large percentages of Hispanics and Asians have married U.S.-born whites, a sign that social distances between these groups and whites have narrowed in the 1990s. For most Asians and Hispanics, these numbers grew during the 1990s, as second- and third-generation immigrants gained footing in the United States. The only exception to this trend was among Hispanics, but this relative lack of intermarriage may reflect the recent heavy immigration and growing ancestral and racial diversity of these new entrants to America. Whether this trend indicates Hispanics' growing social distance with U.S.-born whites is difficult to assess without additional study. Still, despite the slowdown of ethnic intermingling, nearly one-half of all Hispanics in America were married to non-Hispanics (mostly whites) in 2000. The implications of interracial marriage patterns will not become fully apparent until the mixed-race children of these couples choose to embrace or self-identify with one culture or the other, or these children choose to become part of a true melting pot.

The implications for assimilation and acculturation are broad, regardless of the answer. At the same time, race constitutes a major barrier for intermarriage between blacks and whites. For blacks, the pace of change has been slow, despite the increases in the economic status of average African Americans. Again, evidence for black exceptionalism remains strong.

Finally, our analysis suggests a growing balkanization of family life in America along economic and racial lines. While the income of single-parent families at the bottom of the income distribution increased during the 1990s, these families often represent the "other" America—the low-income and minority families and children under great stress to make ends meet in a rapidly restructuring and global economy. Job insecurity, little or no health care, inadequate child care, and poor public transportation conspire against struggling single-parent families living from paycheck to paycheck.

The gulf between this other America and U.S.-born, white, dual-career couples with good jobs, employer-paid health benefits and pensions, big houses in the suburbs, and first-rate public schools seems vast. To an unparalleled extent, fulfilling the American Dream depends on the luck of the draw, on the kind of family we are born into and grow up in. Nevertheless, the American public still holds strongly to the belief—and for some, the mistaken belief—in equal opportunity for all.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# Trends in the Well-Being of America's Children

*By William P. O'Hare*

## Introduction

The old African greeting, "How are the children?," reflects the extent to which a society's health is often based on the condition of its children. The well-being of children reflects the functioning of institutions responsible for the care of children, such as families, communities, schools, and social welfare agencies.

It is important to assess the trends in the well-being of America's children because today's children represent the next generation of American adults. Childhood conditions and experiences are clearly linked to well-being in later life in terms of health, educational attainment, and employment.[1] Consequently, how today's children are being cared for has important implications for America's future.

An assessment of America's children is particularly timely because many of the social, economic, demographic, and policy changes that took place in the United States during the 1990s affected children and families. For example:

- Welfare reform, enacted in 1996, ushered in a new relationship between the government and poor families, particularly poor families with children.
- Increased immigration contributed to a U.S. population in which one-fifth of all children were immigrants or were children of foreign-born parents.
- The percentage of mothers in the labor force reached an all-time high, and labor force participation rates for never-married mothers skyrocketed during the late 1990s.
- The number of children in the United States grew by nearly 9 million during the 1990s—the largest increase since the 1950s and a jarring change from the decreases of the 1970s and 1980s.

A good understanding of how children and families are faring is particularly important for policymakers, and data from the decennial census provide a solid grounding for public policy. Empirical scientific evidence is the best foundation for informed debate and policy decisions. In the absence of good data, decisions are likely to be based on anecdotes, ideology, rumors, or other unscientific grounds.

The large size of the decennial census sample gives very reliable data for many groups and geographic areas not reported regularly through other data collection activities. This report uses data from the 2000 Census to provide a detailed picture of today's children and youth in the United States; it also compares these results from the 2000 Census with similar data from the 1990 Census. Also examined are some of the demographic trends during the 1990s related to the well-being of children, and the economic and social forces associated with these trends. Finally, this report addresses post-2000 changes in child well-being, including a look at data from the U.S. Census Bureau's American Community Survey (ACS), which in 2010 will replace the census long questionnaire. The ACS provides an up-to-date assessment of how children have fared since 2000.

## Child Well-Being in the 1990s

Comparing data from the 2000 Census to data from the 1990 Census shows that children have become better off on some key measures of well-being, but worse off on other measures.

The child poverty rate is perhaps the most global and widely used indicator of child well-being, in part because poverty is closely linked to a number of undesirable outcomes in areas such as health, education, emotional welfare, and delinquency.[2] Data from the 2000 Census show that children continue to have a higher poverty rate than any other age group, even the elderly (those ages 65 and older). In 2000, the poverty rate for children was 16 percent, compared with 10 percent for the elderly (see Figure 1, page 202).

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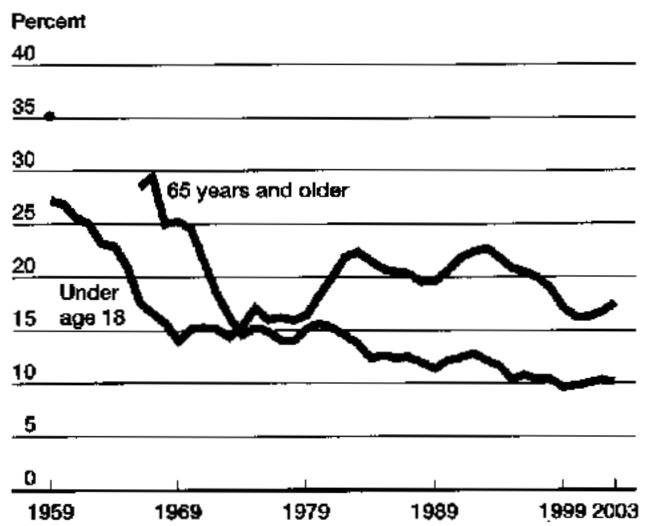
*Figure 1*
**POVERTY AMONG CHILDREN AND ELDERLY, 1959–2003**




Source: U.S. Census Bureau, March Current Population Surveys, 1959–2003.

The child poverty rate has been higher than the elderly poverty rate for the past three decades; but prior to 1973, the reverse was true. In 1959, the child poverty rate (27 percent) was well below the elderly poverty rate (35 percent). Samuel Preston's groundbreaking work showed that the improvement in the standard of living for older Americans is closely related to social policies such as Social Security and Medicare. Examining trends in the early 1980s, Preston concluded: "Conditions have deteriorated for children and improved dramatically for the elderly, and demographic change has been intimately involved in these developments."[3] The dramatic increase in Social Security and Medicare over the past 40 years—these two programs consumed about one-third of the federal budget in 2001—is testimony to the enormous political power of the elderly. Child advocates wonder why society doesn't make similar investments on behalf of children.

Comprehensive analysis of federal spending on children is rare because the federal budget is very complex, but one study found that the per capita expenditure on children in 1997 was $2,290, compared with around $14,000 for the elderly.[4] One major expenditure, coming largely from state and local budgets, is public education. The total outlay for preschool through grade 12 in public schools was $435 billion in 2001. However, even when government monies spent on public education are added to that total, public expenditures for the elderly are still greater than those for children.

The child poverty rate for related children (children who are related to the householder) fell from 20 percent in 1990 to 16 percent in 2000. These figures reflect the official poverty rate, but this measure of poverty has several shortcomings (see Box 1). Despite its shortcomings, however, the poverty measure is useful because it identifies a set of families who have a very high probability of significant economic stress. Most Americans would agree that the prospect of trying to support oneself, a spouse, and two children on an income of less than $18,660 a year would be daunting anywhere in the country.

The decline of child poverty in the 1990s was also widespread. There was a decrease in child poverty between 1990 and 2000 in 39 states.[5] Only five states and the District of Columbia experienced an increase in child poverty rates between 1990 and 2000. It is clear that child poverty rates fell for blacks, Hispanics, Asians, and American Indians; however, because the 2000 Census allowed respondents to choose more than one race or ethnicity, we cannot make strict comparisons between the racial groups shown in the 1990 Census and those shown in the 2000 Census.

The decline in child poverty during the 1990s was accompanied by more children living in affluent households. Between 1990 and 2000, the number and share of children living in the most affluent households (yearly incomes greater than $100,000) increased. Census data show that 14 percent of children lived in affluent households in 2000, up from 10 percent in 1990. In terms of child outcomes, however, the movement from middle-income to upper-income households (reflected in the rise of children in affluent households) is not as important as the movement of families from low-income to middle-income status (reflected in the falling child poverty rate) because negative child outcomes are heavily concentrated in the low-income population.

## The Big Picture

Fortunately, the examination of changes in the well-being of children during the 1990s has benefited from a flurry of measurement and reporting activity on child well-being during that decade (see Box 2, page 204). Much of this activity involved the creation and reporting of social indicators. Since social indicators reflect aggregate conditions of a society or population—such as the percentage of children who are in poverty—these indicators are very valuable in tracking whether a society or a certain population is moving in a desired direction.

Four widely respected reports, all showing trends in child well-being based on multiple indicators, indicate that child well-being improved during the last half of the 1990s.

The first report is a comprehensive index of child well-being developed by Kenneth Land and associates that tracks overall changes in child welfare since 1975.

This index, the Child Well-Being Index (CWI), shows that children's welfare clearly improved during the last half of the 1990s.[6] The CWI is based on 28 statistical indicators reflecting seven separate areas of well-being:

- Material well-being;
- Health;
- Safety and behavioral concerns;
- Educational attainment;
- Place in community;
- Social relationships; and
- Emotional and spiritual well-being.

The initial value of the index was set at 100, based on 1975 values. Subsequent index values above 100 reflect an improvement in child well-being relative to 1975, and values below 100 reflect a deterioration of child well-being relative to 1975.

Between 1975 and 1993, the index fell from 100.0 to 93.6, reflecting a general decline in the well-being of children. The value of the CWI was below 100 for all but two of the years between 1975 and 1993. But the index grew by 10 points between 1993 and 2000, indicating enormous improvement in child well-being during this relatively short period.

Second, the KIDS COUNT report, issued annually by the Annie E. Casey Foundation since 1990, tracks the well-being of children by state. The 2003 KIDS COUNT report shows improvement between 1990 and 2000 on eight of the 10 indicators that KIDS COUNT uses to track child well-being, and these improvements were widespread.[7] Forty-three states improved on six or more

*Box 1*
## Measuring Poverty

While most of the data on poverty is provided by the U.S. Census Bureau, the U.S. Office of Management and Budget is the federal agency that determines the official definition of poverty.

The current definition of poverty was developed by Mollie Orshansky in the mid-1960s, in connection with President Lyndon Johnson's War on Poverty. Orshansky used a survey from 1955 that showed poor families spent about one-third of their income on food. Orshansky then multiplied the cost of the U.S. Department of Agriculture's economy food plan by three to derive the poverty line, and then adjusted the poverty line for families of various sizes.

The official poverty measure consists of a series of income thresholds based on family size and composition. The thresholds are adjusted every year to account for inflation. The 2003 poverty threshold was $14,824 for a family of one adult and two children, and $18,660 for a family of two adults and two children.[1]

However, a number of researchers have been critical of the official measure.[2] Some analysts think the current standard underestimates real poverty, while others think the measure overstates the number of needy families. In the last several years, the Census Bureau has published a set of experimental poverty measures that incorporate many of the changes called for in a study by the National Academies of Science, but the official definition of poverty has not yet changed.[3] Some data indicate that the poverty thresholds are unrealistically low. Polls show that the public would set the poverty thresholds about 25 percent higher than the current level.[4]

One problem with the current poverty measure is that it does not take taxes into consideration. The poverty measure assumes that all the income a family earns is available to cover expenses, but a portion of the income, even for families below the poverty line, must go to pay taxes. Another problem is that the poverty thresholds are the same across the country, ignoring the large geographic variation in the cost of living.

In addition, noncash government benefits like Medicaid, food stamps, and public housing are not including in calculating poverty. While excluding noncash benefits was not a big issue when the poverty definition was created in the 1960s, it is now: Noncash benefits account for about three-quarters of all government assistance distributed to low-income recipients. Excluding noncash benefits in the poverty calculation yields a poverty measure that does not reflect the impact of major antipoverty programs.

Finally, the poverty calculation also does not include such work costs as child care, transportation, and clothes. Increases in single-parent families and in the number of females in the labor force mean that more poor families must pay for child-care expenses. In low-income families, child-care costs often amount to 25 percent of monthly expenses.

Creating a new official poverty measure has been discussed for many years, but the outlook for change is not positive. No sitting president is likely to make a change in the poverty definition that would make it appear there are more poor people; and the political party out of power is unlikely to agree to changes that would make it appear there are fewer poor people. Despite these shortcomings in the poverty measure, it is still useful because it identifies a set of economically vulnerable families.

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*Box 2*

## Advancements in Measuring and Reporting on Child Well-Being

During the 1990s, many organizations and agencies created important annual reports and other data-gathering and dissemination vehicles, all of which broaden our understanding of child well-being.

The federal government now produces two annual reports on the well-being of children:

- In the mid-1990s, several federal statistical agencies formed the Federal Interagency Forum on Child and Family Statistics. Each year, the forum publishes *America's Children: Key National Indicators of Well-Being*. This report provides trend data for more than 25 key indicators of child well-being.
- In 1996, the U.S. Department of Health and Human Services began publishing *Trends in the Well-Being of America's Children and Youth*, which provides data on dozens of measures related to the well-being of children.

The 1990s also saw the creation of the Youth Risk Behavior Surveillance System from the Centers for Disease Control and Prevention (CDC). The CDC provides several annual measures of well-being for adolescents. Government statistical sources, such as the U.S. Census Bureau's *Current Population Survey* and the vital events reported by the National Center on Health Statistics, also provide annual data on trends.

More recently, the federal government's General Accountability Office and the National Academies of Science have begun working on a national well-being indicator system. While this system is broader than child statistics, the development of child indicators research and reporting during the 1990s undoubtedly helped stimulate support for this project.

Nongovernmental organizations such as the Annie E. Casey Foundation, Child Trends, the National Center on Child Poverty, and the Foundation for Child Development now produce regular, data-based reports on the well-being of America's children. *The Future of Children* series, initiated by the David and Lucile Packard Foundation in the early 1990s, provides the best scientific information on selected child topics. Also, the Children's Defense Fund has issued a data-rich *State of the Child Report* every year since the late 1980s.

Additionally, many state-level data books are now published every year. For example, in 2000, the Maryland Partnership for Children, Youth, and Families started a yearly report to provide a comprehensive picture of the well-being of Maryland's children.[1] In 2001, the state of Maine began publishing *Maine Marks*, which provides statistical indicators for children, families, and communities in Maine.[2] The Alaska Department of Health and Social Services, along with the Alaska Department of Education and Early Development, publish *Building Blocks*.[3]

During the 1990s, infrastructure for developing the field of child indicators began to emerge. For example, in 1999, Child Trends started publishing a newsletter called *The Child Indicator*. And SINET (Social Indicators Network News) often includes information on indicators of child well-being. Also, the International Society for Quality of Life Studies has regular meetings focused on quality-of-life issues including child well-being.

Research conducted in 2000 found nearly 100 ongoing projects devoted to measuring and reporting the well-being of children and families; many more projects have emerged since then.[4]

Increased statistical reporting on children, particularly comprehensive reports, has stimulated government action. A recent report from the National Governors Association identified 16 states that have started Children's Cabinets,[5] and nearly all of those cabinets were started in the 1990s.

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3. Alaska Dept. of Health and Social Services and Dept. of Education and Early Development, *Building Blocks: Continuing the Progress of Smart Start—The Next Steps for Supporting Alaska's Young Children and Their Families* (Juneau, AK: Alaska Dept. of Health and Social Services and Dept. of Education and Early Development, 2001).

4. Child Trends, *Indicators of Child, Youth, and Family Well-Being: A Selected Inventory of Existing Projects* (Washington, DC: Child Trends, 2000).

5. National Governors Association, *A Governors Guide to Children's Cabinets* (Washington, DC: National Governors Association, 2004). To better coordinate efforts, a children's cabinet pulls together several state agencies with responsibilities for children.


indicators. While many of the improvements were not large or statistically significant, the overall trend is clear.

Most of the improvement during the 1990s occurred in the last half of the decade (see Table 1). Between 1990 and 1995, only five of the 10 KIDS COUNT indicators improved; but between 1995 and 2000, eight of the 10 indicators improved.

Third, the Federal Interagency Forum on Child and Family Statistics annual report, *America's Children*, shows that most of the 27 indicators used in that report to measure child well-being improved during the late 1990s.[8] The forum does not combine the data in its report into an overall index, but a study that converted the data from the *America's Children* report into an overall index using the methodology developed by Land and Associates showed a 9 percent improvement in child well-being between 1995 and 2000.[9] Since most of the indicators used in the Land report come from the *America's Children* report, it is not surprising that the results are similar.

Fourth, another annual federal government report—*Trends in the Well-Being of American's Children and Youth*, a compendium of data on children and teenagers[10]—confirms the generally positive trend for children's well-

*Table 1*

**CHANGES IN KEY INDICATORS OF CHILD WELL-BEING, 1990, 1995, AND 2000**

| Key indicator | 1990 | 1995 | 2000 |
|---|---|---|---|
| Low-birthweight babies (%) | 7.0 | 7.3 | 7.6 |
| Infant mortality rate (deaths per 1,000 live births) | 9.2 | 7.6 | 6.9 |
| Child death rate (deaths per 100,000 children ages 1–14) | 31 | 28 | 22 |
| Teen death rate by accident, homicide, and suicide (deaths per 100,000 teens ages 15–19) | 71 | 65 | 51 |
| Teen birth rate (births per 1,000 females ages 15–17) | 37 | 36 | 27 |
| Teens who are high school dropouts (ages 16–19) (%) | 10 | 10 | 9 |
| Teens not attending school and not working (ages 16–19) (%) | 10 | 9 | 8 |
| Children living in families where no parent works full-time/year-round (%) | 30 | 30 | 24 |
| Children living in poverty (%) | 20 | 21 | 17 |
| Children living in single-parent families (%) | 24 | 27 | 28 |

Source: 2003 *KIDS COUNT Data Book*.

being. This report, while not as systematic as the three other reports cited above in assessing recent changes in the well-being of America's children, shows that several important indicators moved in a positive direction during the 1990s:

- In 2000, the child poverty rate reached its lowest point since the late 1970s.
- The teen birth rate fell steadily between 1991 and 2000.
- The steady, decades-long increase in the percentage of children living in single-parent families ended in the mid-1990s.
- The infant mortality rate decreased by 25 percent in the 1990s.

But not all trends were positive. For example, there was a large increase in obesity among children. The increase in the prevalence of obese children was so powerful that the health domain was the only domain in the Child Well-Being Index that moved in a negative direction during the late 1990s.

There are important geographic dimensions to trends in child well-being during the 1990s as well. Child well-being in California, Maryland, and New Jersey improved by 20 percent or more during the 1990s; Wisconsin and Nebraska experienced a decline in overall child well-being during the decade; and North Dakota and Kansas showed no change.[11]

There are large overlaps in the specific indicators used in these four reports, which is understandable because the reports are all trying to measure child well-being. While these reports are not independent in terms of the measures included, it is noteworthy that reports from the federal government, a major university, and a nonprofit organization all lead to the same conclusion.

## Well-Being of Minority Children

A balanced reading of American history would show that most racial groups in the United States have experienced some degree of discrimination and unequal access to education, jobs, and housing. Consequently, it is not surprising that black, Latino, and American Indian children trail the non-Hispanic white population on most measures of well-being (see Table 2, page 206). Given these differences, it is important to disaggregate overall trends of well-being by looking separately at children in minority groups.

With respect to the well-being of minority children during the 1990s, there is a very important distinction to be made between *levels* and *trends*. The level of child well-being for a specific group reflects the relative status of a group of children at a given point in time, while trends reflect changes over time. During the 1990s, these two dimensions showed very different results when minority children were compared with white children.

The average well-being of African American, Hispanic, and American Indian children is lower than the well-being of non-Hispanic white children. Moreover, when decennial census data are examined, that pattern is seen on a host of indicators in nearly every state. The disadvantaged position of minority children today suggests that the long-standing gap between the majority white population and most minority groups is not likely to close soon without major new efforts.

The *America's Children* report for 2004 shows that, relative to white children, black and Hispanic children:[12]

- Have higher poverty rates;
- Have lower rates of secure parental employment;
- Have lower rates of health insurance;
- Have poorer health (as self-reported);
- Are more likely to be overweight;
- Are less likely to be immunized;

*Table 2*

**SELECTED INDICATORS OF CHILD WELL-BEING BY RACE AND HISPANIC ORIGIN, VARIOUS YEARS**

| Key Indicator | All children | White | Black | Asian* | American Indian* | Hispanic |
|---|---|---|---|---|---|---|
| Low birthweight babies, 2002 (%) | 7.8 | 6.9 | 13.4 | 7.8 | 7.2 | 6.5 |
| Infant mortality rate (deaths per 1,000 live births), 2001 | 6.8 | 5.7 | 13.5 | 4.7 | 9.7 | 5.4 |
| Child death rate (deaths per 100,000 children ages 1–14), 2001 | 22 | 20 | 31 | 15 | 29 | 19 |
| Teen death rate by accident, homicide, and suicide (deaths per 100,000 teens ages 15–19), 2001 | 50 | 48 | 63 | 28 | 92 | 47 |
| Teen birth rate (births per 1,000 females ages 15–17), 2002 | 23 | 13 | 41 | 9 | 31 | 51 |
| High school dropout rate (teens ages 16–19 not in school and not high school graduates), 2003 (%) | 8 | 6 | 10 | 5 | 10 | 17 |
| Teens not attending school and not working (ages 16–19), 2003 (%) | 9 | 7 | 14 | 6 | 18 | 13 |
| Children living in families where no parent works full-time/ year-round, 2003 (%) | 25 | 19 | 42 | 19 | 43 | 31 |
| Children living in poverty, 2003 (%) | 17 | 9 | 32 | 12 | 35 | 29 |
| Children living in single-parent families, 2003 (%) | 28 | 22 | 59 | 13 | 49 | 30 |

* The data for the following indicators for Asian and Pacific Islander children and American Indian and Alaska Native children include both those who selected Hispanic Origin and those who did not: low birthweight babies, infant mortality rate, child death rate, and teen birth rate.

Note: All data are reported for the most recent year available. Except where noted above, all data reported for white, black, Asian, and American Indian children are reported for non-Hispanic only.

Source: 2004 *KIDS COUNT Data Book* (www.aecf.org/kidscount/databook/indicators.htm, accessed Nov. 16, 2004).

- Have higher rates of adolescent mortality;
- Have higher teen birth rates;
- Are less likely to be read to as a child;
- Do less well on standardized tests;
- Are less likely to complete high school; and
- Are more likely to be out of school and out of work.

Every minority group, including Asians, has a higher child poverty rate than non-Hispanic whites. Blacks, Hispanics, and American Indians had child poverty rates two to three times those of non-Hispanic whites. Moreover, when compared with non-Hispanic white children, minorities are more likely to be deeper in poverty, to spend more of their childhood in poverty, and to live in neighborhoods with high poverty rates.[13]

The one major exception to this pattern is what is often called the "Hispanic paradox." Despite high levels of poverty and lower educational attainment among Hispanics, birth outcomes (infant mortality and low birthweight, for example) for Hispanics are as good as or better than those for non-Hispanic whites. There is little consensus among experts on the reasons for this paradox. But one theory is that young Hispanic women are less likely to smoke, drink alcohol, or use illegal drugs prior to or during pregnancy.

Among minority groups, Asians are relatively unique because they are more like non-Hispanic whites on most measures of child well-being—education and income among Asians are similar to education and income among non-Hispanic whites. It is worth noting, however, that there is a great deal of diversity in socio-economic status among Asian ethnic groups. For example, the child poverty rate among Japanese Americans (6 percent) and Asian Indians (12 percent) is relatively low, compared with the child poverty rate among Cambodians (38 percent) and Laotians (25 percent).

However, when it comes to assessing trends in child well-being during the last half of the 1990s, the situations for non-Hispanic whites and other racial and ethnic groups are reversed. On many measures, black and Hispanic children actually improved more than non-Hispanic white children during this period. During the last half of the 1990s, the Child Well-Being Index improved by 12 percent for black children, by 10 percent for Hispanic children, and by only 7 percent for white children.[14]

Other key measures show similar improvements for black, Hispanic, and American Indian children. For example, poverty among black children fell from 45 percent in 1990 to an all-time low of 30 percent in 2001, and Hispanic child poverty fell from 38 percent to 28 percent during the same period (also an all-time low).[15]

The poverty rate for American Indian children fell from 39 percent in 1990 to 32 percent in 2000. The poverty rate for non-Hispanic white children fell from 12 percent in 1990 to 10 percent in 2000.

