Inequality of Family and Community Characteristics in Relation to Children’s Attainments:

A Review of Trends in Levels of and Inequality in Characteristics and Attainments, and Estimated Relationships between Them

Robert Haveman
Gary Sandefur
Barbara Wolfe
Andrea Voyer

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The increase in family income inequality since the early 1970s is one of the most cited economic changes during this three-decade period. The increase in family income disparities has direct implications for the well-being of the members of families, and it may also have implications for a variety of other social changes. For example, increased family income inequality may contribute to changed levels of a variety of other social variables, such as health status, life expectancy, education attainments (e.g., rates of college-going), governmental fiscal position (e.g., levels of net deficits or surpluses), poverty rates, public spending on social service programs or schooling, crime rates, or participation in civic activities. The increase in family income inequality can also contribute to changes in inequality among families in a variety of other dimensions, such as inequality in housing quality, child care quality, neighborhood services, school expenditures, or leisure time. Few of these linkages between increases in family income inequality and changes in levels and disparities in other important social dimensions have been systematically explored.

In this review, we focus on children and their attainments. We begin with the presumption that the increase in family income inequality will have implications for both the level of children’s attainments and the extent of inequality among children in these attainments. Ultimately, our research project will explore these linkages between the increase in family income inequality and the level and distribution of children’s attainments. We plan to study these relationships by comparing inequality in attainments of a generation of children who confronted relatively low levels of inequality in inputs, relative to the inequality of attainments of a later generation of children who confronted relatively higher levels of inequality in these inputs. We plan to do this both through a cross-sectional analysis in which we include measures of levels of parental inputs, such as income and time, community and state inputs, in terms of levels of inputs and measures of inequality at the neighborhood and state levels of aggregation; and also by exploring the nature of these relationships for two cohorts of children who experienced different levels
of inequality. More specifically, we plan to use the Panel Study of Income Dynamics to explore the adolescent and early adult experiences of individuals who were aged 12–18 in the late 1960s and early 1970s and in their early to late twenties in the late 1970s and early 1980s with those who were aged 12–18 in the late 1980s and early 1990s and in their early to late twenties in the late 1990s. The latter group will be the core focus of our analysis.

To set the stage for this research, we review the available evidence on some of the linkages between family income disparities and the level and disparity of children’s attainments. We adopt an “investment in children” framework for our review. In this framework, the family and the community are viewed as production units that employ real inputs in order to encourage the attainments of children. In Section I, we present a brief discussion of this framework, and the linkages between the level and inequality in the inputs to children and their ultimate attainments. The questions that we pose are the following:

- What is likely to be the effect on the level of children’s attainments if the inequality in the allocation of investments among the children is increased; will the level increase or decrease?
- What is likely to be the effect on the inequality among children in terms of their attainments if the inequality in the allocation of investments among the children is increased; will disparities among children in their attainments increase or decrease?

With respect to the second question, our hypothesis is that as inequality of inputs into children’s attainments increases, the disparities among them in terms of attainments will also increase. The first of the questions is the more difficult about which to hypothesize, and we discuss three possible linkages between changes in the inequality of investments and changes in the average level of children’s attainments.

In Section II, we present a historical perspective on the changes in the level and inequality of family income, and of the source of these changes. Our objective in this discussion is to set our review of the literature on the linkages between family and community inputs to children’s development and the attainments themselves into a broader perspective. Whereas the level of family income grew slowly
during the 1970s and 1980s, the 1990s witnessed robust growth in family income. The level of income inequality among families increased persistently over these three decades, with the greatest increases occurring during the decade of the 1980s. Several factors are viewed as contributing to these trends, including changes in family structure, the growth of earnings inequality, the changing nature of work, increased racial and ethnic diversity among the nation’s families, and shifts in antipoverty policy.

Section III moves from this focus on changes in the level and inequality in family income to trends in both the level and inequality of inputs to children’s attainments, and trends in the level and inequality in the attainments themselves. The inputs into children’s attainments on which we focus are those that a sizable research literature has identified as being most closely related to children’s attainments; in addition to family income itself, these include:

- parental education
- family assets
- family size
- immigrant status
- school quality
- child care quality
- changes in family location during childhood
- family structure

While we are able to identify substantial time trends in the levels of these inputs, virtually no statistical series describes trends in the inequality of those characteristics for which disparities are meaningful.

Similarly, we rely on the research literature for guidance in identifying the most salient indicators of children’s attainments. Four success measures are identified and trends in their levels are also reported:

- teen childbearing
- high school graduation
- years of schooling
The evidence suggests that in most domains the levels of family resources and young adult outcomes have improved over time. This is especially the case for both parental and children’s education. These two trends are, of course, really one trend—that of increasing educational attainment—that characterizes successive cohorts over time. Other trends in the direction of improvement are increases in homeownership, declines in family size, improvements in class size and expenditures per pupil in the public schools, and a significant increase in federal expenditures on children. Also, the teen fertility rate has begun to decrease after increasing in the late 1980s and early 1990s. On the other hand, children are less likely to live with two parents than they were in the past, and they are more likely to be in child care as infants and toddlers. Young adults are doing less well in the labor market now than were young adults in earlier cohorts.