The percentage of black and Hispanic children in poverty fell dramatically during the 1990s, but further analysis shows that the percent of black and Hispanic children living in near-poverty families (those families with household incomes between 100 percent and 200 percent of the poverty threshold) increased between the late 1980 and the late 1990s.[16]

*Table 3*

**CHILDREN'S RECEIPT OF WELFARE BENEFITS BY POVERTY LEVEL, 2003**

| Welfare benefit | Percent of child beneficiaries living in families below 100% of poverty | Percent of child beneficiaries living in families between 100% and 200% of poverty | Total number of child beneficiaries (millions) |
|---|---|---|---|
| Food stamps | 68 | 27 | 9.2 |
| Free or reduced-price school lunches | 45 | 40 | 17.6 |
| State Children's Health Insurance Program or Medicaid | 42 | 33 | 21.4 |
| Subsidized housing | 68 | 24 | 4.3 |
| Cash public assistance or welfare | 60 | 24 | 5.6 |
| Child-care subsidy | 45 | 30 | 1.8 |
| Energy assistance | 63 | 33 | 2.4 |

Note: Only children in the household and poverty universes are included.
Source: U.S. Census Bureau, March Current Population Survey, 2004.

Large numbers of black and Hispanic children moved out of the most dire circumstances during the 1990s, but many of these children remain in economically vulnerable families. This vulnerability is implicitly recognized in many government assistance programs, which set income eligibility thresholds well above the poverty line. Table 3 shows that a large share of recipients of government benefits—the majority of beneficiaries in some programs—have incomes above the poverty line.

Moreover, there is an intersection between geography and race. Among the five states that improved the most in child well-being during the 1990s (California, Maryland, New Jersey, Michigan, and Minnesota), 51 percent of the children in those states were racial or Hispanic minorities; among the five states that improved the least (Wisconsin, Nebraska, North Dakota, Kansas, and Montana), only 27 percent of children in those states were racial or Hispanic minorities.

In general, minority children were worse off than non-Hispanic white children in 2000, but on many measures of well-being, minority children improved more than non-Hispanic white children during the 1990s.

## Child Well-Being and Public Perceptions

Despite all the positive trends for children during the 1990s, many people still have a gloomy view of the well-being of children.[17] The negative view of teenagers' well-being is particularly common, because a large share of the public is not aware of many of the most significant improvements during the 1990s in the welfare of children:

- The teen birth rate has decreased steadily since 1991.
- The percentage of teens committing violent crimes has decreased over the last five years.

A 2003 survey found that only 19 percent of the public thought that the number of children on welfare had decreased since federal welfare reform had been passed in 1996; in fact, that caseload was cut in half during this period.[18] The decline in the number of children on welfare is not necessarily a sign of improved child well-being, but the mismatch between public perceptions and data trends highlights the extent to which a large number of people are ill-informed about some major trends among children.

Some experts believe the mismatch between public perceptions and demographic reality is a reflection of the media's emphasis on bad news. A constant barrage of negative stories and images about children and youth distorts the public's view of this population. Also, news stories often focus on one person's experience and ignore broad trends or patterns. One example of this distortion is how the media focus on homicides among teenagers. Most big-city media outlets regularly reported on young homicide victims during the 1990s, leaving the impression that these homicides were increasing when, in fact, the teen homicide rate actually fell by almost 50 percent between 1990 and 2000.

Child advocates may have contributed to these misperceptions because some advocates constantly trumpet problems rather than highlighting improvements. Also, in some cases, positive trends of the late 1990s are a reversal of long-term negative trends, and long-term trends take more time to fade in people's minds.

Observers also feel that the public's failure to recognize many of the positive trends among children undermines support for government assistance programs. A broad segment of the public continues to feel that government programs just don't work, and that perception

is reinforced by the incorrect but general perception that trends regarding children are getting worse.

## Improvements Despite Demographic Countertrends

The improvements in child well-being that occurred in the 1990s are somewhat surprising in light of five major demographic trends that also occurred during that period:

- An increasing number of children;
- An increasing share of the child population from racial or Hispanic minority groups;
- An increasing number of immigrant children;
- An increasing concentration of children in states where child outcomes are below average; and
- An increasing number of children living in single-parent families.

One would expect any one of these demographic trends to depress child well-being. But the improvements in child well-being suggest that the forces behind these improvements were more powerful than the demographic trends outlined above.

### More Children

The total number of children in the United States increased by almost 9 million during the 1990s. During the 20th century, the baby-boom decade of the 1950s was the only decade that saw a bigger numerical increase (see Table 4).

The increase in the number of children during the 1990s stands in stark contrast to the decreases of the 1970s. During the 1970s, the number of children fell by 8 percent, as the last of the baby boomers moved out of childhood. During the 1980s, the number of children also fell slightly.

The large increase in the number of children during the 1990s notwithstanding, the United States is much less of a child-centered society now than it has been. In 1900, 40 percent of the U.S. population was under age 18. Even as recently as 1960, near the height of the baby boom, 36 percent of the population was under age 18. However, just 40 years later, children's share of the U.S. population had dropped to 26 percent. The 1960 Census revealed that 51 percent of all households had at least one child, compared with slightly more than one-third of all households in 2000.[19]

The long-term decline in children as a percent of the population is the result of two major demographic trends. First, fertility rates fell over the last part of the 20th century. Second, increases in life expectancy led to a larger adult population in 2000—more Americans now survive to older ages. The impact of these two trends has been mitigated to some extent during the 1990s because of increased immigration. Immigrants tend to be young adults who often bring children with them or have children soon after arriving. Very few older people migrate to new countries.

*Table 4*
**Children in the U.S. Population, 1900–2000**

| Year | Total U.S. population (millions) | U.S. population under age 18 | |
|---|---|---|---|
| | | Total (millions) | Percent |
| 1900 | 76.1 | 30.7 | 40 |
| 1910 | 92.4 | 35.1 | 38 |
| 1920 | 106.5 | 39.6 | 37 |
| 1930 | 123.1 | 43.0 | 35 |
| 1940 | 132.1 | 40.4 | 31 |
| 1950 | 151.7 | 47.1 | 31 |
| 1960 | 180.7 | 64.5 | 36 |
| 1970 | 204.9 | 69.7 | 34 |
| 1980 | 226.5 | 63.8 | 28 |
| 1990 | 248.7 | 63.6 | 26 |
| 2000 | 281.4 | 72.3 | 26 |

Source: W.P. O'Hare, "The Child Population: First Data From the 2000 Census" (2001): table 1.

### Geographic Dimensions of Child Population Change

Just as broad "national" data mask differences among racial and ethnic subgroups, these data also mask important differences among states and regions of the country. To illustrate this point, consider this: The most recent census data on income and poverty show that, of the 50 states, 42 had child poverty rates statistically significantly different from the national poverty rate.

The vast majority of children (83 percent) live in metropolitan areas, although most live in suburbs just outside the country's biggest cities. About 10 percent of all children live in "micropolitan areas"—smaller towns and surrounding areas outside metropolitan areas, with populations from 15,000 to 50,000. Less than 7 percent of all children live in the most rural and remote areas of the country outside metropolitan and micropolitan areas.

But the growth of the child population between 1990 and 2000 was not spread evenly across the country; most of the growth in the child population during the 1990s took place in metropolitan areas—a 16 percent increase during the 1990s, compared with a 4 percent increase in micropolitan areas; and no change in the number of children (5 million) living in the nation's most remote rural areas.

### City and County Changes

Collectively, the number of children living in the 245 largest cities in the United States (those with 100,000 or more people) grew from 16 million in 1990 to 19 million in 2000. This 17 percent increase means that the child population in large cities grew more rapidly than did the child population in the rest of the country. Much of the population growth in large cities was from immigration.

There is an important regional overlay to the changes in cities and, to a lesser extent, counties. Cities in the Northeast and Midwest generally lost population or did not grow rapidly, while cities in the South and Southwest often experienced dramatic growth. This population loss and growth was due mainly to shifting economic opportunities and immigration.

One exception to this regional pattern is New York City. Not surprisingly, New York City, America's largest city, had the most children in 2000 (2 million), but it also had the biggest numerical increase between 1990 and 2000 of any large city (255,000). After New York City, the nine cities that added the most children in the 1990s were all in the South and West. Las Vegas was the largest of the fast-growing cities, adding 60,000 children (a 92 percent increase) during the 1990s.

Most of the cities with child population losses were located in the Northeast and Midwest. Baltimore lost the largest number of children between 1990 and 2000, followed by St. Louis and Cincinnati. The loss of good-paying jobs, especially manufacturing jobs, in these cities led to out-migration of families.

### Children in Rural America

About one-fifth of all children in the United States live in rural areas. In some respects, they live in very different circumstances than their urban counterparts.

Overall, the number of children in nonmetropolitan counties grew by only 3 percent during the 1990s, and the number of children in many rural parts of the country actually declined during the 1990s, especially in a swath of counties from the Dakotas to West Texas. Moreover, in one-third of the rural counties that gained in overall population, the number of children fell during the 1990s, reflecting the sustained out-migration of young families with children and signaling big shifts in the age structure of these communities.

The out-migration of children from rural America is a reflection of more difficult conditions there. The child poverty rate in rural America fell during the late 1990s, but not as rapidly as it did in metropolitan areas.[20] In 1994, the child poverty rate for nonmetro children (23 percent) was only 1 percentage point above the poverty rate for children in metro areas; by 2000, this gap had grown to 5 percentage points (20 percent in rural areas, compared with 15 percent in metro areas). The 2000 Census also shows that, of the 50 counties with the highest child poverty rates, 48 were rural. It appears that the economic expansion of the 1990s benefited children living in central cities and suburbs more than rural children.

### School Enrollment

The dramatic increase in the number of children also increased school enrollment. The number of school-age children (ages 5 to 17) increased from 45 million in 1990 to 53 million in 2000, and the number of 5-to-17-year-olds enrolled in school increased from 42 million in 1990 to 51 million in 2000. The number of children enrolled in elementary and secondary schools now matches the all-time high set when the youngest baby boomers were entering first grade in 1970.[21]

As a result of this surge in school enrollment, school construction costs doubled.[22] Funds for schools come mostly from state and local budgets. During the late 1990s, when state government budgets were flush because the economy was strong, construction funding was less of a problem, but state budgets have been squeezed since the economic downturn in 2000. The need for additional teachers sent administrators scrambling for new recruits, and too often administrators hired people who were not trained to teach.

Not only did the number of students increase during the 1990s, age-specific enrollment rates also increased over that decade. In 2000, 97 percent of 5-to-17-year-olds were enrolled in school, compared with only 93 percent in 1990.

One reason for the increased attendance rate in the 1990s is the enactment of more extensive provisions for students in need of special education. The Americans with Disabilities Act and the Individuals with Disabilities Education Act stimulated more programs and better outreach for children with disabilities. The number of disabled children served by special education programs increased from 4.4 million in 1991 to 5.7 million in 2000.[23]

On the other hand, in 2000, nearly 750,000 children between the ages of 6 and 16 were not enrolled in school. One explanation for these "missing" children is the increase in home-schooled children. There were an estimated 1 million children of all ages being home-schooled in 2003; the percentage of children being schooled at home has increased over the past 15 years.[24]

Finally, some of the pressure on the public school system caused by these record increases in the school-age population during the 1990s was reduced because more children are now going to private schools. In 2000, there were 6 million children enrolled in private schools, compared with around 5 million in 1990; the percentage of children in private school inched up from 10.2 percent in 1990 to 11.3 percent in 2000.

Americans are spending more time in school. More Americans are starting school younger and staying in school longer than they were a generation ago. The share of 3-to-5-year-olds enrolled in school increased

from 42 percent in 1990 to 61 percent in 2000, and the high school dropout rate fell from 10 percent in 1990 to 8 percent in 2000. The share of young adults ages 18 to 24 who were enrolled in school also increased during the 1990s, from 55 percent in 1990 to 57 percent in 2000.

**The Preschool Population**

The preschool population (under age 5) is another important demographic group, and the increase in the number of preschoolers during the 1990s has implications for both child care and early education.

The number of preschoolers increased from 18 million in 1990 to 19 million in 2000. The nation's formal and informal child-care systems were already strained before this increase. Recent Census Bureau estimates indicate that, between 2000 and 2003, the number of children under age 5 increased by almost 600,000.[25]

The preschool population became the focus of attention during the 1990s because research showed that social stimulation experienced in the first few years of life plays a crucial role in later development. Researchers also tied early brain development, child care, and preschool activities to a child's readiness for school. As students entered kindergarten, scores on reading, math, and general knowledge were higher for those who participated in out-of-home care than for those who didn't participate in such care; and the scores were higher for those who participated in center-based care (more likely to be a preschool) than for those who were in home-based care.[26]

Recent studies show children from higher-income families are more likely than those from lower-income families to be proficient in reading and mathematics when they enter school because, in part, they are more likely to have attended preschool.[27] In this context, the federal government's Head Start program and other public programs that provide preschool experiences for needy children can play an important role in giving children from low-income families the same start in school as children from more affluent families.

The percentage of children ages 3 to 5 enrolled in preprimary education increased from 42 percent in 1990 to 61 percent in 2000. This increased number of preschoolers is partly a reflection of expanded prekindergarten programs offered by states. Forty states now fund prekindergarten programs for 4-year-olds. This increased emphasis on preschool education is reflected by the growing number of states (currently 21) that require prekindergarten teachers to have bachelor's degrees.[28]

Those who advocate more public support for preschool programs often point to a very favorable cost-benefit ratio for these programs. Quality preschool programs can reduce the need for remedial education or special education, increase high school graduation rates, increase employment and earnings, and reduce arrest rates later in life.[29]

## More Minorities

Another major trend documented in the 2000 Census is the growing racial and ethnic diversity of the child population. Pinpointing the exact size of changes in racial groups is complicated because, in the 2000 Census—for the first time in any census—respondents could choose more than one race. Still, it is clear there was a significant change in the racial composition of the child population during the 1990s (see Table 5).

The share of non-Hispanic white children fell from 69 percent in 1990 to 61 percent in 2000; the number of non-Hispanic white children remained relatively stable (at about 44 million). But the number of minority children grew rapidly; during the 1990s, minority children accounted for about 98 percent of the growth in the child population of the United States.

Hispanic children accounted for about 5 million of the 9 million children added to the total U.S. population between 1990 and 2000. Racial minorities (Asians, blacks, and American Indians) accounted for most of the remaining increase. Only 200,000 of the 9 million children added to the population during the 1990s were non-Hispanic white children.

Racial diversity is also increasing more rapidly among children than it is among adults. Minority children accounted for 39 percent of the population under age 18 in 2000, compared with only 28 percent of the adult population. Minorities make up a larger share of the child population because immigrants tend to be younger and the recent immigration stream is heavily Hispanic and Asian. Racial diversity is also more advanced among children because some minority groups have higher birth rates than non-Hispanic whites.

Since minority children typically have poorer child outcomes than non-Hispanic white children, we would expect the growing minority youth population of the 1990s to have lower outcomes of child well-being. But those lower outcomes didn't materialize. Evidence from the 1990s indicates that the United States can accommodate growing numbers of minority children and still achieve improvements in child well-being.

## More Children in Immigrant Families

During the 1990s, there was an upsurge in the number of children living in immigrant families (children born outside the United States or with at least one parent born outside the United States). While children born in the United States to immigrant parents are considered U.S. citizens and thus are not technically immigrants, these children would not be here if were not for immigration. The greater increase in racial and ethnic diversity among children than among adults is due mostly to immigration. Immigrants are typically young adults who are likely to immigrate with children or are likely

*Table 5*

**PERCENT OF U.S. NON-HISPANIC WHITE, NON-HISPANIC RACIAL MINORITY, AND HISPANIC CHILDREN, 1980, 1990, AND 2000**

| Children | 1980 (%) | 1990 (%) | 2000 (%) |
|---|---|---|---|
| White non-Hispanic | 74 | 69 | 61 |
| Non-Hispanic racial minority | 17 | 19 | 22 |
| Hispanic | 9 | 12 | 17 |

Note: Children who marked white and another racial category in the 2000 Census are classified as minorities.

Source: Author's calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

to have children soon after arriving. In 2000, there were 13.5 million immigrant children in the United States.

Unlike the 1950s, when the number of children grew because of an increased number of births to mostly U.S.-born white parents, much of the increase in the number of children in the 1990s was fueled by immigration. The number of immigrant children increased from 8.3 million in 1990 to 13.5 million in 2000, and this increase accounted for 60 percent of the total increase between 1990 and 2000 in the number of children in the United States.[30] By 2002, the number of immigrant children had risen to almost 16 million, or more than one of every five children in the United States.[31]

The surge of immigrants during the 1990s has important implications for some measures of child well-being. The child poverty rate for immigrant children in 2002 was 21 percent, compared with 16 percent for nonimmigrant children. In addition, a large share of children from immigrant families do not speak English as their primary language at home, and these children have cultural traditions unfamiliar to many educators and service providers. The number of 5-to-17-year-olds living in households where English was not the primarily language increased from 6 million in 1990 to 10 million in 2000. Census data show that among 18-to-24-year-olds, 10 percent of those who spoke only English had not finished high school, compared with 31 percent of 18-to-24-year-olds who were living in households where English was not the primary language.[32]

Table 6 shows several child outcome measures for children in immigrant families and for children in nonimmigrant families. In general, immigrant children trail U.S.-born children, but on some indicators, children in immigrant families have better outcomes than nonimmigrants. For example, immigrant families are less likely than U.S.-born families to be headed by a single parent. In 2002, 22 percent of children in immigrant families were living in single-parent families, compared with 33 percent for nonimmigrant families. It is also important

*Table 6*

**WELL-BEING OF CHILDREN BY IMMIGRANT STATUS, 2002**

| Immigrant status* | Immigrant children (%) | Nonimmigrant children (%) |
|---|---|---|
| **Children under age 18** | | |
| Living in poverty | 21 | 16 |
| Living in single-parent families | 22 | 33 |
| Living in families where no parent works full-time/year-round | 29 | 29 |
| Living with a household head who is a high school dropout | 35 | 11 |
| Living in households without a telephone | 3 | 4 |
| Living in households without a vehicle | 8 | 6 |
| Children who have difficulty speaking English (ages 5–17) | 22 | 1 |
| Teens who are high school dropouts (ages 16–19) | 15 | 6 |
| Teens not attending school and not working (ages 16–19) | 11 | 7 |

* An immigrant child is defined as not born in the United States, or at least one of the child's parents was not born in the United States.

Source: Author's calculations using the 2002 American Community Survey Public Use Microdata Sample (PUMS).

to recognize that many immigrant children are not disadvantaged: Twenty-seven percent of immigrant children lived in households where at least one parent had a college degree, compared with 31 percent of nonimmigrant children.[33]

One of the unique challenges faced by many children in immigrant families is the large number—9 million—who are living in "mixed-status "families, in which the child is a U.S. citizen because he or she was born in the United States, but one or both of the parents are not citizens.[34] More than one of every 10 families with children in the United States is a mixed-status family. Children in these families are often eligible for the full range of benefits that all citizens enjoy, but their parents are often not eligible for some benefits depending on legal status and recency of immigration.

## Concentration of Kids in States With Bad Outcomes

The child population is growing rapidly in many states where child outcomes are among the worst in the country. Of the five states that experienced the largest increases in the number of children during the 1990s (California, Texas, Florida, Georgia, and New York), all but California (ranked 21st) were in the bottom one-half of states based on a comprehensive measure of child well-being, according to the 2003 *KIDS COUNT Data*

*Book*.[35] These five states account for almost one-half of the growth in the number of children between 1990 and 2000.

### Single-Parent Families and Poverty

The family is generally the most important social institution in determining a child's life chances. The dichotomy between married-couple and single-parent families, while relatively simplistic, provides a powerful set of categories for understanding child well-being. (According to the 2000 Census, 49 million children live in married-couple families and 19 million live in single-parent families.) While single-mother families constitute the vast majority of single-parent families (78 percent in 2000), the number of children living with single dads grew dramatically during the 1990s. And about 4 million children live with neither parent.

Much of the public interest in family structure is because children growing up in single-parent households typically do not have the same economic or human resources as those available to children growing up in two-parent families. Research shows that children in single-parent families have an increased risk for repeating grades, low academic marks, and low class standing; an increased likelihood of dropping out of high school; increased rates of early childbearing; and increased levels of depression, stress, anxiety, and aggression.[36] One recent study found that youths raised in fatherless families were much more likely to be incarcerated even after controlling for other factors such as poverty.[37]

When we talk about a particular family type, it is important to remember that we are talking about the average or typical child in a family, not all children. Many children growing up in single-parent families do fine, and many children growing up in married-couple families struggle. However, a growing body of research strongly suggests that children benefit when both parents, regardless of marital status, are active in those children's lives.[38]

Researchers typically point to three different reasons why child outcomes in married-couple families are generally better than those in single-parent families:

- Married-couples families have higher incomes than single-parent families.
- Children in married-couple families receive more time and attention from parents.
- Children in married-couple families experience childrearing skills of both the mother and father.

The economic disadvantage of growing up in a single-parent family is striking. Only 8 percent of children in married-couple households are living in poverty, compared with 37 percent of children in single-parent households. Single-parent families typically have only one adult earner; married-couple families often have two earners. Two-thirds of children living in married-couple households have more than one parent in the workforce. Moreover, in single-mother families—the vast majority of single-parent families—the sole earner is a female, and women typically earn less than men. In 2003, for example, a man who worked full-time/year-round earned $40,332 annually, but a woman who worked full-time/year-round earned only $30,895 annually.[39]

Perhaps even more important to children's well-being than the income differential between married-couple and single-parent families is the difference in assets or net worth. The overall figures are distorted by the large number of relatively well-off widows, but, looking only at young families (where the householder is under age 35), the median net worth of female-headed families is only $1,500, compared with $17,350 for married-couple families.[40] Assets provide a safety net for married-couple families and resources for investments such as the purchase of a home or a college education for a child.

The economic disadvantage of single-mother families is exacerbated because a large share of single-mother families either do not receive any child support payments or receive modest payments. Only 41 percent of custodial mothers and 23 percent of custodial fathers reported receiving any child support in 2002.[41] The average amount of child support due single mothers was $5,138; among those single mothers who received child support, the average amount received was only $3,192. (Many custodial parents are not legally due any child support from the noncustodial parent.)

Measures that assess the time and attention received by children show that children under age 13 who live in two-parent families receive about twice as much daily time from parents as children under age 13 who live in single-parent families.[42] Moreover, children living in married-couple families are more likely than children in single-parent families to benefit from an extended family network of kinship ties of both mother and father.

Some researchers argue that men and women bring different parenting styles to childrearing, and children benefit from both styles. These researchers assert that women are more apt to focus on nurturing, while men are more focused on teaching. For example, in discussing the importance of fathers, David Blankenhorn notes that a father provides his children "with what might be termed paternal cultural transmission: a father's distinctive capacity to contribute to the identity, character, and competences of his children."[43]

The percentage of children living in single-parent families increased from 25 percent in 1990 to 27 percent in 2000, indicating that more kids were living in families with fewer resources. Nonetheless, overall child well-being improved.

## Family Diversity

Recent changes in the American family have been the central topic of America's "culture wars." Some people

feel that the changes in American families over the past few decades portend the passing of the traditional family; others celebrate the emergence of new family types.[44] It has been widely recognized that household and family relationships have become more complex and complicated during the second half of the 20th century. For example, increases in divorce and remarriage, births to unmarried mothers, and cohabitation have increased the number of children living in households of a different form than what is often described as a traditional family household, with two married adults and their biological offspring.

In 2003, 23 percent of children lived with their mother only; 5 percent lived with their father only; and 4 percent lived with neither parent (see Box 3). And because of divorce and remarriage, the percentage of children affected by the end of a marriage is actually higher than the single-parent figures suggest. Many children currently residing in married-couple families are actually living with stepparents. The Census Bureau recently reported that only 56 percent of all U.S. children are living with both biological parents.[45]

# Why Did Child Well-Being Improve?

The improved well-being of children during the late 1990s is linked closely to increased resources (such as income) available to their parents.

## Parental Employment

The decrease in child poverty during the 1990s is linked to changes in parental work effort. Table 7 (page 214). shows changes in the distribution of children by work status of their parent(s) between 1990 and 2000.

*Box 3*

### Nontraditional Living Arrangements

Although the vast majority of children in the United States live with at least one of their parents, there were 3 million children (4 percent of all children under age 18) living with neither parent in 2003. This rate is much higher for some groups: For black children, 8 percent live with neither parent. In addition to the two situations discussed here—living with grandparents and living in foster homes—there are about 300,000 children who live in group quarters such as boarding schools and juvenile justice facilities.

#### Grandparents

The 2000 Census was the first census to ask if grandparents have responsibility for a grandchild, and for how long they have had that responsibility. In 2000, 4.4 million children, or 6 percent of the child population in the United States, lived with a grandparent who was the head of the household. About 2.4 million grandparents have been responsible for the basic needs of their grandchildren for at least five years.[1]

Grandparents often take responsibility for the care of a grandchild when a parent has severe emotional or mental health problems, or has a drug addiction. Other times, grandparents step in when a child has been abused or neglected, and the grandparent does not want the child put in foster care.[2] An estimated 1.5 million children have a parent in prison. Grandparents will help out, but many are ill-equipped to provide for their grandchildren. In 2000, 19 percent of grandparent caregivers had incomes below the poverty line.[3]

#### Foster Care

Census data show almost 300,000 children in foster care in 2000, but administrative records indicate more than 540,000 children in foster care in 2001.[4] Because foster children move often, and often have a tenuous relationship with the householder, the likelihood of undercounting foster children in a census is high.

These 540,000 children growing up in foster care are particularly important to include in any assessment of child well-being because of their extremely high dropout rates, high incidence of teen pregnancy, difficulty in finding and keeping jobs, and likelihood of drug abuse and criminal behavior.

The foster-care population is very vulnerable, and data from several studies paint a troubling picture of children who age out of foster care. These children are more likely to have been held back a grade, suspended, or expelled from school. At age 17, on average, these foster youth read at the 7th grade level. More than one-half of the teens aging out of foster care report at least one arrest.[5] Only 50 percent of these kids have a high school degree, compared with about 85 percent of all young people. By age 17, one-fourth of foster children have endured a spell of homelessness; four of 10 have become parents; and one of four males has spent time in jail.


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Changes in the 1990s reflect the continuation of a long-term shift in work norms. The share of children living in a traditional breadwinner-father/homemaker-mother family fell from 16 percent in 1990 to 15 percent in 2000, while the share of children living in married-couple families in which both spouses work full-time/year-round increased from 17 percent in 1990 to 19 percent in 2000. There was also a slight increase in the share of children living in married-couple families in which the mother worked full-time/year-round and the father did not work, but the number of children living in this type of family is small—about 800,000.

The breadwinner-father/homemaker-mother family is more an idealized type than a bygone reality. Even in 1960, at the height of the baby boom, less than one-half (47 percent) of all families could be characterized as breadwinner/homemaker families.[46]

The biggest work status changes during the 1990s occurred in single-parent families. There was a large increase in the share of children living with a single parent who was working, and there was a significant decrease in the share of children living with a single parent who did not work at all. The share of children living with single parents who were working full-time/year-round increased from 9.1 percent to 12.9 percent from 1990 to 2000. On the other hand, the share of children in single-parent families where the parent did not work fell from 7.3 percent in 1990 to 5.7 percent in 2000.

Increased employment was particularly significant among never-married single mothers, a group that makes up a large share of the welfare population. Between 1995 and 2000, the percent of never-married single mothers who were employed increased from 49 percent to 66 percent.[47]

The reasons for this significant increase in parental employment during the 1990s are debatable. Some researchers point to the very robust economy of the late 1990s as the major reason for the increase in employment among parents, because employers needed workers and opportunities for low-income parents expanded greatly. Others conclude that the welfare reform legislation passed in 1996 was the main factor behind the increase in parental employment during the 1990s, particularly for single parents. By eliminating guaranteed long-term government support for poor families with children, these researchers argue, welfare reform motivated single parents to move into the labor force.

## The Economic Expansion

There is widespread agreement that the improvements in child well-being during the late 1990s were linked to improvements in the employment situation of low-income families. And economic changes during the 1990s have also had some positive influence on low-income neighborhoods. Neighborhood changes are important because research shows that the quality of the neighborhood where a child lives can have a significant impact on that child's life chances (see Box 4). But there is more to this story.

*Table 7*

**PERCENT OF CHILDREN BY FAMILY STRUCTURE AND PARENTAL EMPLOYMENT, 1990 AND 2000**

| Family/employment | 1990 (%) | 2000 (%) |
|---|---|---|
| **Married-couple families** | 76.0 | 72.1 |
| Both parents work full-time/year-round | 17.1 | 19.2 |
| Father works full-time/year-round; mother works part-time/part-year | 22.9 | 19.6 |
| Father works full-time/year-round; mother doesn't work | 16.3 | 14.9 |
| Father works part-time/part-year; mother works full-time/year-round | 3.4 | 3.3 |
| Father works part-time/part-year; mother works part-time/part-year | 7.3 | 6.4 |
| Father works part-time/part-year; mother doesn't work | 5.0 | 4.5 |
| **Single-parent families** | 24.0 | 27.9 |
| Parent works full-time/year-round | 9.1 | 12.9 |
| Parent works part-time/part-year | 7.6 | 9.4 |
| Parent doesn't work | 7.3 | 5.7 |
| No resident parent works | 9.5 | 7.6 |
| All resident parents work | 67.4 | 70.6 |

Note: Year-round means the person worked at least 50 weeks the previous year. Full time means the person worked at least 35 hours per week. Only children living with at least one parent are included in data.

Source: Author's calculations using the 1% Public Use Microdata Sample (PUMS) from the 1990 and 2000 censuses.

The economic expansion of the late 1990s was probably a *necessary* condition for the improvement of child well-being, but further analysis shows that the expansion was not a *sufficient* condition. Changes in child well-being during the periods of economic growth during the late 1970s and late 1980s illustrate that good economic times don't automatically translate into improved outcomes for children.

Indeed, falling unemployment rates during the late 1970s and late 1980s did little to improve the well-being of children. For example, the unemployment rate fell from 8.5 percent in 1975 to 5.8 percent in 1979, but the Child Well-Being Index was essentially unchanged during this period. Likewise, the unemployment rate fell from 9.7 percent in 1982 to 5.3 percent in 1989, but the index actually decreased slightly during this period. On the other hand, as the unemployment rate fell from 7.5 percent in 1992 to 4 percent in 2000, the index increased by about 9 points.[48]

One could argue that the economic expansion of the last half of the 1990s was longer and deeper than those of the late 1970s and late 1980s, but that situation alone does not explain why the experience of the late 1990s is so qualitatively different than the experience of the late 1970s and late 1980s with regard to the connection between economic expansion and changes in child well-being. If the robust economy of the late 1990s does not fully explain why child outcomes improved, what does?

## Welfare Reform

One major event in the mid-1990s often linked to increased employment among single parents is the historic welfare reform legislation passed by Congress in 1996: the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). This legislation ended Aid to Families with Dependent Children (AFDC) and enacted Temporary Assistance for Needy Families (TANF). PRWORA also ended entitlement to welfare payments; required that recipients work; limited the time a family could remain on welfare; and gave states more control over how programs were structured by making the welfare program into a series of block grants. Under these block grant programs, states are given money and a great deal of flexibility to figure out how to best use the funds for a given purpose.

In terms of trends in child well-being, PRWORA was probably not as important as broader changes in how the government interacts with poor families. Many of the positive trends in child indicators started before the key provisions of PRWORA were implemented, and most of those provisions only applied to a small share of all American families. On the other hand, welfare reform did not have the disastrous impact some critics envisioned, such as contributing to a significant increase in child poverty.

Public policy changes during the 1990s signaled a major reorientation and change in emphasis of the relationship between government assistance programs and low-income families, and it is best to view PRWORA in this broader context. The emphasis during the 1990s was increasingly on supporting low-income workers.

*Box 4*

### Improving Neighborhoods

In addition to improving the economic conditions of individual families, the strong economy of the late 1990s also changed neighborhood environments for many children.[1] The neighborhood in which a child lives determines his or her choice of peers and playmates; the quality of schools; and the availability of amenities such as parks, playgrounds, and libraries. In addition, neighborhoods often determine the type of child-care services available, the level of personal safety, and the availability of jobs. The neighborhood has a major impact on the role models a child sees on a regular basis. Neighborhood norms can help launch a child toward college and a stable work life, or increase the likelihood that he or she will commit a crime or become a teenage parent.[2]

The number of children living in concentrated poverty neighborhoods (where the poverty rate was 40 percent or higher) fell by more than 25 percent between 1990 and 2000, or from 3.2 million to 2.3 million children (see table). It is not clear whether the number of high poverty tracts declined because poor families moved to less poor neighborhoods, or if a significant number of people in high poverty tracts moved out of poverty altogether. It is clear, however, that poor black and Hispanic children are more concentrated in high poverty neighborhoods than poor non-Hispanic white children.[3] About 20 percent of poor black children, and 14 percent of poor Hispanic children, lived in concentrated poverty neighborhoods in 2000, compared with about 2 percent of poor non-Hispanic white children.

The demolition of some public housing and the implementation of federal programs designed to disperse public housing residents also contributed to this deconcentration. But neighborhood change during the 1990s was not uniformly positive. For example, there was no change in the proportion of children living in census-designated poverty areas—where the poverty rate was 20 percent or higher.

**Children Living in High and Very High Poverty Neighborhoods, 1990 and 2000**

| | Population under age 18 (millions) | |
|---|---|---|
| Neighborhood poverty rate | 1990 | 2000 |
| Census-designated poverty area (20%+ in poverty) | 14.6 | 14.7 |
| Concentrated poverty (40%+ in poverty) | 3.2 | 2.3 |

Source: U.S. Census Bureau, 1990 and 2000 censuses.

Additionally, a more comprehensive measure of neighborhood quality did not show similar neighborhood improvements over the 1990s.[4] The percent of children living in distressed neighborhoods—identified as those with high levels of poverty, female-headed families, unemployed working-age men, and high school dropouts—increased from 5.3 percent in 1990 to 6.1 percent in 2000.


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The programmatic approach that emerged in the 1990s also recognizes that there are a significant number of working families in poverty or with incomes just above the poverty line who deserve assistance.

Total government spending on needy families did not change much during the last half of the 1990s, but there were significant shifts in where the funds were spent. Table 8 shows that overall government spending on benefits for low-income recipients rose only 4 percent between 1995 and 2000, in sharp contrast to the 48 percent increase seen in the first half of the 1990s. Between 1995 and 2000, there was actually an 11 percent decline in cash aid and a 21 percent decline in food benefits, reflecting the decreasing number of people in poverty or eligible for these programs. However, between 1995 and 2000, expenditures on education benefits increased by 12 percent; expenditures on jobs and job training increased by 20 percent; and expenditures for work support services increased by 62 percent.

Programs that aid working-poor families affect a large proportion of low-income children, because most parents in poor or low-income families are working and the share of poor children living in working-poor families is increasing. Between 1976 and 2001, the number of poor children living in families totally dependent on welfare fell from 3 million to just under 1 million, while the number of poor children living in families with income from earnings and none from public assistance increased from 4 million in 1976 to 7 million in 2001.[49]

Three of the most important programmatic trends during the 1990s that brought increased support for low-income working families were:

- Expansion of the Earned Income Tax Credit (EITC);
- A new health insurance program for low-income children (SCHIP); and
- Growth in government child-care subsidies.

## Earned Income Tax Credit

The Earned Income Tax Credit (EITC) is a federal program that allows low-earning workers to enhance their income. EITC targets low-income families with children and with at least one working parent. EITC has enjoyed strong bipartisan support since it was first enacted in 1975 to blunt the effect of payroll taxes on low-income working families. The credit is generally available to families with incomes below 200 percent of the poverty line, or about $35,000 a year for a family of four. In 2003, the average EITC recipient received $1,784.

The importance of the EITC program can be seen by looking at federal government outlays, which show that the credit now provides twice as much cash income to low-income families as does the major cash welfare program, Temporary Assistance for Needy Families (TANF). In 2002, EITC outlays were $28 billion, compared with $13 billion for TANF. Some states also provide funds for state EITC programs, and all states contribute to TANF. As of mid-2004, 18 states have enacted a state EITC, and many others are considering one. State EITC programs give low-income working families with children an additional income boost because the families get a break on paying state taxes. But even with the state contributions, low-income families receive far more cash through EITC than through TANF.

Since EITC was expanded in 1993, the number of recipient families increased by 25 percent, while the average amount received per recipient family grew by more than 50 percent.[50] The EITC has lifted as many as 2.5 million children above the poverty line each year (but not officially, because EITC is part of the tax system and taxes are not included when measuring poverty). EITC has also increased the family income for millions of other families.[51] While changes in family income due to EITC may seem small, studies show that,

*Table 8*

**GOVERNMENT EXPENDITURES ON BENEFITS FOR LOW-INCOME RECIPIENTS, 1990, 1995, AND 2000**

| | 1990 (millions) | 1995 (millions) | 2000 (millions) | % change 1990–1995 | % change 1995–2000 |
|---|---|---|---|---|---|
| **Total benefits*** | $282,815 | $418,484 | $436,985 | 48 | 4 |
| Medical | 115,250 | 196,922 | 225,858 | 71 | 15 |
| Cash aid | 72,019 | 103,291 | 91,703 | 43 | -11 |
| Food | 33,326 | 43,558 | 34,347 | 31 | -21 |
| Housing | 23,926 | 35,764 | 34,906 | 49 | -2 |
| Education | 19,102 | 18,146 | 20,385 | -5 | 12 |
| Jobs/training | 5,631 | 6,132 | 7,347 | 9 | 20 |
| Services** | 11,267 | 12,775 | 20,724 | 13 | 62 |
| Energy aid | 2,294 | 1,896 | 1,715 | -17 | -9 |

* Total benefits are in constant 2000 dollars.

** Includes Title XX Social Services; child care for TANF recipients/ex-recipients; Child Care and Development Block Grant services; and TANF services.

Source: U.S. Census Bureau, *Statistical Abstract of the United States* (2003): table 539.

among low-income families, even small increases in income can lead to better child outcomes.[52]

## State Children's Health Insurance Program

Data for 2003 show that about 11 percent of all children lack health insurance, and 19 percent of all poor children lack health insurance.[53] However, this measure includes only those children who lacked health insurance for the entire year. More than 37 percent of all children lacked health insurance for some period during 2002 and 2003.[54]

In response to growing concerns about lack of health care coverage in the 1990s—and spurred by President Bill Clinton's effort to enact comprehensive health insurance legislation—Congress passed the State Children's Health Insurance Program (SCHIP) in 1997 to help states provide health care coverage for children in low-income families. States can establish their own income cutoffs for eligibility, within certain boundaries. By 2001, almost 5 million children had been enrolled in the SCHIP program.[55]

SCHIP helped sever the link between welfare and health insurance for poor families by allowing low-income parents to obtain health care for their children while they continue to work. SCHIP eases the transition from welfare to work for these low-income parents, who typically find jobs that do not offer health insurance.

## Child-Care Subsidies

The majority of children live in households in which all resident parents work (see Table 7, page 214).

A critical barrier for low-income parents trying to move into the workforce or wanting to expand the number of hours they work is the high cost and difficulty of finding appropriate child care; the odd and constantly changing work schedules faced by these low-wage workers make child care even harder to find. About two-fifths of employed Americans now work during nonstandard times.[56] Blue-collar and pink-collar jobs are the most likely jobs to require nonstandard work hours.

Data from the National Survey of American Families show that about one-half of all working families with children under age 13 pay at least some child care expenses, averaging $286 a month, or about 9 percent of earnings.[57] For low-income working parents, child-care costs consume an enormous portion of their budget. Census Bureau data show that, among low-income families with employed mothers (incomes less than $1,500 a month), child-care costs consume more than 25 percent of their income.[58]

As growing numbers of low-income parents, especially single mothers, moved into the workforce during the late 1990s (and many of these women moved from welfare to work), their need for child care grew dramatically. In the last half of the 1990s, federal and state child-care subsidies for low-income working families nearly tripled, in part because PRWORA allowed states to use TANF dollars for child care. In 2003, $2 billion in TANF money went into child care.

Federal and state government child-care funding increased from $3 billion in 1995 to almost $8 billion in 2001. States and localities, as well as some private-sector companies, also helped many low-income working families find affordable child care. Unlike the EITC and SCHIP programs, however, child-care assistance provided by the government involves several programs and includes direct subsidies as well as tax credits.

The Child Care Development Fund is the chief form of direct federal child-care assistance. Income limits for participation in this program are determined by states, but the income limit in most states is less than 200 percent of poverty. Child-care support is not an entitlement, and many eligible families do not receive child-care subsidies because support funds are limited. About one-half of states have waiting lists, and more than 500,000 children were on the waiting lists in 2003.[59] While there were still many eligible low-income workers who did not receive a child-care subsidy, the expansion of this support system undoubtedly helped low-income families.

Additional help for low-income parents is provided through the federal tax code. The Child and Dependent Care Credit is a tax credit which provides another $3 billion, but only about one-quarter of this benefit goes to low-income families for partial reimbursement of child-care costs.

EITC is part of the tax system, while child-care subsidies and public health insurance are noncash benefits. Therefore, these benefits are not considered as income in determining poverty status for families. Since official poverty status is based only on cash income, the expansion of EITC, child-care subsidies, and public health insurance is not reflected in the official poverty figures. However, analysts show that this expansion has significantly improved the standard of living for millions of Americans during the 1990s.[60]

## Expanded Support

Expanded support for low-income working families during the 1990s helped struggling parents fulfill their work obligations and their responsibilities at home. While the mechanisms that translate higher incomes into better outcomes for children are not always clear, the connection between family economic status and outcomes for children is indisputable. On virtually every measure of child well-being, children from families with more resources do better than children living in families with fewer resources. Consequently, it is reasonable to expect that providing more resources for low-income working families will improve outcomes for children in those families.

Moreover, since negative outcomes for children are concentrated in the low-income population (see Table 9,

*Table 9*

**CONCENTRATION OF NEGATIVE CHILD OUTCOMES IN LOW-INCOME FAMILIES, 2002**

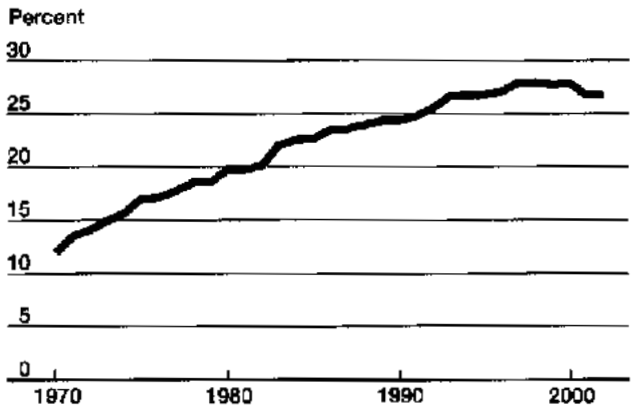
| Negative child outcome | Percent in low-income families (less than 200% of poverty) |
|---|---|
| 1. Children living in single-parent families | 66 |
| 2. Children living in families where no parent works full-time/year-round | 68 |
| 3. Children living with a household head who is a high school dropout | 72 |
| 4. Children living in households without a telephone | 84 |
| 5. Children living in households without a vehicle | 84 |
| 6. Children who have difficulty speaking English (ages 5–17) | 66 |
| 7. Teens who are high school dropouts (ages 16–19) | 64 |
| 8. Teens not attending school and not working (ages 16–19) | 64 |

Note: For outcomes 1–6, data are for related children only; also, persons under age 18 who are a householder, spouse, or unmarried partner are not included. For outcomes 7–8, all persons ages 16–19 are included.

Source: Author's calculations using the 2002 American Community Survey Public Use Microdata Sample (PUMS).

*Figure 2*

**CHILDREN LIVING IN SINGLE-PARENT FAMILIES, 1970–2002**




Source: U.S. Census Bureau (www.census/gov/population/ socdemo/hh-fam/tabCH-1.xls, accessed Oct. 28, 2004).

page 218), reducing the number of children living in low-income families will likely have a disproportionately positive effect on overall child well-being. For example, almost two-thirds of high school dropouts come from low-income families; more than 80 percent of children with no phone at home or no vehicle at home come from low-income families; and teens growing up in poverty are more likely to become pregnant than are teens from other income groups.

Given the expansion of programs to help low-income working families, it is not surprising that the well-being of children in low-income families improved during the 1990s. By some measures, the biggest improvements in child well-being during the 1990s were in low-income families. One major reason for the overall improvements in child well-being during the last half of the 1990s is better outcomes for children in low-income families.

## Declining Share of Children in Single-Parent Families

For some groups, the share of children in single-parent families has shown a significant decline since the mid-1990s. For example, the percent of black children living in single-parent families fell from 58 percent in 1991 to 53 percent in 2002. Among Hispanics, the share of children in single-parent families declined from 33 percent in 1995 to 29 percent in 2001. These beneficial trends in family structure occurred most often in low-income populations, suggesting that the trends are tied to expanded economic opportunity and support for low-income populations in the 1990s.[61]

In 2002, the share of children living in single-parent families was still below what it was in 1996, and this share is well below where it would have been if it had followed the trajectory of the early 1990s (see Figure 2). If the pace of change seen between 1990 and 1996 had continued for another six years, 31 percent of children would have been living in single-parent families in 2002, instead of the 27 percent observed in 2002.

Because the share of children in married-couple families stabilized during the mid-1990s, the impact of the booming economy and low-income family support programs of the late 1990s was not undermined by growing numbers of children in difficult family situations.

Sadly, Americans still fail to acknowledge the decrease in the number of children in single-parent families, a perception reflected in a poll taken in 2002. This poll found that 76 percent of adults believed that the percentage of children living in single-mother families had *increased* over the last five years.[62]

## Decline in Teen Childbearing

Recent changes in the teen birth rate have resulted in fewer children living in single-parent families. Almost four of every five teen births (79 percent) are out-of-wedlock births. A recent report from the National Center for Health Statistics showed a 26 percent decline in the teen birth rate between 1991 and 2001.[63] One analy-

sis indicates that this decline explains 26 percent of the reduction in child poverty in the 1990s.[64]

The increased risk for a child born to a teen mother can be illustrated by the following stark comparison. The poverty rate for children born to teenage mothers who never married and who did not graduate from high school is 78 percent. Conversely, the poverty rate for children born to women over age 20 who were married and did graduate from high school is 9 percent. Fortunately, relatively few children are born to teen mothers who have not completed high school and are not married.

The teen birth rate declined between 1991 and 2001 in every major racial and ethnic group and in every state, and teen pregnancy rates and teen abortion rates have been falling as well.[65] Teen birth rates have been falling for two simple reasons: Fewer teens are having sex, and more teens who do have sex are using contraception. The Youth Risk Behavior Surveillance System found that 46 percent of the nation's high school students reported having ever had sex in 2001, compared with 54 percent in 1991.[66]

# Post-2000 Trends

Since the economy peaked in April 2000, there have been troubling signs that the momentum established in the late 1990s regarding improved child well-being may be dissipating. Most of the measures of child well-being available in 2004 reflect experiences through 2003 only, so it is likely that the current child well-being measures do not reflect the full impact of the prolonged post-2000 economic slump.

The Child Well-Being Index shows that the rate of improvement in overall child well-being slowed significantly between 2000 and 2002, but the rate still moved in a positive direction. The average gain of 1.6 points per year between 1995 and 2000 fell to an average gain of 0.8 points per year between 2000 and 2002.

In contrast to the large positive changes in child outcomes between 1995 and 2000, the evidence since 2000 for individual measures of child well-being is mixed. For example, the child poverty rate fell steadily between 1993 and 2000, but both the Current Population Survey (CPS) and the American Community Survey (ACS) show that child poverty rates increased between 2000 and 2003. The ACS data for state-level child poverty rates from 2000 to 2003 show that child poverty increased in 32 states, although the increase was statistically significant in only eight states plus the District of Columbia.