Section IV presents our review of the voluminous recent research that has attempted to establish the existence and the strength of the linkages between family and community inputs and children’s attainments. The objective of this review is to set the basis for our future research plans—namely, to assess the likely effects on the level and inequality in children’s attainments (when they are young adults) of changes in the level and inequality in family and community inputs to children (when they are growing up). As indicated above, our working hypothesis is that an increase in the inequality of both income and other important aspects of the lives and living conditions of children when they are growing up contributes to an increase in the inequality of their attainments when they are young adults.

Our review includes, as a separate document, a series of detailed appendix tables summarizing more than 100 studies of the relationship of family and community investments in children and children’s attainments as young adults. The attainments on which we focus are those indicated above: teen childbearing, high school graduation, years of schooling, and employment, earnings and income.

From our review we have learned that in general, parental education is a significant and positive determinant of children’s attainments; that one’s family’s economic resources are a positive and
significant determinant of years of education, postsecondary schooling (college attendance), and the employment, earnings, and income of the child as a young adult. We also conclude that growing up in a single-parent household or experiencing a parental separation or divorce is significantly associated with the probability of giving birth as a teen and negatively related to the probability of graduating from high school. We also note some evidence that changes in family location during childhood tend to be associated with poorer outcomes as an adult, though this has not been extensively studied.

In terms of aspects that might be thought of as social capital—neighborhood quality and school quality—we find some limited evidence that better quality was associated with better outcomes. For neighborhood quality, the association seemed to run across all four outcomes, while school quality seemed associated significantly only with more years of schooling and high school graduation. For quality of child care, the limited evidence consistently suggests a positive association between child care quality and all four outcomes reviewed, but the studies are small and limited.

In terms of other aspects of a child’s experience, we found evidence of negative associations between having more siblings and outcomes as a young adult, but no consistent evidence of any link between outcomes and immigrant status, although again there is but limited evidence on this family characteristic.

In terms of parental assets or wealth, the few existing studies suggest that more assets are associated with better outcomes across all outcomes we reviewed. Since greater assets are associated with greater ability to purchase more inputs for one’s child, this association is both consistent with an economic model and with the possibility that greater inequality in inputs (wealth) will lead to greater inequality in outcomes.

The patterns revealed by our review are summarized in Table 18, Section III, below.
I. LINKAGES IN THE LEVEL AND INEQUALITY OF INVESTMENTS IN CHILDREN AND CHILDREN’S ATTAINMENTS

Before discussing trends in income and other inputs and before presenting our literature review regarding those investments in children that appear to be most closely related to their attainments as young adults, we present a brief discussion of the linkages between the level and inequality of these investments and children’s attainments. In our discussion of children’s attainments, we adopt a standard economic investment framework: the family and the community are viewed as production units which employ real inputs in order to generate well-being for its members. One of the uses of these inputs is to influence the attainments of the children in the family, reflecting the view that children’s success yields well-being to the parents.

As Becker and Tomes (1979) stated, parents can influence the attainments of their children by making “expenditures on their skills, health, learning motivation, ‘credentials,’ and many other characteristics.” Leibowitz (1974) presented an economic model of this view (see Figure 1). In this model, the genetic endowments of parents are to some extent passed along to children via heredity. These abilities and the education choices of the parents jointly determine the level of family income and the quantity and quality of both time and goods inputs that parents allocate to their children. Parents make decisions about allocating time and goods to their children in conjunction with decisions on the allocation of time and goods to other family priorities. Examples of such inputs to children are nutrition, health care, child care quality, extracurricular activities (e.g., art classes, music classes), reading material in the home, tutors if performance lags, and sanitation. Children’s ability and the levels of parental income and home investments in time and goods determine in part the attainments of their children in terms of schooling, earnings, and the avoidance of potentially dysfunctional fertility choices (e.g., teen nonmarital childbearing).

This general family-based framework can be made more comprehensive by including both the choices made by communities (or government) that influence opportunities available to both children and their parents (the “social investment in children”), and the choices that children make given the
investments in and opportunities available to them. In this framework, communities can employ a wide
diversity of policy instruments (e.g., investments in school and neighborhood quality, changes in family net
income due to taxation policies, moral suasion) in setting the basic environment and opportunities within
which families and children make their constrained choices. Some authors have suggested that by their
teen years, children are also decision makers seeking to make themselves as well off as possible.¹
However, the age at which children begin to weigh the costs and benefits associated with the options
available to them and the care with which they make these calculations varies widely. Further, the
information that children have about the options available to them varies widely as well. Consequently, a
poor decision may be either the result of poor decision-making or bad information.

Consider a society of families with children, in which the families allocate an average level of
investment in a number of inputs to their children. Hence, we can think of a vector of inputs, I, with each
element representing the average investment offered to children. One of these elements may be income,
Y, and we will use it in our discussion. Income can be used by families to buy a variety of things that may
increase the chances that their children will succeed as young adults. Hence, the greater the average level
of Y in this society, the more successful we would expect the children to be.² Hence, if the average level
of Y in the society would increase, we would expect that the attainments of the children in the society
would also increase. However, the society of families will also display variation around the average level
of these investments in inputs. That is, there will be inequality among families in the level of inputs to
children. Again, for purposes of discussion, think of income and the inequality of its distribution.³

¹Inhelder and Piaget (1958) have argued that children’s capacity for understanding the relationship between
behavior and outcomes—the ability to reason in an “if/then” framework—is developed by the age of 13 to 15.