Despite the significant gains made in the late 1990s, the poverty rate for children was a little over 17 percent in 2003: More than one of every six children is growing up in poverty in the United States—a much higher child poverty rate than any other developed country and a sad situation for the wealthiest country in the world.

## A Jobless Economic Recovery

Post-2000 economic performance has been dismal, as the 2001 recession gave way to a "jobless" recovery. The unemployment rate rose from 3.8 percent in April 2000 to 6.0 percent in April 2003; the rate then fell slightly to 5.6 percent in June 2004.[67] Real mean household income fell by 3 percent (or by $2,000) between 2000 and 2003.[68]

The recent economic slump has hit some of the most vulnerable families the hardest. Between 1995 and 2000, the percent of never-married single mothers who were employed increased by an incredible 17 percentage points (from 49 percent to 66 percent); but between 2000 and 2003, the figure fell by 4 percentage points, to 62 percent.[69]

One of the key stories of the post-2000 economy is that jobs with good benefits are being replaced by jobs without such benefits. Manufacturing and production jobs, for which median weekly earnings are $522, are being replaced by service jobs, for which median weekly earnings are $410. New jobs pay less and have fewer benefits. In 2002, only 46 percent of working parents in poverty had any paid leave (including sick leave), while 84 percent of parents above 200 percent of poverty had paid leave.[70]

## Cutbacks in Government Support

There are also signs that the fiscal stress experienced by federal and state governments since 2000 has led to cutbacks in support programs. To appreciate trends in social support programs, it is important to understand the changing federal and state budget situations. The $200 billion annual federal budget surplus in 2000 has turned into a more than $400 billion deficit in 2004. And equally important, the post-2000 era has ushered in the largest fiscal crisis in decades for many states. To close the gap between revenues and expenditures, many states have cut spending. For example, child-care subsidies have been cut in 21 states since 2000.

Moreover, looking ahead 10 years, the situation will likely become much worse. If current trends continue, experts predict that the entire federal budget will be consumed by military spending, Social Security and Medicare, and interest on the national debt, leaving no funds for discretionary programs that support children and families.

While the EITC has enjoyed strong bipartisan support for many years, nagging questions about the level of erroneous payments have led the Bush administration to consider new EITC rules. Currently, families ask for the EITC benefits when they file their regular income tax forms. If audited by the IRS, an EITC recipient must provide documentation, as must anyone going through an IRS audit. However, proposed new "precertification" rules would require EITC families to provide much more documentation *before* they can receive the benefit.

Requiring more documentation will most likely lower participation rates among eligible families.[71]

Since 2000, there has been a steady erosion in the number of children who typically gain health insurance through an employed parent. The proportion of children covered by employer-based health insurance fell from 66 percent in 2000 to 61 percent in 2003.[72] The share of children in low-income families with employer-sponsored health insurance went from 39 percent in 1999 to 32 percent in 2002. Nonetheless, the share of all children with health insurance stayed relatively constant over this period because children covered by government health insurance increased dramatically. The expansion of public-sector insurance through SCHIP helps lessen the impact of private-sector health insurance cutbacks. But even SCHIP enrollment has inched downward; a lower enrollment in December 2003 than in June 2003 was the first decline in SCHIP enrollment since the program began in 1997.[73] Budget cuts adopted in 34 states will cause about 1.5 million low-income people to lose health insurance, and 21 states have new or higher copayments for public health insurance.[74]

After many years of steady decline, TANF caseloads are now increasing in many states. From September 2002 to September 2003, TANF caseloads increased in 30 states and the national caseload increased by 0.4 percent.[75] As the welfare caseload declined during the late 1990s, there was a debate about the relative contributions to this decline of the good economy and the new welfare law. Since the welfare rules have not changed since 1996, the post-2000 leveling off of TANF caseloads suggests that the good economic times of the late 1990s were a necessary condition for caseload declines. The slight uptick in TANF caseloads is also a sign of the difficulty that low-income workers have in getting and holding jobs, but the increase in caseloads is also a sign that those welfare recipients still on the rolls have the hardest time finding jobs.

TANF was up for reauthorization in 2002, but Congress thus far has not been able to come to agreement on some key welfare issues, such as increasing work requirements among TANF recipients.

## Will the Improvements Erode?

Examining the trends in the well-being of U.S. children in the 1990s helps dispel two common misperceptions: that children are enduring worsening conditions, and that government programs to help the needy either don't work or don't work well. The evidence presented in this report shows both perceptions to be incorrect. There were widespread improvements in the lives of children during the late 1990s (particularly for children in low-income working families), and much of the credit goes to the implementation and expansion of government programs.

Moreover, the overall improvements during the 1990s were led by improved outcomes for black and Hispanic children. This report shows that America can improve the lives of its children even while minority children are becoming a growing percentage of the U.S. population.

Although many post-2000 trends are troubling, overall child well-being continues to improve, but at a slower pace than in the late 1990s. Some government programs to help needy families and children are under pressure, largely because of budget constraints. The next few years will be critical in determining if the improvements in child well-being during the late 1990s begin to erode.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# The Lives and Times of the Baby Boomers

*By Mary Elizabeth Hughes and Angela M. O'Rand*

## Introduction

In the late 1940s, after several decades of declining births, the United States experienced a surprising and dramatic increase in fertility rates. Even more surprising, high birth rates continued until the mid-1960s, after which they dropped sharply. The large number of births in these years, combined with lower numbers immediately before and after, produced a birth cohort substantially larger than the preceding and subsequent cohorts—what we now know as the baby boom.

The first thing that comes to the minds of most Americans when the baby boom is mentioned is its sheer size. As the boomers moved through childhood, young adulthood, and into midlife, the education, labor, and housing markets were forced to adapt to larger numbers. More recently, attention has been directed to the potential impact of aging boomers on the economy, the health care system, and social programs for the elderly.

However, the baby boom is more than exceptionally large, it is *pivotal*. The boomers inherited, encountered, and redirected social change. Members were born into a nation already transformed by four long years of world war. As their lives unfolded, they experienced the profound changes that marked the decades between World War II and the 21st century, such as the Civil Rights Movement and the shift to a service economy. For the most part, the boomers did not initiate these changes. But since they encountered these shifting social contexts in young adulthood, their lives were disproportionately affected. The choices the boomers made about education, work, and family then reinforced some existing trends and set other trends in motion. The boomers are pivotal because they responded to historical change by living in new ways that set patterns for succeeding cohorts.

The lives of the boomers thus embody the post-World War II transformation of American society. At midlife, their experiences show some continuity with those of people born earlier in the 20th century. More noticeable, however, are the ways in which their lives differ from and have been less predictable than the lives of their counterparts in earlier cohorts. Consequently, boomer experiences are not just different from those of their predecessors; their experiences are different from each other's. Due in part to the heterogeneity of their lives, members of the baby boom are highly unequal in achievements and economic attainments.

This report is about the lives and times of the baby boomers. We use Census 2000 to describe them at midlife, linking their current circumstances to their life histories. Using other census sources, we compare them to members of cohorts born earlier in the 20th century. We conclude by looking ahead, offering a set of stylized expectations for the boomers' future.

## Lives in History

If you ask three people to tell their life stories, you will hear three very different tales. Each story will have its own location, characters, and plot, reflecting the distinct circumstances and viewpoints of that person. But you will also hear the same topics and themes echoing through the stories. Each person will probably tell you where he or she grew up and talk about his or her family. They will all tell you about their educations, what they have done for a living, whether they married and had children, and how they have fared financially. If you listen closely, you will hear how these parts intertwined over time and how the whole played out against a backdrop of what was considered possible, appropriate, and important.

The emergence of common topics and themes in otherwise distinct biographies reflects these individuals' shared participation in society. Individual lives are unique, rich, and complex. However, as social beings, we are not simply idiosyncratic products of our own desires and imaginations. Our biographies are trajectories of socially defined roles enacted in contexts that present both opportunities and constraints.[1]

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ANGELA M. O'RAND is a War Baby born four months ahead of the baby boom. She is a professor of sociology at Duke University. Her research is concerned with patterns of stratification across the life course, with a special focus on socioeconomic outcomes such as earnings and pension wealth. She's been married to Mike O'Rand since 1967 and her 31-year-old son Chris is a lawyer in Miami. And, yes, she has a grandson, Dylan.

As they tell their stories, the three people will probably compare their lives and times to those of their parents and grandparents and perhaps of their children. They will reflect on how times have changed and how this has made their lives different from the lives of earlier or later generations. One person might note how World War II shaped his life because he served in the Army and subsequently went to school on the G.I. Bill. Another might observe that she would have liked to continue working after her children were born but that this simply wasn't done in her day.

Comparing lives and times is one of the ways we all make sense of social change. Social scientists usually make these comparisons using birth cohorts. A *birth cohort* is a group of people born in the same year or set of years. Members of a birth cohort move through life together, encountering at the same ages the same historical events and forces. The accumulated experience of a particular cohort thus reflects the intersection of lives and history. Historical change alters the social context in which people make choices; so as history unfolds, lives change. At the same time, people's responses to historical change can redirect or even create change, so history reflects people's experiences. A particular cohort will be unique in some ways because cohort members experienced history differently than people born earlier or later. Events in early adulthood are usually considered especially important to the way a cohort develops. But cohort members can also be affected by events later in their lives (see Box 1).

Historical events, changes in social institutions such as the economy, and shifts in cultural ideas are what social scientists call *structural change*. People usually find themselves in the midst of these types of changes, which alter the context in which they have to live their lives. Comparing cohorts is one way of observing such structural changes. But by comparing cohorts, we can also observe how people react to structural change in their day-to-day lives. These *behavioral changes* are also a form

*Box 1*

## Age, Period, or Cohort?

Social scientists use the concepts of age, period, and cohort to analyze the relationship between individual lives and social change.

*Age* reflects biographical time and individual physiological and social development. A person's chronological age corresponds, at least loosely, with his or her social status and roles. For example, young people are often in school, while middle-aged people are in the labor force. However, many scholars argue that the links between chronological age and social age are weakening. For example, recent research shows that many middle-aged people return to school.[1]

*Period* refers to historical time. Historical time includes the major events or changes that define a particular slice of history, such as the Great Depression, the Vietnam War, technological innovations, public policy adjustments, and shifts in attitudes. Period conditions set the opportunities and constraints that individuals encounter as they age.

The term *cohort* refers to a group of people who experience a particular event at a specific time. The baby boom is a birth cohort, a group of people who are born in the same year or, in the case of the boomers, the same group of years. Members of a birth cohort grow up together, grow old together, and experience particular historical events at similar ages. Birth cohorts are often referred to as "generations." However, social scientists typically reserve the term *generation* to distinguish stages within a family lineage.[2]

Tradition argues that a cohort's experiences in childhood and young adulthood leave a permanent imprint on the behaviors, values, and beliefs of that cohort.[3] Thus, particular cohorts think and act in particular ways and any observed differences between cohorts are due to these cohort effects. Because this argument is intuitively appealing, it is widely embraced. In fact, it has entered popular consciousness and is the basis for many popular images of the baby boom.

However, the expectation of cohort effects rests on three assumptions:[4]

- Individuals are particularly impressionable early in the life course. Research on human development shows that this is the most solid of the three assumptions.
- These youthful impressions are lasting; individuals do not change their behavior and beliefs in response to shifts in political, economic, or social context. This assumption has less support; although some core personal characteristics are set early in life, people also adapt their behaviors and attitudes in response to period conditions.
- All cohort members experience the same early events and in the same ways. However, an enormous body of sociological research has shown that race/ethnicity, gender, and social class stratify life experiences.

These complexities suggest that superficial generalizations about the baby boom based on the idea of shared experience are unwise.

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of social change—changes in what people do, such as going on to college or marrying late. Large-scale changes in behavior create new ways of living and new ideas about how to live.

Since World War II, the United States has undergone profound social change. In this report we describe the role of the baby-boom cohorts in the transformation of American society. We show that the boomers both inherited changes from the past and directly experienced extensive structural change. As they adjusted and adapted to these changes, they created new ways of living. Reviewing the lives and times of the boomers helps to make sense of our new American society and our new American lives.

## Six 20th-Century Cohorts

The baby boom was unexpected. On the eve of World War II, births were at an all-time low in the United States. In fact, some demographers were concerned that they were far too low and warned about population decline. No one would have predicted that 10 years later the United States would be in the midst of a baby boom, much less that the boom would continue unabated for nearly 20 years (see Box 2).

The baby boom began with a sharp increase in the number of births between 1945 and 1946, as couples "made up" for births postponed during the war (see Figure 1). Births continued to climb and reached a peak in 1957, when 4 million babies were born, compared with just 2 million in 1937. The baby boom ended in 1964 just as dramatically as it began.

*Box 2*

### U.S. Census Bureau Defines Baby Boom

**Since the U.S. baby boom was caused by a surge in the annual number of births, the U.S. Census Bureau defines the baby boom by a set of criteria identifying the beginning and end of this surge. Thus 1946 and 1964 were both watersheds in the fertility history of the United States.**

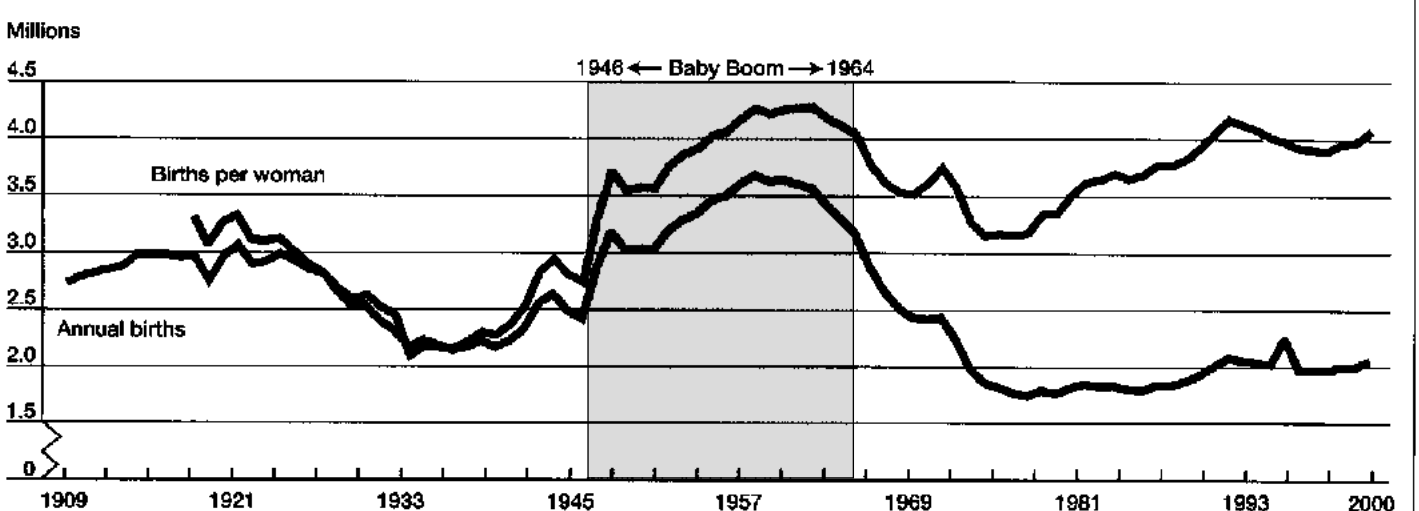
**Between 1945 and 1946, the United States recorded the largest one-year increase in births in its history; 1946 was also the first year since the beginning of the Great Depression that the crude birth rate topped 23 per 1,000 births and the first year in which the number of births reached 3 million.**

**The year 1964 was the last year in a series of years in which the number of births exceeded 4 million; it was also the last time that the general fertility rate was more than 100 births per 1,000 women, and the total fertility rate more than three births per woman.**

The demographic causes of the baby boom are well understood. From the end of World War II through the early 1960s, couples married earlier and started families more quickly than their counterparts in the 1920s and 1930s. During the 1950s, the average age at which men and women married and the fraction of people who never married dipped to historic lows. Once married, couples had a first child relatively quickly, pushing the

*Figure 1*

### Annual Births and Births per Woman, United States, 1909–2000




Note: Births per woman, also known as the total fertility rate, is the average number of children born per woman given current birth rates.

Sources: U.S. Center for Health Statistics, *Vital Statistics of the United States*, various volumes; *National Vital Statistics Reports* 51:12; and R. Heuser, *Fertility Rates by Color, United States*, 1917-1973 (1976).

*Table 1*
**SIX 20TH-CENTURY AMERICAN COHORTS**

| Cohort | Birth years | Census year when ages 44–53* |
|---|---|---|
| Young Progressives | 1906–1915 | 1960 |
| Jazz Age Babies | 1916–1925 | 1970 |
| Depression Kids | 1926–1935 | 1980 |
| War Babies | 1936–1945 | 1990 |
| Early Boomers | 1946–1955 | 2000 |
| Late Boomers** | 1956–1964 | 2010 |

* Age is as of year prior to the census. Because the census is taken on April 1, most people will not have had their birthday by census day.

** Most of the data presented in this report for late boomers are from the 2000 Census, when this cohort was ages 35–43.

average age at which women had their first birth lower as well. In contrast to the 1930s, nearly all couples went on to have a second child. These behavioral shifts were pervasive and visible across all races and social classes. In fact, most developed nations experienced similar, if shorter, postwar baby booms.[2]

Members of the baby boom were born over the course of 19 years; the last boomers were born as the earliest boomers were reaching adulthood. This means that even within the baby boom, individuals experienced history differently. For example, boomers are often associated with the Vietnam War protests of the late 1960s. However, only the boomers born earliest were involved in those protests; boomers born after the midpoint of the baby boom in 1955 were not in high school yet, and some were still in preschool. Similarly, people born in the first half of the baby boom entered a labor market with a shortage of workers in some expanding sectors; people born later in the boom entered a labor market crowded by their older brothers and sisters.

Because members of the baby boom did not experience history in the same ways, we divide the baby boom into two cohorts: the early boomers, born between 1946 and 1955; and late boomers, born between 1956 and 1964. The early boomers were ages 44 to 53 at the time of the 2000 Census, while the late boomers were ages 35 to 43.

To gain a longer-term historical and social perspective, we compare the early and late boomers to four 10-year birth cohorts from earlier in the 20th century. These cohorts are identified in Table 1, along with the census year in which they were ages 44 to 53.

## Cohorts in History

Each of the six cohorts has lived through its own particular segment of U.S. history. The segments overlap because the earlier cohorts were still alive when the later ones were born. But each cohort experienced events and trends in a particular way. For example, during the Great Depression, the Young Progressives were young adults, the Jazz Age Babies were teenagers, and the Depression Kids were babies. Cohorts born later encountered the Depression only secondhand, through history books and the stories of their parents and grandparents.

The boomers' fate was to come of age in a time of great social transformation. Structural change accelerated in the United States after the Second World War, especially during and after the 1960s. As these forces combined with long-term secular changes already in place, society changed at a dizzying pace.

First, the United States underwent a series of economic shifts and shocks. The United States emerged from World War II as a dominant economic power with an expanding industrial base. In the 20 years after the war, the U.S. economy grew rapidly, incomes rose, and millions of Americans made their way into the middle class. Members of the baby boom were born during these prosperous times. However, a series of structural changes began around the time the early boomers entered the labor market. These forces transformed the United States into a largely service and information-based economy enmeshed in increasingly competitive globalized markets. This process extended over three decades, encompassing more than half of the boomers' working lives.

As the baby boomers entered the workplace, large-industry employers began seeking cheaper labor markets outside of the highly unionized North and Midwest. Unskilled and semiskilled workers in the inner cities were left behind, resulting in reduced wages and growing unemployment. These conditions sparked riots across large cities in the late 1960s and early 1970s. An even bigger jolt came with the 1973 oil crisis, which ushered in a new era of painful economic adjustment and readjustment.

Technological innovations in manufacturing, communications, health services, and other sectors created markets without boundaries. The international division of labor continuously moved domestic jobs offshore to cheaper labor markets. Rapidly expanding computer-supported communications networks facilitated this new division of labor and created a new area of job growth that required higher technical skills. High-end and low-end service jobs became the new dominant sectors of employment. Professional and technical jobs grew in research and development, health care delivery, and business services, while positions expanded in the seemingly ever-growing discount retail sector and in personal services such as day care and home care. The era culminated in the dot-com revolution, economic boom, and technology bubble of the mid-1990s.[3]

Second, the role of the government in the redistribution of resources, the provision of welfare support, and the extension of legal protections underwent equally dramatic shifts after World War II. While the boomers were growing up, public resources poured into building

schools, highways, hospitals, and houses. Growing prosperity and the legacy of the New Deal appeared compatible. By the beginning of the 1960s, the discovery of larger-than-expected poverty led to enactment of policies for a wider sharing of this prosperity. Extensions of the 1935 Social Security Act such as early, reduced retirement benefits; Medicare; and Aid to Families with Dependent Children were followed in the early 1970s by cost-of-living adjustments and the Supplemental Security Income program for the elderly.

The Great Society of the Kennedy-Johnson era also sought to extend the protection of the law and the opportunities of democracy to African Americans. Black boomers were born under de jure Jim Crow segregation in the South and de facto Jim Crow segregation in the North. These restrictive policies and practices were challenged by the Civil Rights Movement in the 1950s and 1960s, resulting in laws aimed at redressing racial inequalities, including the Civil Rights Act and the Open Housing Act.[4] Although America has yet to achieve full racial equality, these changes profoundly altered life for black and white Americans. The boomers were the first to reach adulthood in the post-civil rights era.

But ideology reversed in the 1970s. The jolt of the oil crisis and the growing threat of global competitiveness shifted policies in the direction of fewer regulations for industry and retrenchment of welfare programs. The remaining decades of the 20th century would bring increased privatization of former public services, growing retreat of employers from occupational benefits such as pensions and health insurance, and programs moving welfare recipients to work. As they reached adulthood, the boomers experienced weaker social safety nets as risk was increasingly borne by individuals.

Third, a major change in U.S. immigration policy opened the doors to millions of newcomers. Prior to 1965, immigration law in the United States kept people from some countries out entirely and subjected others to

*Box 3*

## Boomer Beginnings: Race, Ethnicity, Nativity

The baby-boom cohorts are more racially and ethnically diverse than previous cohorts, and the late boomers are substantially more diverse than the early boomers. A full 30 percent of the late-boomer cohort is composed of minority groups.

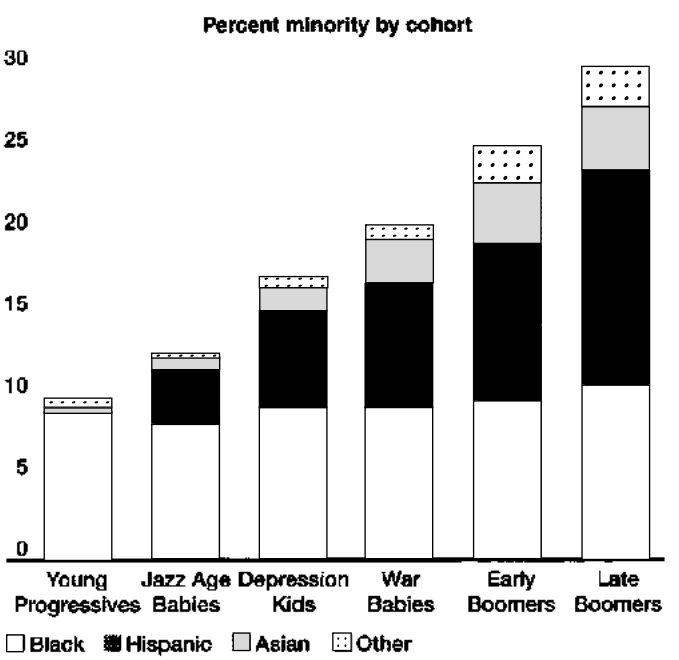
The percentage of blacks increased very little across cohorts. Increases in the percentage of "others" have been proportionately, if not absolutely, large. This growth can be traced to two factors. The likelihood that people of American Indian heritage will identify themselves as such on the census has increased over time. American Indians are the largest component of the "other" category for every cohort prior to the boomers. The large increase in the "other" category among the boomer cohorts is because Census 2000 was the first census to allow people to identify themselves as members of more than one racial or ethnic group. Most of the growth across cohorts in the minority population is due to increases in the Hispanic and Asian groups. A great deal of this growth is due to immigration; high percentages of Asians and Hispanics in both boomer cohorts are foreign-born (57 percent and 86 percent, respectively, for both cohorts). In fact, the percentage of immigrants of all ethnicities is quite high in the boomer cohorts in 2000: 12 percent among early boomers and nearly 15 percent among late boomers.