²The level of income may be negatively related to children’s attainments in some of its aspects, however.
For example, if more income means that there will be less parental time for children, a side-effect of increasing
income may be a reduction in some other input. Overall, however, increasing income is expected to increase
children’s attainments.

³The question here relates to the distribution of “permanent” income, and not simply to the intertemporal
variation in income of a particular family.
In this context, the important questions are: What is likely to be the effect on the level of children’s attainments if inequality in the allocation of investments among the children is increased? Will the average level of children’s attainments increase or decrease? Will the inequality among children in their attainments increase or decrease?

Answering the last of these questions is probably the easiest. If the level of investments in children (income) is positively related to their attainments, then inequality in the distribution of children’s attainments is likely to increase if the distribution of investments (income) becomes more unequal.

The difficult question concerns the effect on the average level of children’s attainments if inequality in the distribution of investments (income) increases (holding constant the average level of investment or income). There are, it seems, three possible links between changes in inequality of investments and changes in the average level of children’s attainments.

First, consider a world in which children who are below some absolute threshold in terms of investments have substantially reduced attainments, whereas children with investment levels above this threshold do not gain from increases in investment levels. Additional income, for example, could allow a poor family to purchase a neighborhood environment (or school quality, peers of their children, access to medical care or birth control information) that exceeds a minimum threshold. In this case, an increase in the inequality of investments in children (e.g., increased income inequality) will imply an increase in the number of children with investments below the minimum cutoff, and hence a reduction in the average level of children’s attainments.

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4The absolute poverty line concept may be helpful in thinking about this case. For example, being below the poverty threshold may have serious negative consequences for a family and its children, whereas increases in income above the poverty threshold (or 2–3 times the poverty threshold) may have no payoff.
A second possible link between, say, increases in income inequality and the average level of children’s attainments would exist if the relationship between children’s attainments and investments in them (e.g., income) simply diminishes as the level of investments (income) increases. If this is the case, the average level of children’s attainments could be increased by simply redistributing the constant average level of income (or other investments) from the rich to the poor, that is, by decreasing income inequality.\textsuperscript{5} Children with access to little income would gain a great deal in terms of attainments, while children with access to substantial income would lose little.

A third linkage may come through indirect effects related to levels of investment or income. Consider a situation in which increasing income inequality would lead to decreases in the average level of other investments in children. For example, an increase in income inequality among families could lead to diminished overall public support for children’s schooling. Increasing inequality in the distribution of family income might lead to some schools of very poor quality, which lose teachers and funding, while other schools gain quality teachers and funding. The use by high-income parents of private schools might be such a dynamic interaction. However, increasing income inequality might lead to a societal investment in services to poor families and children. Past history suggests that American society seems to be responsive primarily to severe crises involving the low end of the income distribution. The New Deal and the War on Poverty, for example, developed in response to public awareness of extreme poverty and its consequences and led to the investment of public funds in efforts to assist poor families with children as well as other disadvantaged sectors of society. Growing inequality during the past two decades was not of a sort to spread this kind of alarm and societal response.

Another such linkage might occur through the “purchase” of reduced family stress associated with increased family income, or through the stress created by parental perceptions of the gap in resources

\textsuperscript{5}If the relationship is linear, then there is “no free lunch,” and redistribution toward the poor might not improve average young adult outcomes.
between them and other families related to substantial income inequality. Through such linkages, an increase in income inequality might lead to decreases in the average level of investments of other forms in children, and hence a decrease in overall children’s attainments.

Using this type of model along with the trends in income and inputs and the family and community characteristics and children’s attainments identified in the literature review, our future research will employ longitudinal data from one of the most widely used surveys, the PSID, to estimate a model of the relationship between the family and community characteristics that we have identified and children’s attainments when they become young adults. These estimated relationships will enable us to study the effects of increased inequality in family and community characteristics on inequality among children in their attainments. We will then use these estimated relationships to construct a consistent framework to systematically explore the potential effects of changes in inequality in these family and community factors on inequality in children’s attainments.

II. TRENDS IN OVERALL AND RACIAL INCOME AND POVERTY: A HISTORICAL PERSPECTIVE

The increase in income inequality that motivates this study is related to changes in income poverty, in that increases in income inequality tend both to directly increase the number of households with income below a certain cutoff level and indirectly work to offset other factors (e.g., policy measures) that may reduce poverty.

A great deal of research has been undertaken to document the changes in income inequality in the United States and to identify the causes of this increasing disparity. In this section, we first summarize the trends in income levels, income inequality, and poverty, and then place these developments in historical perspective.

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6Mayer (1997) makes a distinction between an investment model and a good-parent model. In the investment model, parents invest time and money in their children. Income is important for “what it buys.” In the good-parent model, parental stress related to family income plays the key role in influencing children.
A. Family Income Trends

Table 1 contains the mean and median incomes for families with at least one child under 18 for the period 1974 through 1999. Between 1974 and 1999, the median income in 1999 dollars of families with at least one child under 18 increased from $43,351 to $47,949. Most of this increase took place in the late 1990s. During much of the 1980s and the early 1990s, median income of these families with children was actually lower than in 1974.