The above statistics reflect increasing yearly immigration and the fact that immigrants are usually between the ages of 20 and 50. Thus in the past 30 years, the baby-boom cohorts have been in the prime "receiving years" for immigrants.

The figure makes plain that the boomer cohort is not the only cohort inflated by immigration. The impact on the boomers has been the most spectacular among the cohorts we observe because of the historical timing of migration increases and the age pattern of migration. In this respect, the boomers are again pivotal—the impact of immigration on future cohorts may be even more pronounced.

To varying degrees, immigrants have shared boomers' history. Half of early-boomer immigrants have been in the United States over 20 years. When they were 10 years younger, about a quarter had been in the United States this long, about the same proportion among late boomers now.

Despite considerable progress in expanding opportunities to all subgroups of the population, race and ethnicity persist as major bases for inequality. Race and ethnicity also shape individual ideas about what is normal, appropriate, and important. Clearly, in the boomer cohorts, nativity is an additional basis for stratification.




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Box 4*

## Images of the Baby Boom

The image of the boomers that has emerged in recent media coverage is quite colorful and has several consistent themes. In drawing this conclusion, we conducted two random samples of articles published in major U.S. newspapers that contained references to the baby boom in the headline or lead paragraphs: articles published between June 1993 and June 2003; and articles published between December 2002 and June 2003.

**Homogeneity.** The most striking feature of recent commentary on baby boomers is the extent to which they are viewed as a homogeneous group. Nearly all commentary refers to them as an undifferentiated whole, lacking within-cohort differences.

**Shared History.** Members are assumed to share similar upbringings and a common set of cultural references. For example, boomers are often characterized as products of affluent, suburban childhoods; events such as the Vietnam War or Woodstock are considered pivotal in the lives of all boomers. Following from the assumption of shared experience is an image of boomers as a cohesive generation with a collective set of core values and beliefs.

**Well Educated.** Boomers are frequently referred to as the best-educated cohort in American history. This statement is then discussed as if it means that all boomers have college degrees. Hand in hand with this image is the perception that all members of the baby boom are professional and managerial workers.

**Married with Children?** In recent writing, boomers are most often portrayed as married with teenage or college-age children. Much attention is focused on the twin issues of empty nests and caring for aging parents. However, some commentary contradicts this family-centered image by focusing on the instability or even absence of boomer families.

**Affluent.** Boomers are widely perceived as financially comfortable and even wealthy. Marketers anticipate that aging boomers will drive up demand for high-end products such as vacation homes, luxury travel, and investment services.

**Innovators.** Boomers are viewed as the agents of the tremendous social and economic changes the United States has experienced in the last 40 years. Boomers are frequently described as pioneers: rewriting the rules, reinventing each life stage they pass through, and remaking society.

**The Me Generation.** One of the most pervasive characterizations of the boomers is that they are individualistic to the point of self-absorption. For example, baby boomers are viewed as self-indulgent consumers who have accumulated high levels of debt instead of prudently saving for retirement. Boomers are also described as obsessed with health and youth; they refuse to grow old gracefully, but will rely on products such as Botox, Viagra, and the latest herbal remedies to stave off biological aging.

quotas. In 1965, policies restricting immigration based on national origin were lifted and replaced with a system of preferences in which people with family already in the United States or with high-demand skills were given highest priority. These changes, combined with the pull of the U.S. economy and the push of demographic pressure in countries of origin, dramatically increased the flow of migrants from abroad.[5] Because immigrants tend to be young, these newcomers disproportionately swelled the ranks of the baby-boom cohorts relative to older cohorts (see Box 3, page 228). These "immigrant boomers" increased the size—and changed the face—of the boomer cohorts as they came of age.

Fourth, a revolution in cultural values changed the way Americans thought about "self." Individualism in some form has always been central to American culture. For example, self-reliance is a recurring theme in American history and literature. But the new individualism went beyond a materialistic self-reliance to a concern for autonomy, identity, and empowerment. Some scholars link these ideas to a broader shift in cultural values that became evident in all Western societies in the postwar period. This shift was away from a concern with the material conditions of day-to-day life and toward "post-materialist" concerns including self-expression and individual fulfillment. The result of these shifts was twofold: a decline in the power of traditional authority, especially with regard to life choices; and an increase in the legitimacy of individual goals over family or communal goals.[6]

This cultural shift was particularly evident in the way Americans thought about gender roles and sexual activity. Beginning in the 1960s, ideas surrounding appropriate roles for men and women began to change, spurred on by women's movement into higher education and the labor force. Changes in the workplace were assisted by the inclusion of gender as a protected category in the Civil Rights Act of 1964. Originally inserted by conservative legislators in an attempt to defeat the bill, the law had a tremendous impact in legally redefining women's rights. At the same time, attitudes toward sexual relationships became much more liberal and once-taboo premarital sex became more accepted.[7]

Although the boomers are often credited with inventing these ideas, it seems more likely that the ideas were part of a broader cultural shift. But the boomers did appear to adopt the new ideas wholeheartedly as reflected by their behaviors.

Finally, the size of the baby boom was itself a potent force. Some scholars argue that the baby boom caused many postwar social changes through the pressures and adjustments required to accommodate such large cohorts.[8] We agree up to a point with this argument, but we propose that the pivotal role of the boomers in his-

tory is both continuous and discontinuous. The boomers inherited social change, they lived through social change, and in their day-to-day lives redirected social change. Their large size amplified what may otherwise have been small differences, magnified what may have become modest effects, and made both larger than life. This probably explains why the public seems fascinated with the boomers, who have become a cultural icon for Americans of all ages (see Box 4).

# School Days

Universal education has always been a distinctive (and some would say exceptional) characteristic of American society. In fact, the ideology of the American Dream is based in large measure on education accessible to all. In the common school movement of the 19th century, local economies of farmers and shopkeepers levied taxes to develop schools with the aim of ensuring literacy and local prosperity, which led to nearly universal access to primary school education. In the first half of the 20th century, the economy added factories and then large bureaucracies to farms and small businesses as its major sites of employment. Technical and verbal skills were required in factories and offices and increasingly on farms and in small businesses. Accordingly, secondary education was required and sought after.[9] By the eve of World War II, nearly universal access had been extended to secondary education.

Following World War II and beginning with the G.I. Bill of Rights, higher education became a mass institution, with unprecedented levels of government and private resources directed toward the development of a technically skilled workforce.[10] As the Cold War heated up with the launching of the Soviet Union's Sputnik in the late 1950s and the U.S. mission to the moon in the 1960s, the ascendance of higher education on the national agenda and in the aspirations of the young accelerated. The boomers were thus born and brought up in a period when the demands for secondary and postsecondary education were the highest in history and were largely accommodated by a prosperous society. They inherited an educational system with nearly seamless opportunities to attain college diplomas and with improved chances for postsecondary attainment.

## The Best-Educated Cohort

The legacy of the American educational system is visible in the educational attainment of the boomer cohorts, often called the best-educated cohorts in the history of the United States. High school completion is nearly universal among boomer men and women (see Table 2), significantly higher than among their Jazz Age and Depression Kid parents. However, high school attainment leveled off across the boomer cohorts and dropped slightly among late-boomer men. The increased prevalence of less-educated immigrant groups in this cohort offers only a partial explanation for this phenomenon, because high school graduation dropped even among U.S.-born whites.

The boomers also have higher levels of college participation and completion than their parental cohorts. Taken together, those with some college and those with college degrees account for over half of the boomer cohorts. Contrary to the most exaggerated baby-boomer mythology, college completion is far from prevalent. Just under one-third of early-boomer men and a little over one-fourth of early-boomer women have baccalaureate degrees; among late boomers, only about one in four have graduated from college.

*Table 2*

**Educational Attainment by Gender and Cohort**

| | Ages 44–53 | | | | | Ages 35–43 | |
|---|---|---|---|---|---|---|---|
| Highest level of education | Young Progressives 1960 | Jazz Age Babies 1970 | Depression Kids 1980 | War Babies 1990 | Early Boomers 2000 | Early Boomers 1990 | Late Boomers 2000 |
| **Women** | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Less than high school | 59 | 44 | 33 | 18 | 10 | 11 | 10 |
| High school graduate | 26 | 39 | 43 | 39 | 32 | 33 | 31 |
| Some college | 9 | 10 | 14 | 26 | 32 | 31 | 33 |
| College degree or higher | 6 | 7 | 11 | 18 | 27 | 25 | 26 |
| **Men** | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Less than high school | 63 | 47 | 33 | 18 | 11 | 12 | 13 |
| High school graduate | 21 | 30 | 33 | 31 | 29 | 28 | 33 |
| Some college | 8 | 11 | 14 | 25 | 29 | 30 | 28 |
| College degree or higher | 8 | 13 | 20 | 27 | 31 | 30 | 26 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

Notably, the percentage of early boomers with baccalaureate degrees increased by 2 percentage points between 1990 and 2000. Such an increase in a maturing cohort is unique, both historically and from a cross-national standpoint. It reflects at least two distinctive cohort phenomena: the immigration of more highly educated adults over the decade, and the return to school by adult boomers to gain baccalaureate credentials. In the 1990s, economic factors increased the college premium, and the perceived threat of job loss motivated many workers to return to school.[11] However, the pursuit of higher education in adulthood can be motivated by life style choices as well. People who have some college but did not graduate are the most likely to return to college as adults. Large portions of the boomer cohorts had some college earlier in their lives, suggesting substantial potential for increased educational attainment later. Nearly one-third of boomer women had some college, exceeding men's levels. Recent studies have shown that women are especially likely to return to college after dropping out.[12]

The long-term increase in the level of educational attainment has been driven in part by changes in the economy described earlier and in part by successively better-educated parents passing this advantage on to their children.[13] Thus, each cohort has tended to be better educated than the last. In the case of college attainment levels, the trends display a notable surge upward beginning with the War Babies. A large share of this earlier cohort actually grew up in boomer families, with younger siblings born after 1945. They shared the same parents, whose educational backgrounds were improvements over earlier generations and whose aspirations for their children affected these adjacent cohorts in the same ways as they grew up in the 1950s and 1960s.

The War Babies and boomers were both exposed to enriched and expanded school curricula over the 1950s and 1960s and into the 1970s. An increased emphasis on science, mathematics, and foreign languages was motivated in large measure by the Cold War and supported by the passage of legislation like the National Defense Education Act of 1958. These funds built science labs in high schools, often managed by teachers whose own educations were supported by the G.I. Bill. They also affected other curricula. At higher rates than earlier cohorts, War Babies and boomers read American literature as varied as Henry David Thoreau's "On the Duty of Civil Disobedience," J.D. Salinger's *Catcher in the Rye*, and British literature including *Beowulf* and the works of Lord Byron and Jane Austen. They had access in public schools to music lessons, drama classes, debate teams, and sports. But school expansion in this period also introduced curricular tracking, which channeled a minority of boomers into precollege tracks and others into general educational and vocational training tracks.[14]

Differential exposure to higher education would influence early diversity in political ideologies among the War Babies and early boomers. Images of the 1960s and 1970s often include scenes of rebellious youth, usually on college campuses, marching for free speech and civil rights and against the Vietnam War. These images distorted the actual diversity of their lives at that time. About one-third of the early boomers served in Vietnam.[15] Polls taken during the period disclosed highly divergent values and ideologies among them. Younger voters (including boomers) were significantly more likely to support right-wing candidates. Supporters of George Wallace during the 1968 presidential election were disproportionately young, from the South and rural regions, and less-educated and poor.[16] This schism would foreshadow a persistent theme in boomer politics.

## Educational Advantage For Late-Boomer Women

Levels of education have risen for men and women alike. But a crossover in men and women's attainments emerged among late-boomer women. These women are more likely than men to have participated in college and as likely to have obtained a college degree or higher. Their average years of schooling are higher than men's. A gender gap appears at the bottom of the educational distribution as well—a higher percentage of men than women have not completed high school. Women appear more likely both to persist and to return to school in adulthood following interruptions related to work and family roles.[17]

These patterns have continued among cohorts younger than the boomers.[18] In this respect, the baby boomers—and particularly the late boomers—are pivotal. Their lives embody the redirection of long-term increases in gender equality toward educational advantages for women.

## Racial Inequality in Diplomas

Access to quality education has never been equally distributed. Race, class, and gender have stratified opportunities for educational attainment throughout U.S. history. The common-school movement of the 19th century and the secondary school expansion of the early 20th century were not equally inclusive in all regions of the United States. Segregated and unequally funded school systems prevailed in the South and adjacent regions until the 1960s, when desegregation was actively implemented following Brown v. Board of Education and passage of the Civil Rights Act a decade later.

Segregation suppressed the educational attainment of nonwhite and lower-class students. Indeed, African Americans began migrating to Northern cities after World War I seeking better school and job opportunities.[19] Similarly, the most elite colleges remained segre-

gated by gender until the boomers had already begun to enter them. Finally, immigrants entering the United States during the 20th century arrived with different levels of prior educational attainment and encountered differential opportunities for school participation and educational attainment.

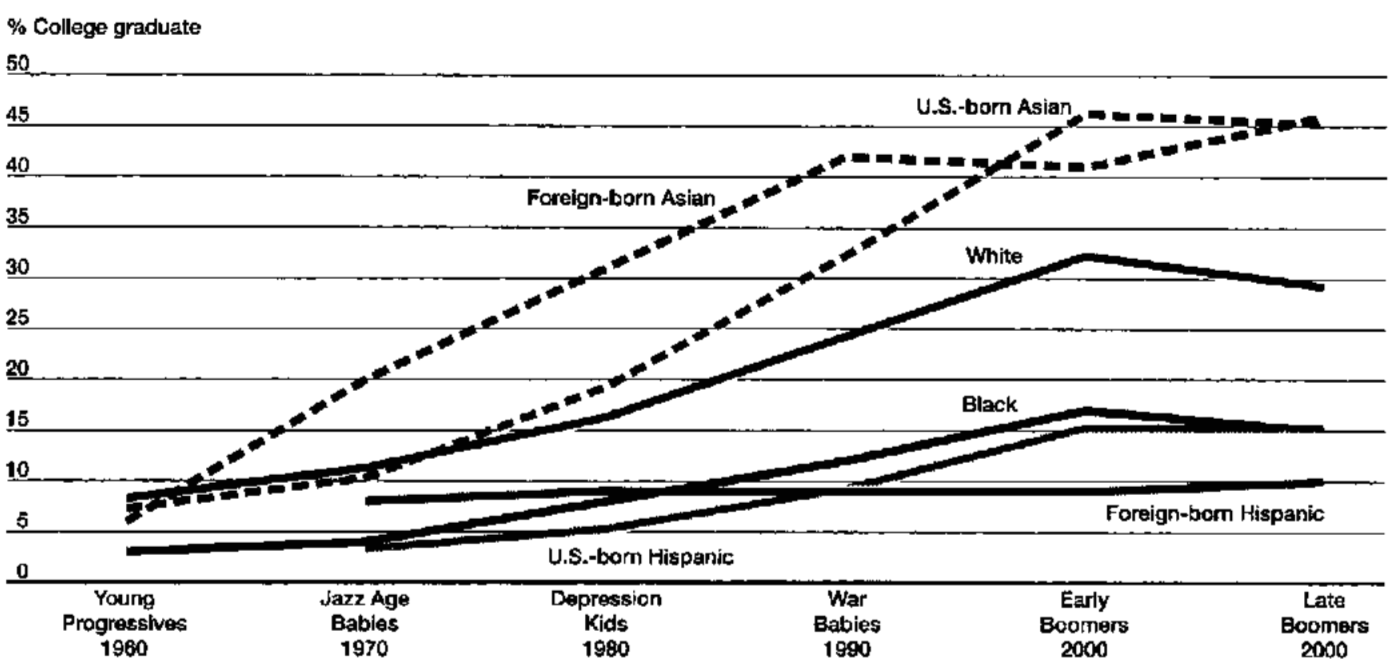
The pattern of increasing educational attainment has therefore not been the same in all racial, ethnic, and nativity groups. Groups have improved their educational attainment at different rates, eliminating some disparities and reinforcing or creating others. Except for Hispanic immigrants, all groups have experienced a steep increase in the likelihood of completing a high school diploma. The proportion of high school graduates among black War Babies increased dramatically over previous cohorts, then rose more gradually among the boomers. These increases probably reflect the improvement of educational opportunities before and after World War II, first among black cohorts who migrated to Northern or Western cities, then among those growing up during the expansion of secondary and postsecondary education under integration policies.

Although racial and ethnic disparities in high school completion have narrowed, gaps remain. U.S.-born Asian and white advantages relative to blacks persist. The low levels of high school completion among immigrant Hispanics no doubt reflects educational opportunities in their nations of origin and shows that the Hispanic immigration stream is dominated by people of lower education. This disadvantaged group represents a higher percentage of the boomer cohorts than previous cohorts.

Cohort rates of college completion diverge dramatically across race, ethnic, and nativity groups (see Figure 2). All groups have similarly low levels of college attainment in the Young Progressive cohort. Over the next four cohorts, the fraction of college-educated among U.S.-born and foreign-born Asians rises sharply, while the percentage of college-educated among foreign-born Hispanics does not increase at all. The percentage of white college graduates increased a great deal, but not as much as among Asians. Although the proportionate gains among U.S.-born Hispanics and blacks were larger than the gains among whites, in absolute terms their gains lagged far behind those of whites.

Thus, there is a negative side to cohort increases in educational attainment: Absolute race/ethnic/nativity differentials in college completion are wider in the boomer cohorts than in any previous cohort. Despite decades of efforts to extend the opportunity for higher education to all, differential attainment has persisted and is magnified in the boomer cohorts.

*Figure 2*
**PERCENT OF AMERICANS WITH A COLLEGE DEGREE, BY COHORT AND RACE/ETHNICITY/NATIVITY**




Note: Cohort members were ages 44–53 in the year given, except for late boomers, who were ages 35–43 in 2000.
Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

# Boomers at Work

The growth of the U.S. economy through history can be attributed in large measure to the growing size of the labor force and to the productivity of American workers. Generations of immigrants have come to the United States to find work and begin new lives. The 20th century began with the highest level of immigration in history, welcomed by industrialists like Henry Ford, John D. Rockefeller, and Andrew W. Mellon who were building manufacturing industries that initiated the elevation of the United States to a world power by the end of World War II. These male-dominated industries became ladders of upward social mobility in which employment security, wage growth, and job promotions were expected in exchange for employee loyalty. Worker compensation was based on a family wage system, predicated on the male breadwinner family. This occupational welfare system was reinforced by New Deal policies. The pattern was interrupted only briefly by World War II, when masses of young American men were mobilized for military service and women went to work in previously male-dominated industries. Following the war, the labor market returned to "normal"—until things began to change about the time the War Babies and baby boomers began to work.[20]

As the earliest boomers came of age, the U.S. economy began to shift more rapidly than before toward service and knowledge industries and away from traditional heavy manufacturing. These shifts were driven by technology and by global processes including competition and the reorganization of the international division of labor. As mentioned earlier, the oil crisis of the early 1970s was a watershed event after which manufacturing jobs in the United States steadily disappeared. The new jobs required intellectual ability, social skills, and postsecondary credentials, and they suited women as well as men. Also, in part as a result of affirmative action legislation in the 1960s, the ideology of meritocracy was spreading in the workplace, where bureaucratic institutions began rationalizing their procedures and policies in the direction of gender neutrality.[21]

Meanwhile, in addition to the disappearance of traditional manufacturing jobs in the major heavy industries, workplace institutions associated with these male-dominated jobs also declined. Union membership, which had almost never exceeded 30 percent of the labor force in the United States, began a steady decline. Many of the gains from labor-management accords that had bolstered job security, wages, and fringe benefits in male-dominated sectors disappeared with accelerating speed over the 1980s and 1990s. Worker power declined and employers increasingly shifted their allegiance toward stockholders and away from workers.[22]

## Young Boomers Confront a Changing Economy

Young baby-boomer cohorts entered this changing workplace and increased the number of people employed in the 1970s by over 21 million and in the 1980s by more than 18 million.[23] A large share of this growth was due to boomer women's increased participation—and persistence—in the workforce. Indeed, as the War Baby and baby-boom cohorts matured, the lives of men and women began to look more similar in important respects. Both spent more years in school followed by more years working than earlier cohorts. Compulsory military service still applied to War Baby and early-boomer men but disappeared for the youngest boomers and later cohorts. Accordingly, boomer men and women began following generally similar paths into adulthood by moving from school to work.[24]

The behavior of these young adults changed the age pattern of women's participation in the labor force. During the first two decades following the war, middle-aged and older women accounted primarily for labor force increases. War Baby and early-boomer women—and later, late-boomer women with young children—accounted for the continued growth in employment rates. The common thread across cohorts was married women's dramatic increase in employment. But the pivotal change among War Babies and boomers was the pattern of spending more years continuously at work after entering the workplace earlier in their lives and while maintaining family roles over their lives.[25]

Some scholars have associated these changes with the birth control pill. The Food and Drug Administration approved the pill in 1960. Five years later, 40 percent of young married women were on the pill. In another five years, use of the pill spread rapidly among unmarried women.[26] The control of fertility not only reduced the necessity to marry in order to have sex, it also reduced the costs of investing in higher education and committing to work and family careers simultaneously. But the pill can only help in explaining women's labor supply. As noted earlier, the demand for women's work had also increased.

## Women Working Much More, Men a Little Less

Work is central to the lives and identities of baby boomers. In midlife, nearly nine of 10 boomers work, representing the highest employment levels of all cohorts. Underlying these averages are two related but countervailing trends: the steady increase in women's employment at middle age and a less dramatic decline in men's employment in middle age. Boomer women's employment levels are higher than the average for all working-age women. While two-thirds of all working-

*Table 3*

**PERCENT OF MEN AND WOMEN EMPLOYED PREVIOUS YEAR BY COHORT**

| Cohort | Year | Employed last year: All | Female | Male |
|---|---|---|---|---|
| **At ages 44–53** | | | | |
| Young Progressives | 1960 | 73 | 52 | 95 |
| Jazz Age Babies | 1970 | 76 | 58 | 95 |
| Depression Kids | 1980 | 76 | 62 | 91 |
| War Babies | 1990 | 83 | 75 | 91 |
| Early Boomers | 2000 | 84 | 79 | 89 |
| **At ages 35–43** | | | | |
| Early Boomers | 1990 | 86 | 79 | 93 |
| Late Boomers | 2000 | 85 | 79 | 91 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

age women were employed in 1999, four of five boomer women were working (see Table 3). The biggest change for women occurred between the War Babies and the two preceding cohorts. Boomer employment rates are only slightly higher than War Babies' rates.

The 1990s produced a slight downward shift in employment of baby-boom men. Early-boomer employment rates are slightly lower than War Babies at the same age and reflect a drop of 4 percentage points between 1990 and 2000. And late boomers had slightly lower employment rates than early boomers at the same age.

These apparent declines among prime working-age men have been variously attributed to early retirement, disability, and job instability. Job instability is arguably the major contributor. The boomers, especially those born in the later years, have faced greater job instability over their work lives than their older siblings and their parents. Sectoral shifts, recessions, and corporate strategies to cut costs by trimming workforces through layoffs, contingent work, and outsourcing have confronted the late boomers nearly continuously since entering the labor market. Those without educational credentials were the most vulnerable to these shocks—so much so that some scholars suggest that the American dream of upward mobility may have been denied to a significant share of the baby boom.[27]

The growing instability of jobs and the decline of the so-called "employment relationship," which promised lifetime work with the same employer, may influence how boomers look toward retirement. Frequent job shifts and unemployment during the traditional peak earnings years (between ages 45 and 55) can retard pension saving. For those climbing the promotion and wage ladder with each job change, the pension consequences may be positive. But for those losing jobs and experiencing involuntary unemployment, retirement may be more problematic. In any case, boomer men and women are approaching retirement with different work histories and with different retirement saving opportunities than earlier cohorts. The budgetary risks that the boomers may present to the U.S. pension and health care systems are now matters of considerable concern, bordering on alarm (see Box 5, page 235).

## Men's Jobs and Women's Jobs

The occupational distribution of workers across boomer cohorts has been influenced by at least three interdependent forces:

- Accelerating structural shifts away from blue-collar work toward high-end (professional/technical) and low-end (clerical and sales) white-collar work;
- Changing patterns of occupational segregation on the basis of gender and race/ethnicity; and
- Increasing demand for postsecondary credentials.

Table 4 (page 236) compares the occupational distribution of men and women across cohorts in their prime working years. The largest category of male workers continues to be blue collar (crafts, operatives, and related occupations), but the proportion of men working in these occupations declined by about 25 percent between the Young Progressives and the early boomers. Meanwhile, the share of men working in professional and technical occupations between these cohorts doubled.

The largest occupations among boomer women continue to be clerical and sales, although this reflects a decline from the high of 40 percent among Jazz Age Babies. The more dramatic change has been in women's participation in professional and technical occupations. Nearly one-third of early-boomer women are in this category and nearly the same proportion of both boomer groups falls into this category at ages 35 to 43. Women have also moved into managerial and administrative occupations; one in 10 boomer women is in this category.

In short, women's growing employment across cohorts has been channeled steadily into low-end (clerical and sales) and increasingly into high-end (professional and technical) white-collar work. Men typically remain concentrated in blue-collar jobs but have shifted to managerial and professional categories as well. Among boomers, men's and women's occupational segregation has persisted with respect to blue-collar and low-end white-collar work, but diminished with respect to professional, technical, and managerial work.

Indices of sex segregation calculated for comparable occupations across censuses suggest that sex segregation has declined within occupational categories.[28] Indices of sex segregation range from 0 to 1.0 and indicate how many of every 100 women would have to

*Box 5*

## Will Retiring Boomers Go Bust or Bust the Budget?

When the oldest boomers reach age 59 1/2 (in 2005), some of them may begin withdrawing money from their retirement accounts; when they reach age 62 (in 2008) they are eligible for reduced Social Security benefits; and when they reach age 66 (in 2012) they may begin receiving full Social Security benefits. Is the federal budget ready for them to retire?

Average retirement ages steadily dropped below the age when workers are eligible for Social Security benefits, beginning with the Young Progressives and ending with the War Babies. The trend reflected two different sets of circumstances. First, workers covered by defined benefit pensions in major industrial and public sectors left the labor force voluntarily after many years in their jobs. Defined benefit pensions promise a calculable lifetime retirement annuity based on years of service and salary level at the end of the career. In addition, the manufacturing sectors contracted during the 1970s and 1980s; plant closings and downsizings encouraged employers to reduce their older workforces by offering retirement packages.[1]

A second set of workers retired early for different reasons. Some low-wage workers, usually without employer pension coverage, tended to retire at age 62 when they qualified for reduced Social Security benefits. The earnings replacement rates of Social Security provided incentives to leave often physically demanding jobs or poor working conditions. Many of these early retirees were in poor health or were disabled.[2]

By the mid-1990s, the median retirement age for men and women was age 62, but the labor force behaviors of older workers appeared to be changing. The three-decade long trend toward early retirement among men halted, while older women's labor force participation continued to increase.[3] Workers between ages 55 and 65 stayed in the labor force at higher rates than only a few years earlier. These workers included members of the War Baby cohort, whose educational and occupational histories have looked much like those of boomers.

Defined benefit pensions have declined as the major retirement benefit offered by employers, while defined contribution plans are spreading rapidly. Defined contribution plans are tax-sheltered retirement accounts accumulated as investments in portfolios of equity, bond, money market, and other speculative products. Workers are responsible for participation and contribution levels and bear the financial risks. Employers usually, but not always, also contribute to these accounts. The so-called 401(k) is the fastest growing type of defined contribution plan.

This innovation in the workplace has exposed workers directly to the bond and stock markets as investors. The stock market bubble between 1995 and 2002 first doubled stock prices and increased portfolios by nearly 60 percent during the boom phase of the bubble. This increased retirement by over 3 percent. However, in the bust that followed, which nearly wiped out the earlier gains, a comparable decline in retirement occurred.[4]

Recent evidence suggests that the late boomers are less likely to have retirement plan coverage than the older cohort at the same age. Early-boomer men's and women's coverage by a pension plan was 70 percent and 66 percent, respectively, in 1998; late-boomer men's and women's coverage was 66 percent and 64 percent, respectively. Overall pension savings appeared to be low. In defined contribution plans, early-boomer men had median account balances of $26,000 in 1998, and early-boomer women had $22,000; late-boomer men had $22,000 and women $8,000.[5]

Three major changes in the Social Security system already signal delays in eligibility for full benefits to later ages for the baby boomers, increasingly less-generous benefits for boomers who retire early at age 62, and the elimination of mandatory retirement in 1986. For boomers born between 1946 and 1954, the age of eligibility for full Social Security benefits is 66; for those born later the eligibility age rises by two months for each year of birth until 1960, after which full retirement benefit eligibility begins at age 67. Retirement after eligibility ages brings higher benefits with each year of continued work. Meanwhile, reduced benefits at age 62 will decline for younger boomers.

The most recent change in the Social Security system is the elimination of the earnings test, which limited the amount retirees ages 65 to 69 could earn without benefit penalties.

Recent surveys of boomers suggest that they plan to work later and to continue to work after they retire. More advantaged members of the cohort with higher educations, better jobs, and high consumption levels may want to continue working; less advantaged members of the cohort with lower educations, bad jobs, and higher risks for poverty may have to continue working.

The issue of inequality is particularly poignant for disadvantaged minorities and women who are at higher risk of non-coverage by pensions because of their labor market locations. Women live longer than men, have longer experiences with disability, and greater requirements for long-term care. Widows and divorced or never-married women who find themselves alone in old age with limited retirement incomes are permanent concerns of retirement policymakers.

The proposed Social Security personal retirement account is a response to the fear that the baby boom's looming retirement presents a long-term financing problem and intergenerational burden. Concerns about the solvency of the Social Security Trust Fund have already led to major changes in the Social Security system to discourage early retirement.[6]


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*Table 4*

**MAJOR OCCUPATIONS OF U.S. MALE AND FEMALE WORKERS BY COHORT**

| | Young Progressives, 1960 | | Jazz Age Babies, 1970 | | Depression Kids, 1980 | | War Babies, 1990 | | Early Boomers, 2000 | | Late Boomers, 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Occupation | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Prof./technical | 9 | 13 | 14 | 14 | 17 | 17 | 20 | 24 | 22 | 31 | 20 | 29 |
| Managerial/admin. | 14 | 5 | 13 | 4 | 17 | 7 | 19 | 11 | 17 | 10 | 15 | 11 |
| Clerical/sales | 12 | 35 | 13 | 40 | 13 | 39 | 13 | 36 | 13 | 34 | 12 | 33 |
| Crafts/operatives | 44 | 20 | 43 | 19 | 38 | 15 | 33 | 11 | 34 | 9 | 37 | 10 |
| Service workers | 6 | 22 | 7 | 20 | 7 | 18 | 7 | 16 | 8 | 14 | 9 | 16 |

Note: Farmer and laborer categories were omitted. Cohort members were ages 44–53 in the year given, except for late boomers, who were ages 35–43 in 2000.
Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Table 5*

**PERCENT OF U.S. MEN AND WOMEN IN HIGH-LEVEL PROFESSIONAL/TECHNICAL OCCUPATIONS, BY COHORT**

| Cohort | Year | Men | Women |
|---|---|---|---|
| Young Progressives | 1960 | 8 | 4 |
| Jazz Age Babies | 1970 | 12 | 6 |
| Depression Kids | 1980 | 14 | 8 |
| War Babies | 1990 | 17 | 12 |
| Early Boomers | 2000 | 19 | 18 |
| Late Boomers | 2000 | 18 | 18 |

Note: Nurses and elementary and high school teachers were excluded. Cohort members were ages 44–53 in the year given, except for late boomers, who were ages 35–43 in 2000.
Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

switch jobs from a predominantly female to a predominantly male occupation to produce a fully integrated labor force. The highest segregation index was 0.69 in 1910, implying that two-thirds of women would have to switch jobs. This level of segregation persisted until the boomers began to enter the workforce. Over the three decades following 1970, the figure fell from 0.68 in 1970 to about 0.53 in 2000.[29]

In addition, boomer women have broken paths into nontraditional professional/technical occupations; and they have been followed by younger cohorts with even higher entry levels who have encountered less resistance in more meritocratic workplaces.[30] Along these lines, when we compare cohort rates of employment in high-level professional and technical careers (excluding the traditional female professions of nursing and elementary and secondary teaching), the pattern of gender convergence is straightforward (see Table 5). Boomer men and women are equally represented in high-level professional and technical occupations at midlife; one of every five from both groups is located in an elite occupation.

These trends reveal the extraordinary occupational mobility of a significant minority of men and women in the boomer cohorts. Furthermore, they underscore the convergence of men's and women's commitments to careers because these occupations involve long-term investments in education and high time demands at work. For well-educated boomer women, these choices signaled a preference for a personally and economically satisfying career path as part of their lives, over and above family relationships.

## Race, Ethnicity, and Occupational Achievement

While we have observed some gender convergence among boomers in education and upward occupational mobility, the pattern among race/ethnic and nativity groups has been divergence. Mobility into high-level professional, technical, and managerial positions increased significantly between the Jazz Age Babies and early boomers for all white and U.S.-born groups, but rates of mobility have been highly unequal across these groups (see Table 6, page 237). Beginning with the War Babies, U.S.-born Asians have been the most successful in achieving these positions; over half of U.S.-born Asian boomers were employed in these jobs in 1999. Non-Hispanic white boomers followed at 10 percentage points lower, and blacks and U.S.-born Hispanics were approximately 20 percentage points lower than U.S.-born Asians.

The divergence is even more dramatic when immigrant groups are compared. Foreign-born Hispanics have not experienced any occupational mobility across cohorts. But Asian immigrant groups, who have come to represent relatively large portions of the boomer cohorts, have fared generally as well as non-Hispanic whites.

These inequalities follow directly from differential educational achievement levels. Higher levels of educational attainment moved boomers upward in occupational hierarchies. These advantages cumulated over time and brought other rewards, including higher occupational achievement. The credential advantage is evi-

*Table 6*

**PERCENT OF AMERICANS IN HIGH-LEVEL PROFESSIONAL, TECHNICAL, AND ADMINISTRATIVE OCCUPATIONS, BY RACE/ETHNICITY/NATIVITY AND COHORT**

| Cohort | Year | Non-Hispanic whites | Non-Hispanic blacks | U.S.-born Hispanics | Foreign-born Hispanics | U.S.-born Asians | Foreign-born Asians |
|---|---|---|---|---|---|---|---|
| Jazz Age Babies | 1970 | 26 | 10 | 12 | 13 | 24 | 27 |
| Depression Kids | 1980 | 32 | 18 | 18 | 15 | 37 | 35 |
| War Babies | 1990 | 40 | 24 | 25 | 17 | 43 | 44 |
| Early Boomers | 2000 | 43 | 28 | 32 | 16 | 52 | 41 |
| Late Boomers | 2000 | 41 | 26 | 29 | 15 | 51 | 48 |

Note: Nurses and elementary and high school teachers were excluded. Cohort members were ages 44–53 in the year given, except for late boomers, who were ages 35–43 in 2000.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

dent in the differential rates of occupational mobility that place men and women in the non-Hispanic white and U.S.-born Asian groups ahead of others. In turn, these occupational achievement levels influence earnings inequality among boomers.

## Unequal Paychecks

The last few years of sustained wage growth in the postwar United States arrived in the late 1960s and early 1970s as the early boomers began entering the workforce. Between 1945 and 1973, wages grew between 2 percent and 3 percent per year. After 1973, the growth in wages in the restructuring economy slowed to between 0 percent and 1 percent and actually declined in some sectors. One consequence of these trends has been an increase in wage inequality that accelerated over the 1980s and 1990s.[31]

Wage growth over the work career ideally begins with early job shopping, quickly followed by stable employment. Among early boomers, even lower levels of education could be overcome as handicaps to wage mobility if young workers quickly moved to stable employment within the first decade of their work careers. Stability built experience that improved long-term wage rewards.[32] However, this ideal scenario became increasing elusive over the 1980s and 1990s. Employment instability, including job changes and periods of involuntary unemployment, became more and more pervasive among young workers by spreading from the manufacturing sector to mid-level white-collar sectors. Over time, wage penalties for these work patterns grew in tandem with an increased demand for college degrees.

The result at midlife for the boomers is the highest wage inequality of all cohorts (see Figure 3). Wage patterns (in constant dollars) across cohorts reveal a widening of the difference between mean and median wages for men and women, although the level of inequality has increased more dramatically among boomer men. The level of wages in a population can be measured in two different ways. The mean wage shows the arithmetic average. The average is sensitive to values at the very high or very low ends. The median wage is the point at which half the group has higher wages and half has lower wages. The median is not sensitive to extreme values. Because of the differences in how the mean and median measure wages, comparing them shows the degree of wage inequality in the population.

The intercohort rise of mean wages relative to median wages indicates that when wage growth occurred it was at the top of the distribution. The intercohort trend in median wages indicates that men in these age groups generally experienced wage deterioration after 1980. Stagnation and then decline occurred for men at the bottom of the wage distribution and, for the boomers, wage decline at the bottom was accompanied by no gain at the top.[33] Early-boomer men at the bottom of the wage distribution in their 30s fell further by their 40s. Moreover, late-boomer men in their 30s looked worse than their older counterparts at the same ages.

Boomer women, on the other hand, show steady increases across the wage distribution, although higher wages moved up more between the War Baby and early-boomer cohorts. Late-boomer women are doing better than their counterparts at the same ages. These patterns probably reflect the educational advantages of boomer women, especially late-boomer women.

## The Gender Wage Gap Narrows a Bit

In 2000, early-boomer women earned 63 cents for every dollar their male counterparts earned. In that year, the gender wage gap for workers of all ages was narrower, 73 cents. Ten years earlier, the early-boomer gender gap was 55 cents, indicating a relative improvement for women in this cohort over the 1990s (although it is important to remember that men's median wages declined by 2 percent). The late-boomer gender gap equals their older sisters' in the same year. Early-boomer women experienced improved wages relative to men over the 1990s, but their younger sisters came

closer to men in their cohort earlier in their lives. Both trends reflect declines in men's wages as much as increases in women's for these cohorts.

Gender wage inequality occurs across the occupational distribution and even among boomers in the highest occupational categories. As we reported earlier, higher educational attainment moved more boomers into high-end service, professional, and managerial occupations. And men and women were equally represented in high-level careers by midlife. These men and women earned higher average wages than middle-aged workers generally, but they were still unequal among themselves (see Table 7). The gender wage gap among these privileged workers was higher; boomer professional women's median earnings were 58 percent of men's. The gap between the mean earnings of these groups was even larger at 52 percent, suggesting even higher inequality at the top of the distribution. The gender wage gap among well-educated workers is evident even in the most elite occupations that require extensive investments in educational preparation (meaning more than baccalaureate degrees) and extended work weeks and work years. For example, a recent longitudinal study following samples of late-boomer cohorts of male and female scientists from middle school to their early careers found that marriage and childbearing persistently depressed women's career advancement in the sciences.[34]

*Table 7*

**MEN'S AND WOMEN'S MEAN AND MEDIAN WAGES IN HIGH-LEVEL PROFESSIONAL/TECHNICAL OCCUPATIONS, BY COHORT, IN 1989 DOLLARS**

| | | Men | | Women | |
|---|---|---|---|---|---|
| Cohort | Year | Mean | Median | Mean | Median |
| Young Progressives | 1960 | $35,362 | $31,737 | $18,177 | $18,105 |
| Jazz Age Babies | 1970 | 47,006 | 42,545 | 21,760 | 20,510 |
| Depression Kids | 1980 | 46,255 | 41,306 | 20,078 | 18,705 |
| War Babies | 1990 | 51,610 | 42,000 | 24,333 | 22,000 |
| Early Boomers | 2000 | 52,225 | 39,760 | 27,120 | 22,720 |
| Late Boomers | 2000 | 47,247 | 36,920 | 26,512 | 21,513 |

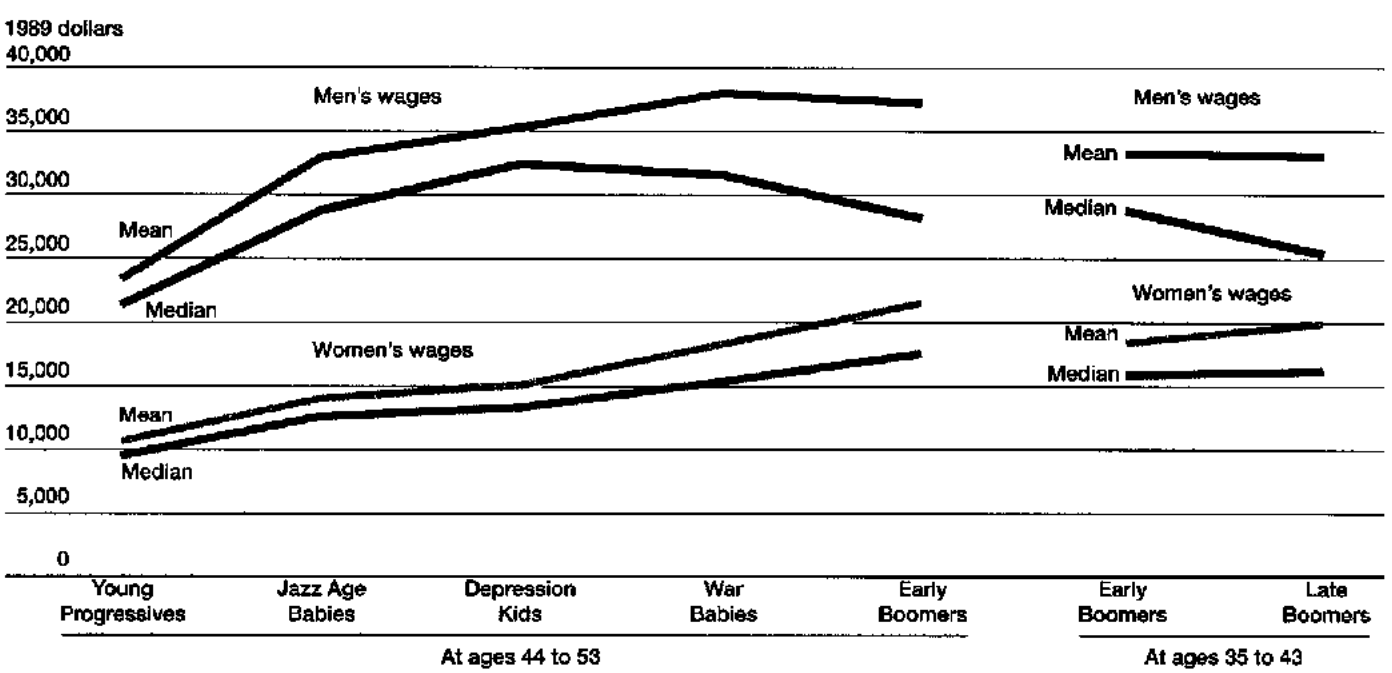
Note: Nurses and elementary and high school teachers were excluded. Cohort members were ages 44–53 in the year given, except for late boomers, who were ages 35–43 in 2000.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

The explanations for this effect reside both in the workplace (where family support policies have not been widespread over the childbearing and childrearing years of boomer women) and in the household (where the gender division of labor in housework and childcare has stubbornly persisted). Legislation in the 1990s to support

*Figure 3*

**MEN'S AND WOMEN'S MEAN AND MEDIAN WAGES BY COHORT, IN 1989 DOLLARS**




Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

family leave policies represents a beginning effort to confront these problems, but the legislation arrived too late to benefit the majority of boomer women.[35]

# Family Affairs

Americans are often surprised to learn that late marriage, permanent singlehood, small families, childlessness, and divorce have a long past in the United States. As in many Western nations, Americans have always waited to marry until they were economically self-sufficient, which meant that they often married in their mid- to late 20s and sometimes were not able to marry at all. Average family size declined in the United States throughout the 19th century, mirroring fertility declines in European nations. American divorce rates increased steadily between the Civil War and the outbreak of World War II. These family patterns, which reflect the long-term demographic history of the United States, were well established at the turn of the 20th century.[36]

The baby boom was the outcome of an extraordinary but temporary shift in these patterns. Between the end of World War II and the early 1960s, young adults married and had children at historically young ages. Few people remained single, and although divorce rates increased, they did so more slowly than they had in previous decades. The result, of course, was a large increase in the number of children born in those years. However, by the time the leading edge of early boomers reached adulthood in the mid-1960s, earlier family patterns were reemerging. Among late War Babies and the earliest boomers, marriage and childbearing shifted back to patterns more consistent with historical trends.

The bulk of the boomer cohorts inherited a modern family pattern with deep roots in the social and economic history of the United States. As the boomers came of age, they transformed this pattern. New experiences with education and work stemming from social change combined with new ideas about the importance of the individual to alter the context in which the boomers made decisions about family life. As they responded to new realities, the boomers adapted traditional family behaviors and created new family behaviors.

## Marriage Delayed and Transformed

Because marriage is at the heart of the American family, changes in marriage were fundamental to the boomers' transformation of family life. New economic and cultural realities dramatically altered not just the context in which boomers decided about marriage but the institution of marriage itself. The result was that the boomers, especially late boomers, married later in life than earlier cohorts.

Table 8 shows the percentage of ever-married women by age in each of our cohorts (cohort patterns of family formation are generally symmetric for men and women, so to simplify the presentation we show results only for women). The age pattern of marriage among early boomers is not unprecedented. Members of this cohort married later than the previous three cohorts, but their age pattern closely resembles the pattern for the Young Progressives, the cohort that most closely matches historical patterns. However, the age pattern of marriage among late boomers is historically unusual. Late-boomer women and men are delaying marriage to a degree never recorded in the United States.

*Table 8*
**Percent of Women Ever-Married by Selected Ages and Cohort**

| Cohort | Age | | | | |
|---|---|---|---|---|---|
| | 20 | 25 | 30 | 35 | 40 |
| Young Progressives | 35 | 73 | 87 | 92 | 93 |
| Jazz Age Babies | 41 | 79 | 89 | 92 | 94 |
| Depression Kids | 51 | 84 | 91 | 94 | 95 |
| War Babies | 51 | 82 | 89 | 92 | 94 |
| Early Boomers | 45 | 75 | 84 | 88 | 91 |
| Late Boomers | 33 | 63 | 78 | — | — |

— Not applicable.

Source: Authors' estimates based on the Surveys of Income and Program Participation, 1986 and 1996.

One cause of these marriage patterns was male boomers' experiences with education and work. Americans have always waited to marry until they were economically secure. This imperative applied especially to men, who were expected to provide most of a family's income. When economic conditions were inauspicious, marriage was postponed because establishing economic security was more difficult. As we have seen, boomer men entered the work world as educational credentials became more important to labor market success, lengthening the time required to attain economic security. At the same time, a restructuring and stagnant economy made attaining this security more difficult regardless of educational level. For boomer men with lower levels of education, such security was often simply out of reach. Some of the delay in marriage among boomers reflected the traditional response to the effects of an unfavorable economy on men's economic prospects.[37] This response was most marked among the late boomers, who had the more difficult time in the labor market.

But difficult economic conditions are only part of the story. The "silent revolution" in cultural values that began in the 1960s also affected marriage in the boomer cohorts. The weakening influence of traditional authority and increasing legitimacy of individual freedom profoundly altered Americans' ideas about gender, sexuality, and the family.[38]

New ideas about the appropriate roles for men and women were probably the most important catalysts for family change. Boomers grew up with a breadwinner-homemaker model of the family, in which men worked for pay and women cared for the home and children. This model, which had emerged with industrialization, depended on men's wages being high enough to support a family and the consequent exclusion of married women from market work. As structural economic change pulled women into the labor force, they were confronted by the formal and informal rules upholding this system. Bolstered by the new ideas emphasizing the power of the individual, women challenged these arrangements through the women's movement of the 1960s and 1980s. Although not all women actively participated in the movement, it had a tremendous impact on perceptions about what women—and men—could and should do and be.[39]

Boomer women encountered these ideas at the threshold of adulthood just as they were making decisions about education, work, and family. As they increasingly viewed work as a lifetime commitment central to their identities, boomer women took time to invest in education and establish work histories prior to marriage. Moreover, the economic foundations of marriage shifted so that women's earnings became a much more important part of family income. Thus, in contrast to previous cohorts, women's economic security appeared to be a prerequisite for marriage among late boomers.[40] Women's investments in education and work became necessary for marriage but further delayed marriage.