In 1999, the median income of white families with children was $51,613, as compared to $27,778 for black families with children and $30,979 for Hispanic families with children. Changes in racial and ethnic inequality are revealed in measures of changes in the relative levels of white, black, and Hispanic family income over time. The data in Table 1 permit this calculation, but these data go back only to 1987. Between 1987 and 1999, the ratio of black to white income remained constant at around .60, while the ratio of Hispanic to white income declined from .64 to .61. Immigration probably played a significant role in the change in the ratio of Hispanic to white income.

B. Trends in Family Income Inequality

A substantial body of research has examined trends in inequality in family resources. One indicator of this inequality is the ratio of income to the poverty line at different quintiles of the income distribution for U.S. families with children under age 18. Between 1967 and 1994 the ratio for all families with children increased from 2.40 to 3.28. However, the ratio for the highest quintile increased from 4.77 to 7.14, while the ratio for the lowest quintile actually decreased from .74 to .66 (U.S. Department of Health and Human Services, 1998). Obviously, the gap between the highest and lowest quintiles widened considerably during this period.

In Table 2, we present the trend in family income inequality in the United States by racial group from 1973 to 1998. The upward trend in income inequality is seen clearly in these series; within each
racial group income inequality increased over these 25 years. The bulk of the increase in concentrated in the period after about 1978 and before the early 1990s.

C. Trends in U.S. Poverty

The declaration of the War on Poverty came during a long period of postwar economic growth, with rising productivity and wages. In its aftermath, much progress was quickly achieved—the official poverty rate for all persons fell from 17.3 percent in 1965 to 11.1 percent in 1973. The elderly poverty rate fell more rapidly, from about 30 percent to 15 percent over the same period. See Figure 2.

Since 1973, however, the official poverty rate for all persons has always exceeded 11 percent. While the elderly poverty rate continued falling through the 1970s, the children’s rate and that for prime-aged adults drifted up over the period. In the early 1980s, the most severe recession since the 1930s raised the overall poverty rate to about 15 percent and the child poverty rate to more than 20 percent. Although the recovery of the 1980s was a long one, the real wages of low- and medium-skilled males continued the erosion that had begun in the mid-1970s, and inequality rose because only incomes at the top of the distribution increased. The poverty rate fell slowly, but it remained above 13 percent for the rest of the 1980s. The children’s poverty rate remained stalled at over 20 percent until the mid-1990s.

During the recession of the early 1990s, the overall poverty rate rose, approaching 15 percent in 1993. By the mid-1990s the elderly poverty rate had fallen to about 10 percent, below that of working-age people. During the prolonged expansion of the 1990s, the overall poverty rate declined, reaching 11.3 percent in 2000, the last year for which data are available, and the children’s poverty rate fell to 16.2 percent. These declines were the first noticeable successes against poverty since the gains of the early 1970s.

Table 3 shows the trend in the children’s poverty rate over the 1980 through 1998 period. The percentage of children residing in families with incomes below the poverty line remained relatively constant, between 18 and 22 percent, during the years 1980 through 1996. This percentage dropped from 20 percent in 1996 to 18 percent in 1998, and fell again at the end of the decade to 16.2 percent in the
year 2000 (not shown in the table), its lowest rate since 1979. The percentage of children living in extreme poverty (incomes below half the poverty line) ranged between 7 and 9 percent during the same period and declined to 6.5 percent in 2000. There is some evidence that the rate of extreme poverty among mother-only families actually increased during the current expansion (see Primus, Rawlings, Larin, and Porter, 1999).

In 2000, 13 percent of white children, 31 percent of black children, and 28 percent of Hispanic children were in families with incomes below the poverty line. The percentage of black children in poverty is at its historic low point. Children in married-couple families have a real economic advantage: 5 percent of white, 8.4 percent of black, and 21 percent of Hispanic children in such families lived in poverty in 2000.

D. Some Determinants of the Trends in Income Inequality and Poverty

Trends in labor market outcomes, family structure, the diversity of the population, and government policies have affected these trends in income inequality and poverty over the past 40 years. Here we briefly describe some of the most significant of these factors.

*Growing Earnings Inequality and the Changing Nature of Work*

Beginning in the early 1970s—and accelerating after 1980—inequality in male wage rates and earnings increased substantially. Changes in production technologies, the globalization of labor markets, the movement of jobs from central cities to suburbs, and other changes in the labor market made it harder for the poor to earn their way out of poverty. The wage gap between workers with more and less education and skills increased, as did the gap between younger and older workers. Earnings for workers with few skills and little education deteriorated—from the early 1970s until the mid 1990s, the inflation-adjusted hourly wage rate for a man with only a high school degree fell by about 35 percent. In addition, there was a decline in labor force participation and an increase in joblessness, especially among African American men.
Increased “Atomization” of Households

Over the past 40 years, living alone or in family arrangements other than the two-parent family with children has become increasingly common; the growth of mother-only families with children has been a prominent aspect of this change. Apart from the effects of such change on people’s well-being, this trend has a statistical effect that increases the overall poverty rate. Because the official family poverty line varies by family size and reflects economies of scale in living arrangements, it takes more income to support the same set of people if they live in two households than if they live in one. The atomization of households, then, is another factor that contributes to the failure of poverty to fall below the level of the early 1970s.