Women's growing economic roles posed a direct challenge to the breadwinner-homemaker family. This challenge was strengthened by the other half of the gender revolution, which concerned men's family roles.[41] A new model of masculinity encouraged boomer men to play a more active role in housework and childrearing. However, in contrast to women who moved overwhelmingly into paid work, men remained, on average only modestly engaged in the household.

Changes in attitudes toward sexuality were a second important catalyst for changes in marriage and family. Prior to the 1960s, sex was considered a matter for married people only; couples had sex only upon marriage or shortly before marriage. These attitudes were codified in a collection of laws prohibiting particular sex acts and the distribution (and even discussion) of contraception. The 1960s' cultural shift capped a century of changing attitudes, and many of these laws were abolished as norms became much more tolerant.[42] Sex before marriage became more accepted as sexual decisions became a matter of private and not public morality. These changes were helped along by important new advances in contraceptive technology, notably the pill and the IUD. These methods made control of reproduction much more effective and placed this more effective control in women's hands.

Boomer men and women quickly adopted these new norms. Greater freedom surrounding sexuality meant that one of the main drawbacks to delaying marriage, delaying regular and sanctioned sexual activity, was removed. In addition, women's increased control over their reproduction and sexuality amplified the effects of the gender revolution on the family.

Changing gender roles and shifting sexual norms altered the meaning of marriage. A third effect of changing values was to change the place of marriage in individual lives. For previous cohorts, marriage was a central goal and an important symbol of adulthood. For boomers, increased emphasis on self-fulfillment and personal growth meant that other kinds of goals, including interesting work, material satisfaction, and self-expression, became equally important. As marriage for marriage's sake became less important, marrying as soon as possible was no longer necessary. Paradoxically, the shift toward self-fulfillment also meant that people expected more out of their family relationships, especially from the conjugal relationship. Love and affection were certainly a part of marriage for prior cohorts. However, among boomers, an emotionally satisfying and sexually charged relationship became the main foundation of marriage. Finding such a soul mate is difficult, which probably contributed to delayed marriage among boomers.[43]

All of these economic and cultural forces increased the uncertainty surrounding courtship, and that uncertainty also contributed to delayed marriage among late boomers.[44] Changes in the meaning of marriage made the old rules of courtship obsolete. But the new rules were incomplete. For example, while women's new roles in the economy were quite clear, men's new roles in the household were not. Control over fertility changed women's bargaining position in complex ways. Some people embraced new ideas while others rejected them. Combined with a model of marriage based on egalitarian roles and emotional intensity, the lack of a map led to confusion and even distrust, as men and women struggled to make sense of these social changes in the context of their own lives.

The boomers, especially the late boomers, were thus the first participants in the retreat from marriage that characterizes the contemporary American family. Many people have wondered whether these lower marriage rates mean that late boomers are delaying marriage or forgoing marriage all together. A recent set of forecasts suggests that late-boomer women will marry at relatively high rates in their 30s and 40s. Thus, though they will not reach the nearly universal marriage of the Jazz Age Babies and Depression Kids, their levels of marriage will eventually be comparable to historical cohorts.[45] This forecast is consistent with survey data suggesting that boomers, as well as all Americans, value marriage and intend to marry.[46] What seems to have

changed is how we think and decide about marriage, not the desire for marriage.

These marriage patterns appear to be here to stay. Marriage patterns in successive cohorts are similar to those among late boomers.[47] American marriage has changed dramatically, and the boomers, by reacting to economic and cultural change, played a pivotal role in effecting these changes.

## New Challenges to Marriage and Family Life

Although boomers married at higher ages than preceding cohorts, the age at which they left home increased only slightly and only among the youngest boomers. This meant that the gap between major family roles—being a child and being a spouse or parent—widened. The boomers filled this gap with new forms of independent living, which transformed not only the family but also the entire transition to adulthood.

Historically, young unmarried people typically lived with their parents or in another household as boarders or lodgers. Young adults rarely established independent households, a transition associated only with marriage. Cohorts coming of age in the first half of the 20th century followed this pattern. When these young people left home prior to marriage, they usually did so to go to school, to serve in the military, or to find work. In each of these cases, they lived in some kind of institutional housing arrangement. Leaving home before marriage was much more common among men; women generally stayed at home until marriage.[48]

This long-term pattern changed with the boomers, although it first became visible among their older brothers and sisters, the War Babies. Unmarried boomer men and women left home in larger numbers. More important, they set up independent households, either immediately upon leaving or after they completed their educations. Some lived with roommates, others lived alone. Living alone in cities became a new, glamorous stage in the transition to adulthood, symbolized by television shows such as "Mary Tyler Moore" or "That Girl."

These new living arrangements can be traced directly to changing values about the individual and the family.[49] Apparently, both boomers and their parents desired greater autonomy, more privacy, and freedom from family roles. Boomers were much more likely to leave home simply to gain independence than to find work or go to school. Parents were willing to subsidize their children's autonomy—although they often welcomed them home again when things didn't work out.

Increases in nonfamily living prior to marriage were coupled with the rise of a new living arrangement: nonmarital cohabitation. In earlier cohorts, living with a partner outside the bonds of marriage was rare, confined mostly to people of lower socioeconomic status who formed consensual unions. For most people, coresidence with a sexual partner was synonymous with marriage. Boomers were the first to depart from this pattern and live in sexual relationships outside of marriage in large numbers.

Cohabitation began among the earliest boomers and diffused rapidly. Among women born between 1945 and 1949 (the first four years of the early-boomer cohort), only 7 percent had cohabited prior to age 25. The corresponding figure for women born between 1960 and 1964, the last four years of the late-boomer cohort, was 37 percent.[50] High levels of cohabitation are one reason the late boomers show such low levels of marriage; the percentage of late-boomer women who have formed unions of any kind is much closer to the percent married among earlier cohorts.[51]

Changes in norms about sexual behavior were quite important in the spread of cohabitation. The stigma once attached to such unions was based on the sexual activity it indicated. Once this stigma was removed, or at least reduced, cohabitation became more acceptable. Some scholars have argued that cohabitation also served as a step in the courtship process. With marriage an increasingly risky proposition, boomer couples could use cohabitation to test out their compatibility prior to marriage.

These new living arrangements challenge the family because they are ways of living outside the boundaries of traditional family roles. But they also have taken on some of the characteristics of families. Both household formation and living with a sexual partner were once restricted to marriage. Thus the boundaries between family and nonfamily are blurring—or, as some would say, are being redefined.

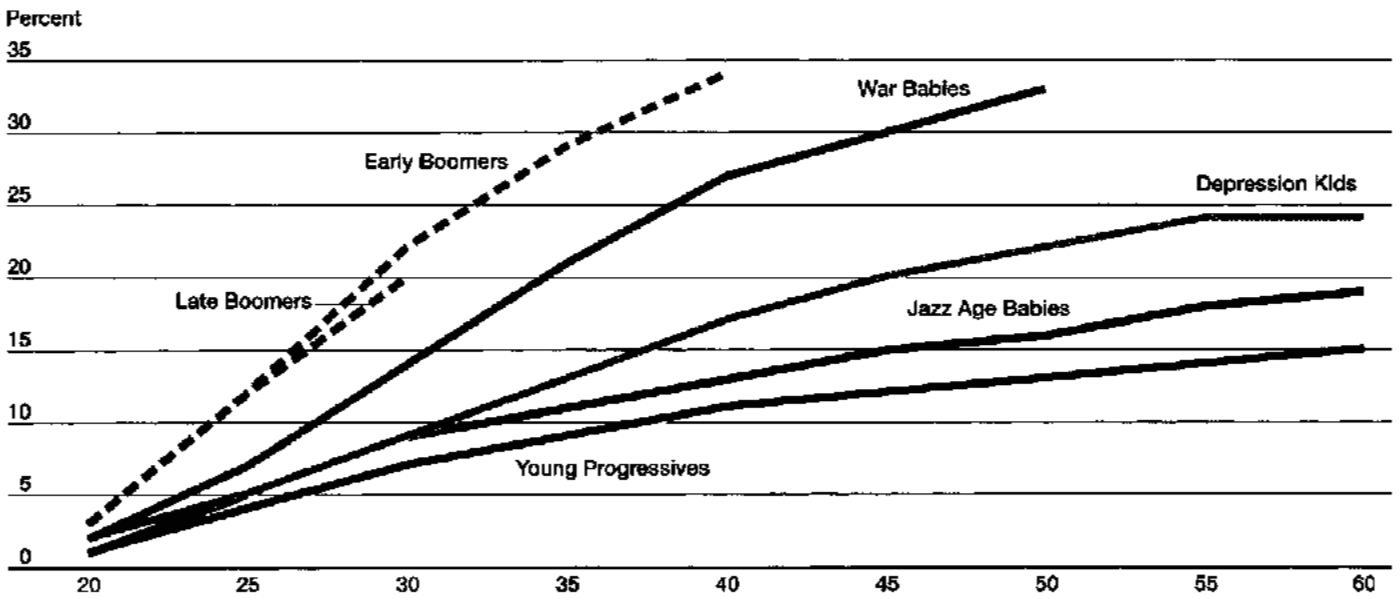
Forming an independent household while unmarried is normative in the contemporary transition to adulthood.[52] Cohabiting with a partner is now so common that we forget how stigmatized it once was. Both of these behaviors originated largely in the boomer cohorts.

## The Rise of Serial Monogamy

Boomers sought a different kind of marriage and married later than their counterparts in earlier cohorts. Once formed, their marriages were less stable than the marriages of members of earlier cohorts. The high incidence of divorce among boomers is reflected in Figure 4. At every age, a higher fraction of both early- and late-boomer women have been divorced than women in previous cohorts.

High levels of divorce among boomers are rooted in the same economic and cultural forces that changed the nature and timing of marriage and living arrangements. Women's economic emancipation and new ideas about self-fulfillment meant that couples were more willing to

*Figure 4*
**PERCENT OF WOMEN EVER DIVORCED BY AGE AND COHORT**




Sources: Authors' estimates based on the Surveys of Income and Program Participation, 1986 and 1996.

end a marriage that wasn't working well. To the extent that the basis of marriage shifted more toward an intense emotional tie, the always-subjective standard for marital success may have risen.

However, in contrast to patterns of marriage and living arrangements, the boomers were not in the vanguard of increases in divorce. The War Babies brought the sharpest increase in divorce rates over earlier cohorts. The War Babies were at risk for divorce in the late 1960s, just when the long-term secular increase spiked sharply upward.[53]

Thus, boomers watched as their older brothers and sisters experienced historically high rates of marital disruption. This likely reinforced an attachment to the labor market among boomer women, who could not be sure that their marriages would last. Overall, high levels of divorce increased uncertainty about marriage among boomers. The trend toward cohabitation may have strengthened, as it became a "trial run" for marriage. By the time the boomers had married, attitudes had shifted in the direction of greater tolerance of divorce leading them to divorce at even higher rates.

Some claim that increases in divorce signal abandonment of marriage among boomers. The best evidence against this is the relatively high level of remarriage. In fact, by age 30, 12 percent of late-boomer women have been married twice. Remarriage existed in earlier cohorts, but a much higher fraction of these remarriages occurred following the death of a spouse rather than divorce.

The pattern of high levels of divorce combined with fairly common remarriage has been called "serial monogamy." Although this pattern did not emerge among the boomers, they reinforced it and by their large numbers made it more visible. Moreover, serial monogamy is the outgrowth of the same forces that shaped other aspects of boomer life.

## The Variable Experience of Parenthood

Parenthood stands with marriage at the core of American family life. Accordingly, changes in childbearing and childrearing were also an important factor in the boomers' transformation of family life. The same historical and social forces that shaped boomer marriage patterns led to greater variation in the experience of parenthood.

Boomer women bore fewer children than women in earlier cohorts (see Table 9, page 243). Late-boomer women have not all reached age 45, which by convention is considered the end of the childbearing years. If many of these women have children, their completed fertility may rise a bit. But a surge above the level of the early boomers seems unlikely. Interestingly, the proportion of boomer women who remained childless is comparable to levels seen among the earliest cohorts

*Table 9*
**FERTILITY INDICATORS FOR U.S. WOMEN BY COHORT**

| Fertility indicators | Young Progressives* | Jazz Age Babies | Depression Kids | War Babies | Early Boomers | Late Boomers |
|---|---|---|---|---|---|---|
| Average number of children | 2.4 | 2.6 | 3.1 | 2.6 | 1.9 | 1.8 |
| Childless (%) | 19 | 16 | 11 | 12 | 17 | 22 |
| With four or more children (%) | 22 | 26 | 35 | 24 | 12 | 10 |
| First birth at age 19 or younger (%) | — | — | 23 | 29 | 25 | 22 |
| First birth at age 30 or older (%) | — | — | 8 | 8 | 15 | 18 |
| First birth while unmarried (%) | — | — | 12 | 15 | 18 | 24 |

— Not available.

* Ever-married women only.

Sources: Authors' estimates using the Integrated Public Use Microdata Series (IPUMS), 2003; and the Surveys of Income and Program Participation, 1986, 1996, and 2001.

(remember that the Jazz Age Babies and Depression Kids, the cohorts that produced the baby boom, had historically low rates of childlessness). In addition, the proportion of women with large families declined dramatically among boomers. In this respect at least, boomer women are less diverse than women in earlier cohorts: Among women who have children, most have one or two.[54]

This apparent homogeneity masks important change and variation. The way these fewer births are distributed over women's lifetimes and the circumstances under which children are born diversified greatly in the boomer cohorts. These trends are boomers' main contributions to fertility change.

First, there is much greater diversity among boomers in the age at which women become mothers for the first time. Boomer women have births early, on time, and late.[55] Although the percentage of women having their first birth as teenagers dropped in the boomer cohorts, nearly a quarter had their first child as a teen. At the same time, a much higher proportion waited until their 30s to begin childbearing. Among the late boomers, this figure may well increase since not all of them are past childbearing age.

Second, the fraction of births to unmarried women is higher in the boomer cohorts. Nonmarital childbearing increased beginning with the War Babies, but the increase was particularly sharp among the late boomers. Thus, for many boomer women, marriage and childbearing are not coincident. Many of these births are to women in cohabiting unions.[56] But since cohabiting unions are less stable, these women may well end up raising children on their own.

Of course, nonmarital childbearing is not the only source of single-parent families among boomers.[57] High divorce rates have many parents raising children more or less alone. Since women were more likely to receive custody of children in divorce settlements, many of these single parents are women. The challenges of single parenthood, including relationships with the noncustodial or joint-custody parent, remain an important part of boomer parenthood. Remarriage, which brings a stepparent and often stepchildren, has added complexity.

Finally, boomer women were more likely to work during pregnancy and to return to work within a year after giving birth, so they were much more likely to combine the roles of mother to young children and paid worker. This new pattern paralleled an increase in "involved fathering" on the part of some late-boomer men. But as with sharing the housework, changes in fathering have been uneven and there is great variation in fathers' roles from family to family.[58]

Changes in childbearing reflect both long-term trends and the boomers' reconfiguration of the life course in response to structural change. The decline in numbers is a continuation of the transition to low fertility interrupted by the baby boom, although more efficient methods of contraception led to new lows in fertility among the boomers. Variations in the timing of parenthood are directly related to women's patterns of education, work, and marriage. On average, women's higher levels of education and increased commitment to the workforce delayed childbearing just as they delayed marriage. This trend was also aided by the new methods of contraception that gave women greater flexibility in the timing of births. The heterogeneity in the timing of childbirth in boomer women's lives reflected variation in the ways they fit childbearing around their education and work. Increases in nonmarital childbearing reflected longer periods spent unmarried and sexually active, increasing the likelihood of premarital births even with better methods of contraception. Most of the increase in nonmarital fertility among boomers can be traced to the higher number of women at risk of such a birth, not to increased rates of nonmarital fertility. Boomer women were much less likely to marry after a premarital conception than women in earlier cohorts.

*Table 10*

**LIVING ARRANGEMENTS BY COHORT**

| | Ages 44–53 | | | | | Ages 35–43 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Living arrangements | Young Progressives 1960 | Jazz Age Babies 1970 | Depression Kids 1980 | War Babies 1990 | Early Boomers 2000 | Jazz Age Babies 1960 | Depression Kids 1970 | War Babies 1980 | Early Boomers 1990 | Late Boomers 2000 |
| With spouse* | 69 | 72 | 71 | 66 | 61 | 75 | 76 | 72 | 65 | 59 |
| With spouse and relatives* | 13 | 10 | 8 | 8 | 7 | 10 | 7 | 6 | 5 | 6 |
| Alone | 5 | 5 | 7 | 9 | 11 | 3 | 3 | 6 | 8 | 9 |
| With children only | 3 | 4 | 5 | 5 | 5 | 2 | 4 | 8 | 6 | 6 |
| With children and others | 3 | 3 | 3 | 5 | 6 | 2 | 2 | 4 | 5 | 6 |
| With relatives* | 6 | 5 | 4 | 4 | 6 | 7 | 5 | 4 | 6 | 8 |
| With nonrelatives | 2 | 1 | 1 | 3 | 4 | 1 | 1 | 2 | 4 | 6 |

* May include children.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

## Many Kinds of Families

Boomers' family experiences have been quite different from the experiences of previous cohorts. In addition, on nearly every dimension the boomers' families are more heterogeneous than families in previous cohorts. Not only are boomers likely to live in family constellations that differ from those of the past, their families are also likely to differ from the families of at least some of their contemporaries.

Table 10 shows the proportion of people in each cohort who were living in different kinds of households in the cross-sectional snapshot of the census. Household structure summarizes patterns of marriage, divorce, cohabitation, and parenthood. For example, later age at marriage combined with the rising incidence of divorce leads to more people living alone. An increasing likelihood that the elderly will stay in their own homes reduces the fraction of multigenerational households. Since living arrangements change with age, we show data for most cohorts at two age ranges, from ages 35 to 43 and ages 44 to 53.

Two patterns appear. First, the diversity of living arrangements is higher in the baby-boom cohorts than in the cohorts preceding them. That is, the percentage in the most common arrangements, living with a spouse with or without children and other relatives, is less common, while the percentage in less common arrangements such as living alone is higher. The increased diversity is noticeable at both ages, suggesting that family diversity extends across the life course and that a smaller proportion of the boomers' lives will be spent in traditional households. Second, the fraction of people living in nonfamily households—alone or with nonrelatives—has risen dramatically in the boomer cohorts. The higher percentage of boomers living with nonrelatives primarily reflects the higher levels of cohabitation among boomers. Although these two patterns are strongest among boomers, and especially late boomers, they appear to have started with the War Baby cohort.

One of the implications of different and more heterogeneous families in the boomer cohorts is a greater variety of family roles and a greater range in family relationships. Change in roles has taken two forms: the redefinition of traditional roles and the creation of new roles. For example, boomer women redefined the role of mother to "working mother" by combining motherhood with work outside the home. Some observers suggest that the role of father is bifurcating into the "good" dads, who are fully involved with their children and are equal partners in maintaining the household, and the "bad" dads, who, as noncustodial parents, are absent from their children's lives.[59] Family change has also brought new roles. Most obviously, the cohabitating relationship has introduced the live-in partner. Divorce has brought ex-spouses and ex-in-laws, and remarriage brings stepchildren.

These new roles are not well defined, so there are no rules for appropriate behaviors and obligations. Consequently, individuals have to adapt in their own ways and they have often been confused by their own lives.[60]

So far, we have described boomer families as a whole. This broad-brush picture conceals great variation in family structure by race, ethnicity, and nativity. The general pattern of increasing diversity over time is true of all groups but Asian immigrants. However, within groups the level and pattern of change for each arrangement vary. For example, foreign-born and U.S.-born Hispanics show no decline in the likelihood of living as part of a married couple in a complex household. This is consistent with research suggesting the greater salience of extended family living in the Hispanic community. Hispanic and Asian immigrants show no increase in the likelihood of living alone. Blacks are especially likely to be living alone with children. These differences are due both to economic constraints and cultural conventions.

# The Bottom Line

The prosperity the boomers experienced in childhood was the culmination of several decades of improvement in the American standard of living, interrupted only by the Great Depression. Income and wealth steadily increased over most of the 20th century, accompanied by a decline in overall inequality until sometime before 1980. Since then, the standard of living has arguably continued to improve, but a reversal in the earlier trend toward equality has occurred. A general pattern of dispersion in earnings, household income, and wealth has dominated the last two decades.[61]

Households are the basic units of economic activity in the United States and thereby serve as a gauge for the standard of living of families. Resource accumulation, consumption, and reproduction activities all occur in the context of the household, and household members produce significant goods and services as well. As such, households are more than addresses and social arrangements; they are complex economic relationships within which individual resources are pooled to manage both the expected and unexpected opportunities and difficulties of daily life.

The economic well-being of households has been a matter of increased concern among policymakers over the past four decades as the War Babies and baby boomers have aged. Changes in household arrangements have increased this preoccupation, since families have changed from the once predominant married male-breadwinner form to the current mixed complement of dual earner, single family-headed, and never-married single types. As a result, the incomes, poverty levels, and net worth of households are monitored to take account of the well-being of the nation.

At midlife, the boomers live with an even higher standard of living than their parents. But they also live with more inequality. The inequality is evident in their household incomes, home ownership patterns, and net worth. Their labor market histories contribute to this inequality, but so too do their family histories and current household arrangements.

## The Polarization of Household Income

Household income closely monitors the general day-to-day well-being of individuals and families. It represents the capacity to meet the ordinary and extraordinary needs of household members. After World War II, average household income grew until 2000. But beginning in 1980, inequality in household income increased dramatically. Households in the top fifth of the income distribution have increased their share of aggregate income, while those in the bottom four-fifths have lost ground.[62]

*Table 11*

**Mean and Median Household Income by Cohort, in 1989 dollars**

| Cohort | Year | Mean | Median |
|---|---|---|---|
| **At ages 44–53** | | | |
| Young Progressives | 1960 | $31,473 | $27,264 |
| Jazz Age Babies | 1970 | 44,070 | 38,646 |
| Depression Kids | 1980 | 47,469 | 43,186 |
| War Babies | 1990 | 53,225 | 45,000 |
| Early Boomers | 2000 | 54,593 | 43,310 |
| **At ages 35–43** | | | |
| Early Boomers | 1990 | 48,147 | 41,200 |
| Late Boomers | 2000 | 49,340 | 39,544 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

These trends have held for the boomer cohorts. Median household income (in constant dollars) increased across successive cohorts, including both boomer cohorts (see Table 11). However, household income inequality was higher in the boomer cohorts relative to the War Babies, who up to that point had the highest level of inequality.

Increased income inequality is evident in the difference between cohort mean and median household incomes. As in the case of wages, the level of household income in a population can be measured two different ways. The mean income shows the arithmetic average. The average is sensitive to values at the very high or very low ends. The median income is the point at which half the group has higher income and half the group has lower income. The median is not sensitive to extreme values. Because of the differences in how the mean and median measure income, comparing them shows the degree of income inequality in the population. For example, increases in mean income combined with stability in median income indicate that incomes are increasing at the high end of the income distribution, but the middle point is remaining the same. Thus, a small proportion of high-income households have experienced income growth, but most did not, leading to higher levels of income inequality. This intercohort pattern mirrors the one observed earlier for earnings inequality, since earnings are the principal source for most preretirement households.

These trends in household income have been affected by the diversification of living arrangements and patterns of employment instability described earlier. Dual earner households and single family-headed households are not on level ground for household income attainment. In addition, involuntary job loss or wage decline—even in dual earner households—can depress household income.

*Table 12*
**PERCENT OF AMERICANS IN POVERTY OR AFFLUENCE BY COHORT**

| Cohort | Year | Near poverty | Poverty | Affluence |
|---|---|---|---|---|
| **At ages 44–53** | | | | |
| Young Progressives | 1960 | 17 | 10 | 12 |
| Jazz Age Babies | 1970 | 9 | 6 | 25 |
| Depression Kids | 1980 | 8 | 6 | 33 |
| War Babies | 1990 | 8 | 5 | 40 |
| Early Boomers | 2000 | 9 | 5 | 38 |
| **At ages 35–43** | | | | |
| Early Boomers | 1990 | 9 | 7 | 28 |
| Late Boomers | 2000 | 12 | 7 | 26 |

Note: Near poverty is 150 percent of the poverty threshold. Affluence is 500 percent of the poverty threshold.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

## Rising Affluence and Rising Poverty

The increase in household income inequality among boomers is visible also by examining changes at the extremes of the household income distribution (see Table 12). Poverty and affluence represent these extremes. The U.S. Census measures poverty by matching the total household money income from all sources before taxes to estimates of need based on family size and ages of family members (adjusted annually for inflation). If total household income falls below estimated need, the family is in poverty. Some scholars also examine families who are at or below 150 percent of the poverty threshold and are at high risk of falling into poverty. A common measure of affluence that permits comparisons across cohorts and over time is 500 percent of the poverty level, generally above the 80th percentile of the income distribution.

Poverty rates for people in midlife are generally lower than for the general population. The faces of poverty in the United States are primarily those of young children, the elderly, and disadvantaged ethnic groups. In 2000, the national poverty rate was 11 percent, higher than those for the War Babies and early boomers but lower than that of the late boomers.

The highest rate of poverty and the lowest rate of affluence were experienced at midlife by the Young Progressives: Nearly one in five was officially poor and one in four was near poverty. The discovery of this stark level of poverty across all age groups motivated the War on Poverty and related social programs such as Medicare and Medicaid. The effect was that, a decade later, poverty rates had fallen to half their 1960 levels. Poverty levels then remained relatively constant across cohorts.

However, between ages 35 and 44, the late boomers are significantly more at risk of poverty and near poverty than the three previous cohorts. In fact, the late boomers have the highest levels of poverty of any cohort since the Young Progressives. One in 10 late boomers is in poverty at middle age, while two in 10 are in poverty or at risk of poverty.

Household incomes that reach affluent levels (500 percent above the poverty threshold) are most likely to occur in mature households, which have benefited from career wage growth. These levels increased across 20th-century cohorts, peaked with the War Babies, but fell somewhat among the early boomers. Affluence increased by 10 percentage points among the early boomers between 1990 and 2000. Meanwhile, late boomers had slightly lower affluence levels than early boomers at the same ages—coupled with higher poverty rates.

## Ethnic Classes and Power Couples

Household income inequality in the boomer cohorts is crosscut by income inequality between subgroups of boomers. We see the persistence of income inequality by race, ethnicity, and nativity. These differences are so entrenched that in effect they create ethnic classes. In addition, however, a new basis for inequality has emerged among boomers: the combination of education and marital status.

Earlier we showed a divergence across cohorts in the likelihood of college completion by race/ethnicity and nativity. We saw persistent differences by race, ethnicity, and nativity in occupational mobility and wage growth. Household structure also varies among ethnic groups, with more single family heads among blacks and more married couples among U.S.-born Asians. These differences have produced enduring ethnic classes across cohorts. The cumulative effects of differences in education, occupation, and household structure have maintained the relative advantage in household income of non-Hispanic white and Asian groups compared with other groups. These intractable inequalities underlie some of the increased inequality in household income in the boomer cohorts.

Table 13 (page 247) reports household incomes of race, ethnic, and nativity groups as a percent of non-Hispanic white household incomes. The patterns of difference are diverse and dramatic. Blacks' household incomes have been about two-thirds of non-Hispanic whites since the War Babies, clearly showing little gain. On the other hand, U.S.-born Hispanics have gained relative to whites, especially in the boomer cohorts. U.S.-born Hispanic households have four-fifths the incomes of white households. Hispanic immigrants have lost ground across cohorts and are at the level of blacks. Asians have fared much better. U.S.-born Asians' household incomes exceed whites, while foreign-born Asians achieved parity with whites beginning with the Depression Kids.

*Table 13*

**HOUSEHOLD INCOME OF SELECTED RACE AND NATIVITY GROUPS COMPARED WITH NON-HISPANIC WHITE INCOME, BY COHORT**

| | | Household income as percent of non-Hispanic white household income | | | | |
|---|---|---|---|---|---|---|
| Cohort | Year* | U.S-born Blacks | U.S-born Hispanics | Foreign-born Hispanics | U.S.-born Asians | Foreign-born Asians |
| Jazz Age Babies | 1970 | 59 | 71 | 71 | 115 | 87 |
| Depression Kids | 1980 | 63 | 72 | 70 | 118 | 95 |
| War Babies | 1990 | 67 | 70 | 69 | 126 | 104 |
| Early Boomers | 2000 | 66 | 77 | 66 | 121 | 99 |
| Late Boomers | 2000 | 68 | 80 | 66 | 124 | 104 |

* Cohort members were ages 44–53 in the year given, except for late boomers, who were ages 35–43 in 2000.

Source: Authors' estimates using the Integrated Public Use Microdata Series (IPUMS), 2003.

The boomer cohorts came of age after the changes initiated by the Civil Rights Act. However, we see little evidence of the equalization intended by this legislation in household income with respect to race. Blacks in the boomer cohorts are no better off relative to whites than their parents and grandparents.

Ethnic classes in the baby-boom cohorts are not new. What is new is a pattern of income inequality by education and marital status. Households with multiple earners are at a significant advantage in household income. If both of these earners have college degrees, the advantage is of course increased. Table 14 reports percentage differences in income between marital groups by educational levels. With the exception of the Depression Kids, the divergence of household income by marital status and education is pronounced. These inequalities are bolstered by the high likelihood that married couples will have the same level of education.[63] Moreover, in the boomer cohorts, marriage is more likely and perhaps more stable among college-educated people.[64] Together these trends signal an important shift in the boomer cohorts: Marriage is becoming a class status as well as a family status.

## A Home of One's Own

In the United States, owning one's home is a widely shared symbol of social and material success. Surveys show that the overwhelming majority of Americans desire to own their own homes. This remarkable consensus on the importance of property ownership reflects deep cultural values of individualism and self-sufficiency. Homeownership is key to financial well-being; home equity commonly accounts for the largest share of one's net worth.[65] Beyond financial advantages, ownership benefits the family and children by anchoring family lifestyle. Ownership has positive effects on the community through increased social integration and civic engagement.[66]

In keeping with the importance of homeownership to Americans, rates of ownership are higher in the United States than those in most other developed

*Table 14*

**DIFFERENCES IN HOUSEHOLD INCOME BETWEEN HIGH SCHOOL AND COLLEGE GRADUATES, BY MARITAL STATUS AND COHORT**

| | Ages 44–53 | | | | | Ages 35–43 | |
|---|---|---|---|---|---|---|---|
| Education and marital status | Young Progressives 1960 | Jazz Age Babies 1970 | Depression Kids 1980 | War Babies 1990 | Early Boomers 2000 | Early Boomers 1990 | Late Boomers 2000 |
| Married college graduates' income as a percentage of married high school graduates' income | 149 | 149 | 141 | 159 | 168 | 153 | 167 |
| Unmarried college graduates' income as a percentage of unmarried high school graduates' income | 138 | 155 | 152 | 164 | 168 | 158 | 165 |
| Married college graduates' income as a percentage of unmarried college graduates' income | 165 | 164 | 171 | 176 | 179 | 157 | 158 |

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

*Table 15*

**PERCENT OF AMERICANS WHO OWN THEIR HOMES, BY AGE GROUP AND COHORT**

| Cohort | Ages 35–43 | Ages 44–53 |
|---|---|---|
| Young Progressives | — | 64 |
| Jazz Age Babies | 62 | 71 |
| Depression Kids | 68 | 77 |
| War Babies | 71 | 74 |
| Early Boomers | 64 | 71 |
| Late Boomers | 61 | — |

— Not available.

Source: Authors' calculations using the Integrated Public Use Microdata Series (IPUMS), 2003.

nations. In fact, homeownership is one of the post-World War II success stories in the United States. Home ownership rates increased dramatically between 1940 and 1960. These increases were due in part to the favorable economic situation. But they also reflected a policy environment supportive of ownership, including programs that subsidized the construction of suburban single-family homes, favorable tax treatment for homeowners, and institutions designed to facilitate mortgage lending.[67]

The Young Progressives, Jazz Age Babies, and Depression Kids capitalized on this environment. The prevalence of homeownership increased in each of these cohorts (see Table 15). However, this favorable trend ended with the War Babies, who were less likely to be owners than the Depression Kids were at the same age. Early and late boomers are even less likely to be homeowners.

Some of the decline in homeownership can be traced to the characteristics of the boomers. A higher percentage of them are minorities and immigrants. Despite increases in the overall likelihood of ownership, significant disparities reflect both economic inequality and outright discrimination in housing markets.[68] However, this downward trend is visible in all racial and ethnic groups, including non-Hispanic whites.

Shifts in family composition also account for some of the decline. Married couples are most likely to be homeowners. Delayed marriage, cohabitation, and divorce (where at least one former partner loses the house), mean that the boomer cohorts are more likely to be living in situations not associated with homeownership.

A final explanation for the boomer shortfall in ownership is that the same difficult economic circumstances that have increased income inequality have affected wealth accumulation. Since the mid-1970s, prospective homeowners have been caught between stagnant wages on one side and rising housing prices on the other. Increases in housing costs have come from both housing price inflation, which some scholars have argued is due to the large baby-boom cohorts entering the housing market, and an increase in the overall quality of the housing stock.[69] Lower-income people have thus effectively been priced out of the ownership market.[70] The downward trend in ownership rates between the Depression Kids and late boomers is strongest among people with either high school or less than high school educations (29 percent and 17 percent, respectively). The decline is modest for college-educated people (2 percent). Education differentials in home ownership have therefore widened considerably. Among the Depression Kids, the high school graduate ownership rate was 2 percent lower than the college graduate rate. Among late boomers, the comparable figure is 17 percent.

The effects of new family patterns, stagnating wages, and housing price inflation have combined to increase inequality in home ownership in the boomer cohorts. The decline in homeownership signals a new era in which a significant proportion of the population is shut out of the American Dream.

## Unequal Fortunes

Considerable research using sources other than census data has considered how much wealth baby boomers accumulated over their lifetimes. Some studies have found that, on average, the boomers have been wealthier at younger ages (ages 25 to 34 and 35 to 44) than their parents were at those ages. Early boomers have also been compared to current retirees and found to be relatively better off prior to retirement than the currently retired were. The conclusions from these studies are that the boomers are not—and probably will not be in old age—worse off than their parents.[71] Other studies have found that boomers are not saving enough for their retirements. These cohorts have accumulated more wealth over their lifetimes with high average levels of consumption. However, their savings behavior has not included as much traditional savings in bank accounts but more wealth accumulation in home equity and pension accounts—although these are unequally distributed in these cohorts. Moreover, their high levels of secured and unsecured debt raise some concerns about whether they are prepared for retirement.

The decennial census does not collect data that allow comparison of wealth across cohorts, and no other data source is available to compare all cohorts of interest in this study. But other surveys can provide a picture of the wealth of boomer cohorts. We used the Surveys of Income and Program Participation in 1986 and 1996 to review boomer wealth at midlife (see Table 16, page 249).

Table 16 summarizes the average levels of selected components of wealth and debt and the degree of wealth inequality among the boomer cohorts. At ages 31 to 40, the older cohort was more affluent (in constant dollars) than the younger cohort, having both higher

*Table 16*

**WEALTH AND DEBT OF TWO BABY-BOOM COHORTS, 1986 AND 1996**

| | Ages 31–40 | | | | | | Ages 41–50 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Early Boomers | | | Late Boomers | | | Early Boomers | | |
| Indicators of wealth | Mean | Median | Gini inequality index* | Mean | Median | Gini inequality index* | Mean | Median | Gini inequality index* |
| **Total net worth, in 1989 dollars** | $68,877 | $34,269 | 0.66 | $52,719 | $15,799 | 0.78 | $104,623 | $43,195 | 0.74 |
| Total wealth | 72,532 | 37,703 | 0.63 | 59,911 | 20,634 | 0.74 | 109,406 | 47,396 | 0.70 |
| Total debt | 42,929 | 23,587 | 0.61 | 62,136 | 37,224 | 0.65 | 44,697 | 19,800 | 0.66 |
| **Selected sources of wealth** | | | | | | | | | |
| Home equity | $34,048 | $17,010 | 0.66 | $25,594 | $13,000 | 0.71 | $41,546 | $23,760 | 0.67 |
| Stock equity** | 3,109 | 0 | 0.96 | 3,626 | 0 | 0.97 | 26,960 | 0 | 0.95 |
| Other savings | 7,839 | 1,133 | 0.80 | 6,148 | 367 | 0.86 | 13,293 | 1,077 | 0.85 |

* Gini coefficients index the degree of inequality in the distribution of wealth: 0 represents no inequality, while 1 represents maximum inequality. The Gini coefficients exclude people who do not have any of the asset in question.

** Excludes pension plan stock investments. Between 18 percent and 27 percent of cohort members owned stocks.

Source: Authors' calculations using the Surveys of Income and Program Participation, 1986 and 1996.

levels of wealth and lower levels of debt. The median net worth of early boomers in their 30s was almost twice that of late boomers. Early-boomers' assets exceed late-boomers' assets with the exception of average equity in stocks.

Late boomers display higher levels of inequality. The inequality is first evident in the difference between mean and median wealth levels, which show (as in the cases of earnings and household income presented earlier) that wealth is highly concentrated above the median in these cohorts, and especially among the younger one. Inequality is also measured by Gini coefficients, which index the degree of inequality in the distribution of wealth: zero represents no inequality, while 1 represents maximum inequality. The late boomers are more unequal in wealth, net worth, and home equity.

Finally, when we compare the early boomers over 10 years between 1986 and 1996, we see that inequality has increased among them. Average wealth and net worth have increased for the boomers and debt has declined. But inequality in wealth and net worth have increased.

## The Top Takes All

The highly skewed distribution of wealth in the United States is well established.[72] The most recent findings (2001) using the Survey of Consumer Finances' comprehensive estimates of wealth are that the top 1 percent of the population held one-third of total wealth; the next 9 percent in the highest decile held one-third; and the remaining 90 percent of the population held one-third.[73] Wealth distributions in boomer cohorts are less highly skewed but nevertheless highly unequal. Based on our analyses using the Surveys of Income and Program Participation, the top 10 percent of early boomers hold 54 percent of total cohort wealth in 1996, and the top 10 percent of late boomers hold 59 percent of total cohort wealth. In both cohorts nearly all wealth (at or over 95 percent) is held by those above the medians of the respective wealth distributions.

In sum, the boomer cohorts have on average higher standards of living than earlier cohorts. However, these averages conceal high levels of economic inequality, levels higher than those in the cohorts immediately preceding them. These inequalities reflect the accumulation of education, work, and family histories. The late boomers exhibit more inequality because their journey through the last three decades has been somewhat more treacherous in the labor market and more heterogeneous in family life. The extent to which the economic highs and lows of the 1990s will have permanent effects on boomer wealth levels is yet to be determined. But we can be certain that heterogeneity and inequality will follow them.

# WHAT'S AHEAD

We have called the baby-boom cohorts pivotal because, while their lives are rooted in the past, in most respects they point toward the future. The boomers inherited a society with a strong tradition of universal education and a modern industrial economy. Most grew up in traditional breadwinner families. As they grew up they encountered structural changes that transformed the economy, civil society, and culture.

Their choices negotiated between traditions from the past and the volatile present. As they responded to new circumstances, boomers redirected social change. More than any other cohort, they represent the transition from an old America to a new America.

As pivotal cohorts, the boomers show continuities with past cohorts, but also many discontinuities. On average, they received more education than prior cohorts; they were more likely to work in technical or service jobs; and they were more likely to marry late, divorce, and have few children. But these averages conceal great variation. In almost every respect, the boomer cohorts are more heterogeneous than prior cohorts and they are highly unequal in economic status.

Although the boomers are still in their prime working years, their later years are visible on the horizon. The prospect of the baby-boom cohorts entering later life has raised concerns among academics, policymakers, and the public. Most of this concern is based on the sheer size of the boomer cohorts. Just as the baby boom once crowded public schools, some observers caution that they will overwhelm public programs for the elderly, notably Social Security and Medicare. Others warn of a tremendous impact of aging boomers on the health care system, and fear that their long-term care will strain social and familial resources. Although the aging of the baby boom should lead to vibrant markets for products for the elderly, some marketers dread the boomers' exit from the high-income, high-spending midlife years. Other analysts predict declines in American productivity as retiring boomers shrink the labor force. Some commentators even worry that the withdrawal of the boomers from housing and equity markets will cause a meltdown in housing and stock prices.

The impact of the aging baby boom depends greatly on the current circumstances and future choices of the boomers themselves. As we have seen, the baby-boom cohorts enter old age with life histories that differ markedly from those of current elderly. Boomer men and women have worked longer and many plan to work later than earlier cohorts. Most boomers will confront the disabilities associated with aging later in their lives than earlier cohorts. And their diverse family histories and current living arrangements raise more uncertainties about the patterns of their lives in old age. The boomers have surprised us before. Will they surprise us again? Given these differences, projections based on size alone are not likely to be helpful. Indeed, the variability in the boomer cohorts that we have discovered promises that generalizations are likely to be misleading.

Based on our review of the boomers lives and times, what can we add to the debate about the impact of aging boomers? On the one hand, the boomers' status at midlife provides a rough map to their future because the life course is sequentially dependent: Later events and statuses are conditional on earlier events and statuses. Consequently, their old age will reflect the accumulation of experiences. For example, their marital histories will shape their family relationships in later life. Similarly, their education and earnings histories will be an important determinant of their economic well-being. We also know where the boomers are continuous and where they are discontinuous with prior cohorts. To the extent that the boomers are continuous with past cohorts, differences between the boomers and current elderly will be a matter of degree. The experience of current elderly, and especially the experience of the War Babies, can provide useful clues about what to expect from the boomers.

On the other hand, reviewing the history of the baby boom has demonstrated the tremendous flexibility of individual biography. For example, the baby boom was itself a response to historical conditions. Their lives unfolded as responses to contemporaneous changes. At midlife, their most recent experiences have included the 1990s economic boom and bust, the War on Terror, and continuing technological change. How these experiences and experiences to come will bear upon their futures is not yet clear. Since we cannot predict historical change, conclusions about the future of the baby boom are not wise.

With this caveat, the following is a set of reasonable expectations for the aging of the baby boom.

## The Extension of Midlife

Based on the patterns we observe in their lives to this point, we expect that the boomers will extend midlife well into what used to be considered old age. The organization of their lives has already deviated considerably from what was once considered normative. New roles and differences in the timing of roles have led to new life trajectories that will continue to develop and perhaps move in new directions as they grow old.

### Longer Working Lives

A number of factors point to boomer men and women working later in their lives than previous cohorts. First, they have worked in less hazardous and less physically demanding occupations that have traditionally had later ages of retirement. Second, across all levels of education, their employment histories have been less stable due to labor market changes, which have slowed their progress in saving for retirement. Third, some boomers will continue to work because they are satisfied with their jobs, their incomes, and the lifestyles these afford. Others will continue to work from economic necessity. Finally, a number of structural changes will likely lead to longer work lives among the boomers. Chief among these changes will be disincentives to retire early.

### Complex Family Lives

We have shown the enormous heterogeneity in the boomers' family lives. These family histories suggest that the boomers will extend midlife family roles and relationships beyond the middle years. For example, boomers who have had children later in life will find that some parental responsibilities, such as coresidence with children or paying for college, will extend to older ages than in previous cohorts. Longer lives among the boomers' parents may mean that older boomers will be caring for their very old parents.

### Healthy and Active Lives

The image of old age often includes the disengagement of older people from lifelong interests and activities, implying that old age is a discreet, discontinuous stage. This image may never have been completely true, but among boomers it seems especially unlikely. The combination of better health and heterogeneous lives suggests that boomers will remain actively engaged in all dimensions of their lives and push back the boundaries of old age.

## Golden Years or Tarnished Years?

Our analyses demonstrate the enormous inequalities in the baby-boom cohorts at midlife. These inequalities mean that while some boomers will have a comfortable old age, others will not. The boomers are generally better off than earlier cohorts, but the high dispersion of income and wealth among them will persist into retirement. Also, boomers are generally healthier than earlier cohorts, but health disparities among them will probably lead to diverging trajectories of disability in old age. These inequalities coincide with policy changes that may make things worse.

### Persistent Inequality

Persistent economic inequalities combined with health disparities will mean that the least well off may face higher risks of unemployment and earlier and more protracted declines in health. Economic inequality among the boomers will coincide with policy changes that encourage them to remain at work later, further disadvantaging those who are least advantaged. Early retirement is common among lower-wage and disabled workers. However, the Social Security system has already altered the eligibility rules for the boomers in ways that will penalize earlier retirement and reward later retirement at higher levels than earlier cohorts. Recent increases in the federal deficit have fueled additional concerns over the financial burden of boomer retirees and raised the prospect of further adjustments that will again cut benefits for the boomers. The easiest way to cut benefits is to postpone them. These kinds of adjustments work to increase the relative disadvantage of boomers with lower incomes.

Less-advantaged boomer workers will encounter the same problems that current older workers encounter. Those who retire early become progressively worse off with time, but working later may also be problematic. Unemployment and underemployment are higher for less-skilled older workers; and jobs are low in pay and benefit coverage. Health insurance is becoming more scarce and expensive for older workers who hang on as long as they can until Medicare eligibility. The poorest among them are uninsured and turn to disability coverage under Social Security if possible.

### The Devolution of Risk

Economic and health risks largely devolve on families and individuals and will do so even more in the boomer cohorts. Economic inequality and health disparities have coincided with changes in workplace provisions for pension saving and health insurance over the past two decades. Individuals and their families are increasingly responsible for retirement saving in risky financial markets and for the provision of health care, both through higher out-of-pocket costs and through the personal provision of care.

In this environment, some boomers will do fine, but others will be vulnerable to economic and health risks and to devastating consequences from lack of an adequate safety net. Risks will be highest for people with fewer resources and reserves. However, the importance of family members in sharing risk means that variations in family structure will affect the kinds of safety nets available. For example, much speculation has centered on the old-age prospects for "absent" fathers. Lacking strong bonds with children, many fear that these men will be left alone in old age. Similar issues arise for people who have never married or never had children. New family situations and configurations with ambiguous expectations or strained relations may weaken the family safety net.

Family histories will have an enduring impact well into old age. The oldest old (those 85 and over) are most in need of long-term care and most at risk for poverty. They will be especially vulnerable to variations in the family safety net. These issues will loom particularly large for women, who typically live much longer than men.

## The Challenges of Diversity

More than any cohort before them, the boomers represent the diversification of American society. The boomers differ from each other in the kinds of education they received, the kinds of work they do, and the kinds of families they live in. These patterns are often crosscut by race, ethnicity, and nativity. They culminate in socioeconomic inequality. This diversity will continue to challenge the boomers.

### Making Sense of Lives

The boomers have replaced the traditional life course with a varied set of trajectories. Not only are old rules obsolete, variability in lives means that they have not been replaced with new rules. The boomers lack standards for evaluating success and life satisfaction. Part of their project in midlife and old age will include the creation of these standards.

### Potential Policy Mismatches

Social policy is typically based on assessments of the average experience in the population. Such an approach will be problematic with the boomer cohorts. Their diverse experiences will challenge policymakers to avoid enacting universal policies that create more problems than they solve. For example, health policies built on the assumption that family members are available to care for older people will not fit with the family circumstances of many boomers.

### Different Life Worlds

Differences in life experiences create different life worlds. Life worlds in turn frame identities, values, and allegiances that are transmitted to younger generations. A multiplicity of life worlds can enrich society and promote tolerance and generosity. However, living in separate worlds can also lead to insulation and distance from others. These barriers can undermine social solidarity and lead to mistrust. They can also lead the boomer cohorts to underestimate their common interest to act collectively on their own behalf.

## Epilogue

This report has centered on the experience of the baby boomers, but many of the issues raised as boomer issues are relevant to the entire American society. The best evidence suggests that succeeding cohorts are following patterns set by the boomers. Educational inequality has not abated and may even have increased. The workplace has become even more unpredictable for young workers entering the labor market. Younger cohorts have inherited the family complexity of the boomers. Diversity in the boomer cohort, while pronounced compared with earlier cohorts, is only a taste of what is to come. What is certain is that their past is our past and their future is our future.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