Increased Immigration and Population Diversity

The demographic composition of the population has also changed dramatically, primarily because of the rapid growth of the foreign-born population. Since 1970, the United States has admitted 20 million immigrants; in addition, several million more illegal immigrants have entered the country. On average, recent immigrants have less education and fewer skills than the native population and than earlier immigrants, and a high proportion of them are officially poor. This trend has also contributed to slow progress against poverty since the early 1970s.

Shifts in Antipoverty Policies

Periodic changes in our understanding of the causes and consequences of poverty led to public policy changes that also affected the official poverty trend. The rapid decrease in the poverty rate during the 1960s and early 1970s resulted from a series of policy changes that greatly increased the value of Social Security retirement benefits, access to cash income support for single parents, and aid to the poorest elderly through the passage of the Supplemental Security Income program. Social Security disability benefits were introduced in the 1950s, and both benefits and coverage from this source also expanded in the aftermath of the War on Poverty.
Although cash assistance for nonworking single mothers has actually eroded since the 1970s, Food Stamps and Medicaid have continued to grow. However, because they provide in-kind, but not cash, benefits, they do not affect the official poverty rate. While the substitution of in-kind for cash benefits to low-income families may not adversely affect their overall well-being, this policy twist has contributed to the stickiness of the official poverty rate.

E. A Summary of Four Decades of Economic and Social Change

During the 1950s to the 1960s Americans enjoyed relative economic prosperity. Since the 1970s, however, the promise of economic prosperity across time and generations has not been fulfilled. During the 1980s inequality increased across age, wealth, education, family status, and race. The elderly saw an increase in incomes and a decrease in poverty between 1971 and 1991. The sources of income have changed in the last couple of decades. While male heads of household contributed more than 80 percent of the family income in 1949, they accounted for just over 60 percent in 1999. Changes in the labor market were central to rising inequality. By 2000, the poverty rate for whites (7.5 percent), Asian and Pacific Islanders (10.8 percent), Hispanics (21.2 percent), and blacks (22.1 percent) had reached or matched their all-time historical lows. Median household income for these groups had reached or matched its all time historical high (Dalaker, 2001).

In the 1960s, Americans seemed convinced that government could combine scientific thinking and additional public resources to solve pressing national problems. The announcement of the War on Poverty made income poverty one of those problems. Income poverty was officially defined and measured, the best minds were gathered to develop proposals to address it, and a legislative agenda was prepared. Those who were not expected to participate in the labor market and those who remained poor even in a growing economy would need access to government assistance even in good economic times. In the 1970s, academics and some federal agencies and policy makers continued to propose variations of a universal, comprehensive income transfer system as a replacement for the many separate welfare programs.
By the end of the 1970s the Food Stamp program—a small effort to stabilize and support farm prices in 1970—had grown to assist all low-income families regardless of their work or marital status. And in 1972 Congress created the Supplemental Security Income program, which provides a minimum annual income for the elderly, blind, and disabled poor. The coverage, benefits, and total spending on health care for the poor also expanded rapidly after the adoption of Medicaid in the mid-1960s.

By the late 1970s, the optimism that government could solve most social problems turned to pessimism that “nothing works.” The Reagan administration set in motion a major change in welfare policy that would eventually radically alter the Aid to Families with Dependent Children program. In 1981, it proposed a program of mandated work for able-bodied welfare recipients. Although this was not legislated, the law that passed encouraged states to establish work—requirement programs and signaled new work expectations for single mothers with children. The generally positive experiences with these programs in many states in the mid-1980s influenced the Family Support Act of 1988 and culminated with the 1996 welfare reform bill. Other major changes in antipoverty policies in the 1990s included further expansion of the Earned Income Tax Credit (EITC).

By the end of the century, antipoverty policies had achieved one vision of the planners of the War on Poverty: a substantial set of income supports were in place for the working poor, regardless of where they lived or their marital status. As a result, a single mother with two children who worked full-time, full-year at the minimum wage would receive an EITC that was about 40 percent of her earnings, bringing her gross income to just about the poverty line. She would also be eligible for increased child care subsidies, and her children would have greater access to subsidized medical care than in the past.

However, the vision of universal support for the nonworking poor was rejected many times. Cash support for the nonworking poor is less available and less generous in 2001 than it was in 1969. The trends in economic prosperity along with a discussion of the evolution of thinking regarding the reasons for growing income inequality are discussed in more detail in Appendix A.
III. TRENDS IN CHILDREN’S ATTAINMENTS, AND THE INPUTS TO ATTAINMENTS

The increase in inequality in the distribution of family income and the persistence of poverty motivate our current study. In Section II we described these trends, offered a brief discussion of some of the primary causes, and set these developments in a historical context. The primary goal of this part of our review is to examine trends in the level of, and inequality in, a variety of other family and community inputs into the process that yields children’s attainments. We also examine trends in these attainments themselves.

A. Trends in Inputs to Children’s Attainments

Although a great deal of information on trends in the levels of family and community inputs exists, we have found very little research on trends in inequality in inputs. For example, information on the educational level of parents over time is readily available, but few researchers have examined inequality in parental education and changes in this inequality over time. The major exceptions to this are variables describing the economic position of the families in which children grow up, namely, the wages, earnings, and income of their parents or families. We discussed trends in the economic positions of families above. A great deal of research has documented growing inequality in each of these. In addition, published data allow us to compare the levels of important parental and family characteristics for racial and ethnic groups.

Below we examine the trends in the levels of eight sets of factors that a sizable research literature has identified as related to children’s outcomes. In addition to family income, three other sets of factors have attracted the most attention among researchers. These are parental education, family structure (see in particular McLanahan and Sandefur, 1994), and family size. These three are clearly related closely to

\[ \text{Equation} \]

\[ \text{Table} \]

\[ \text{Figure} \]

\[ \text{Graph} \]

\[ \text{Diagram} \]

\[ \text{List} \]

7Section IV of this review paper identifies the literature that measures these relationships, and documents the strength and importance of them. Two sets of factors discussed in that section—neighborhood quality and changes in family composition—are not discussed in this section, since we have little information on trends in these over time.
family income. Parental education is a fairly robust indicator of permanent income. Family incomes vary across types of family structure, the most obvious differences being between single-parent and couple-headed families. Family size is considered in calculating poverty status, and the number of children affects the time and goods a family can invest in each child. We discuss what is known about trends in these three sets of factors first. We discuss racial and ethnic inequality in most of the factors as well as overall distributional inequality in family income.

1. Parental Education

Table 4 contains information on the educational attainment of white, black, and Hispanic parents of children aged 6–18 from 1974 through 1999. In 1974, over 27 percent of white mothers had not completed high school. This had declined to around 7 percent in 1999. Among black mothers the decline was from 58 percent to 20 percent, and among Hispanic mothers the decline was from 62 percent to 49 percent. In the case of Hispanics, immigration has played a significant role in retarding the decrease in the prevalence of high school dropouts. Were we to look at figures for the native-born only, we would find a substantially more noticeable improvement in the educational level of Hispanic parents.

If we look at the upper tail of the educational distribution we find that the percentage of white mothers with a bachelor’s degree or higher grew from 9 percent in 1974 to 26 percent in 1999. Among blacks the percentage grew from 4 percent to 14 percent, and among Hispanics the percentage grew from 4 percent to 7 percent. Again, immigration is largely responsible for the smaller increase among Hispanics.

In sum, although parents in these three racial/ethnic groups experienced significant improvement in educational levels over time, by the end of the 20th century a good deal of racial and ethnic inequality in parental education persisted.

2. Female-Headed Family during Childhood

Table 5 contains information on the percentage of children under age 18 who live in four family types (two-parents, single mother, single father, no parent) by race and ethnicity from 1980 through 1999.
For all families, the percentage that lived with two parents decreased from 77 percent in 1980 to 68 percent in 1999. However, the percentage reached 68 in 1996 and has not changed significantly since then.

These figures differ significantly by race. By 1999, 77 percent of non-Hispanic white children were living with two parents relative to 63 percent of Hispanic children and 35 percent of non-Hispanic black children. The figure for black children, however, was at a low of 33 percent in 1994, 1995, and 1996, and has increased slightly since then.

3. Family Size

As Table 6 shows, the number of children in families has declined since 1960. The change is most obvious in the percentage of families with 3 children, which declined from 11 percent of all families to 7 percent in 1999, and in the percentage of children with 4 or more children, which declined from 9 percent in 1960 to 3 percent in 1999. The number of families without children (not on table) increased over this period from 43 percent in 1960 to 52 percent in 1999. In 1999, 10 percent of white families had 3 or more children compared to 13 percent of black families and 18 percent of Hispanic families.

4. Parental Assets

Wolff (2001) points out that in addition to increasing inequality in wages and income, the United States is also characterized by inequality in stock ownership. Not even half of the families in the United States are stockholders, and the top 20 percent of stock-holding families own 90 percent of the stocks.

We have very little information on trends in assets and almost none on trends in inequality in assets, especially for families with children. One measure of assets that is available is homeownership, and we can look at racial inequality in this domain. According to Table 7, about 65 percent of all householders in the United States in 1996 owned a home. Almost 70 percent of whites owned a home in that year, as compared to 44 percent of blacks and 43 percent of Hispanics. Among Hispanics, the percentage owning a home was highest among foreign-born naturalized citizens (57 percent), followed by the native-born (47 percent), and lowest among noncitizens (30 percent).
5. **Immigrant Status**

Between 1970 and 1990, the percentage of children who were foreign-born increased from 1.2 percent to 3.7 percent. In 1990, 1.8 percent of white children, 2.2 percent of black children, 15.8 percent of Hispanic children, and 33.2 percent of Asian children in the United States were foreign-born (U.S. Department of Health and Human Services, 2000).

6. **School Quality**

Two of the most widely used measures of school quality are pupil/teacher ratios and expenditures per pupil. Table 8 contains information on pupil/teacher ratios and Table 9 contains information on expenditures per pupil for the period 1955–1999. As Table 8 shows, the ratio of pupils to teachers in public elementary and secondary schools decreased from 26.9 in 1955 to 16.2 in 1999. This represents a substantial reduction in the ratio. During the same period, Table 9 shows that the current per pupil expenditures in 1999/2000 dollars in public elementary and secondary schools increased from $1,853 in 1955 to $7,086 in 1999. This represents an increase of per pupil expenditures of roughly 280 percent during this period. These figures do not, of course, tell us anything about racial and ethnic or family income differentials in pupil/teacher ratios or expenditures per pupil. Further, they do not tell us how these differentials may have increased or decreased over time.

7. **Child Care Quality**

We have very little data available nationally on the quality of child care, and we have almost nothing on trends in child care. Information from the National Household Education Survey (NHES) in Table 10 shows that the percentage of children aged 3–5 who were enrolled in center-based early childhood care and educational programs increase from 53 percent in 1991 to 59 percent in 1999. In 1999, 59 percent of white, 73 percent of black, and 44 percent of Hispanic children aged 3–5 were in center-based programs.
8. Changes in Family Location during Childhood

Table 11 shows the percentage of children who moved within the last year for the years 1990 through 1999. The number of all children who moved was relatively constant during this period, at 17–18 percent. For white children, the percentage declined from 18 to 16 percent and for Hispanic children, from 25 to 19 percent. For black children, on the other hand, the percentage that had moved within the last year increased from 21 to 23 percent.

B. Trends in Children’s Attainments

1. Teen Childbearing

Table 12 shows the trends in rates of births to adolescents during the 1980 through 1998 period. In 1980, 53 per 1,000 teenage women between ages 15 and 19 gave birth. This number declined slightly to 50.6 in 1984, and then began to increase. It reached a high of 62.1 in 1991. It then began to decline and reached 51.1 in 1998.

These rates vary widely across racial and ethnic groups, although the recent decline in teen childbearing is apparent in all racial and ethnic groups. Among non-Hispanic whites aged 15–19 the birth rate peaked at 43.4 in 1991 and declined to 35.2 in 1998. The rate also peaked among non-Hispanic blacks in 1991 at 118.9 and declined to 88.2 in 1998, a substantial decline, but still well above the white rate for the entire 1980–1998 period. The pattern is the same for American Indians, with a peak of 85 in 1991 and a low of 72.1 in 1998. The teen birth rate for Asians and Hispanics peaked in 1994 at 27.1 and 107.7 respectively and declined to 23.1 for Asians and 93.6 for Hispanics in 1998.

The somewhat different patterns for Asians and Hispanics relative to the other groups are undoubtedly due in part to the impact of immigration on these two groups. Although non-Hispanic blacks had higher teen fertility rates than Hispanics in 1991, by 1998 the Hispanic teen birth rate was the highest among the major racial and ethnic groups in the United States.
2.  *High School Graduation*

Table 13 shows the trend in high school graduation rates for individuals aged 18–24. The top row shows that the percentage of all individuals in this age group who completed high school has remained relatively constant at near 85 percent over the period 1980–1998. However, the information available for the 1988–1998 period shows that the percentage that received an equivalent degree increased from 4 percent to 10 percent, and correspondingly the percentage who received a diploma declined from 80 percent to 75 percent. Obviously, equivalency programs are becoming increasingly important in producing high school graduates. One must take into account the changes in Census Bureau procedures noted in the table in interpreting these trends.

The trends for non-Hispanic whites since 1980 follow this same general pattern, which is what one would expect, since they constitute the large majority of those aged 18–24. The trend for non-Hispanic blacks is somewhat different, however: high school completion among them rose from 75 percent in 1980 to 85 percent in 1995, and then declined to 81 percent in 1998. Both blacks and whites show an increase in the percentage of degrees that are due to equivalency programs.

The numbers for Hispanics show much more year-to-year variation. This is in part due to the smaller numbers of Hispanics in the samples collected in the October Current Population Surveys. The trend is one of a gradual increase from 57 percent in 1980 to percentages in the mid-60s range in the late 1990s. The percentage of degrees due to equivalency programs has increased for Hispanics as well.

3.  *Educational Attainment: Bachelor’s Degrees and Associate’s Degrees*

Table 14 shows the trends in the percentage of those in aged 25–29 that attained a bachelor’s degree from 1980 through 1999, and the percentage of the same age range that attained an associate’s degree from 1992 through 1999. The percentage that attained a bachelor’s degree increased from 26 in 1980 to 32 in 1999. The percentage that attained an associate’s degree increased from 8 in 1992 to 10 in 1999. The percentages for blacks, whites and Hispanics increased during this period. By 1999, over one-third, 36 percent, of non-Hispanic whites had attained a bachelor’s degree, as compared to 17 percent of
non-Hispanic blacks and 14 percent of Hispanics. Roughly equal percentages of the three groups had attained associate’s degrees.

4. Employment and Earnings

Examining trends in young adult employment and earnings over time provides a cautionary tale for our project and for the efforts of others to look at changes over time in inequality in family resources and at how these changes affect inequality in young adult outcomes. The main point is that demographic and macroeconomic changes have had a significant influence on trends in young adult employment and earnings. In order to make sense out of the changing impact of family inequality, we will need to take into account these societal changes as well.

Table 15 provides information on the labor force participation and unemployment rates for men and women aged 25–34 in selected years from 1970 through 1996. The trends for the total population in these ages are somewhat misleading, since they disguise significant male/female differences over time. Between 1970 and 1996 the percentage of men aged 25–34 who were in the labor force declined slightly, from 96.4 to 93.2 percent, while the unemployment rate rose from 3.5 to 4.9 percent. Among women, the labor force participation rate increased dramatically, from 45 to 75.2 percent, while the unemployment rate declined from 5.7 to 5.5 percent.

Table 16 contains information on the weekly earnings of workers in 1979 and 1996. The top row of figures shows that the median weekly earnings of young men aged 25–34 declined from $651 in 1979 to $499 in 1996, a decline of 23.3 percent. Those for young women of these ages declined by only 4.5 percent, but their median weekly earnings remained below those of young men. The table also shows that the changes for this age group between 1979 and 1996 varied significantly across occupational categories. The declines for both men and women were most pronounced in the transportation and laborer categories, while the smallest decline for men was in the professional category. Women experienced a gain of 6.8 percent between 1979 and 1996 in the professional category.
As Schrammel (1998) points out, the fact that young workers in 1996 were not doing as well as young workers in 1979 differs from the projections of some labor market analysts. Some analysts had predicted that the more recent cohorts of young workers—the “baby bust” cohort—would do better than those from the “baby boom” cohort primarily because there would be fewer of them and employers would have to pay more to be competitive. Cohort size did not have the anticipated effect for a number of reasons, including the increasing labor force participation of women and changes in the nature of the economy.

C. Summary of Evidence on Levels and Trends in Family and Community Characteristics and Children’s Attainments

Making sense out of all these trends in levels of inputs and outcomes, overall inequality in inputs and outcomes, and racial and ethnic inequality in inputs and outcomes is a daunting undertaking. The evidence suggests that in most domains the levels of family resources and young adult outcomes have improved over time. This is especially the case for education. Today’s parents are more educated than were yesterday’s parents, and today’s adolescents and young adults are more educated than yesterday’s adolescents and young adults. These two trends are, of course, really one trend—that of increasing educational attainment—that characterizes successive cohorts over time. Other trends in the direction of improvement are increases in homeownership, declines in family size, and improvements in class size and expenditures per pupil in the public schools. Also, the teen fertility rate has begun to decrease after increasing in the late 1980s and early 1990s. On the other hand, children are less likely to live with two parents than they were in the past and they are more likely to be in child care as infants and toddlers. Young adults are doing less well in the labor market now than were young adults in earlier cohorts.

Almost no research has been done on inequality in family resources or young adult outcomes. To the extent that this research has been done, it has focused on family economic resources. The results show clearly that the 1980s and the early through mid-1990s was a period of increasing inequality in family economic resources. However, there were some promising signs in the late 1990s, when the child poverty
rate reached its lowest level since 1979. The poverty rate for black children reached its lowest recorded rate ever.

Tracking *racial and ethnic inequality* over time is complicated by the need to take into account significant Hispanic and Asian immigration during the past few decades. The nature of these populations is changing dramatically owing to immigration, and the well-being of the native-born and foreign-born within these populations differs greatly. In addition, significant differences also occur across groups from different countries of origin. The Asian Indian population is doing much better economically, for example, than the Southeast Asian population. Nonetheless, one can broadly characterize the changes of the past few decades as representing an improvement in the well-being of minority children and a narrowing of the gap between the resources of white families and those of Asian, black, and Hispanic families in the United States. Significant gaps remain, however, in both family resources and outcomes.

**IV. FAMILY AND COMMUNITY CORRELATES OF CHILDREN’S ATTAINMENTS: A REVIEW OF THE LITERATURE ON THESE LINKAGES**

In this section, we review recent research that has attempted to establish the existence and the strength of relationships between family and community inputs and children’s attainments. A review of research at this time is important for two reasons. First, while the literature on this subject was reviewed and critiqued several years ago (Haveman and Wolfe, 1995), substantial additional evidence has been forthcoming in recent years. Our review seeks to bring the earlier review up to date.

Second, in the larger research project in which we are engaged, we plan further analysis on those family and community characteristics that our review reveals to be most closely and systematically related to the level of children’s attainments. Building on the observed increase in family income inequality, our larger project inquires into the possible effects on children’s attainments (when they are young adults) of increased inequality in family and community inputs to children (when they are growing up). As indicated above, our working hypothesis is that an increase in inequality among families in one generation will lead to increased inequality in the next generation of individuals and families. In
particular, we hypothesize that an increase in the inequality of both income and other important aspects of the lives and living conditions of children when they are growing up leads to an increase in the inequality of their attainments when they are young adults.

In this context, then, the purpose of this review is to identify those aspects of children’s environments that appear to be most closely related to their ultimate attainments. Hence, we seek to understand which among the various factors that have been studied appear to have the most persistent and robust (statistically significant) relationship to the attainments of children when they become young adults.

A. Review of Existing Literature

We turn now to our review. We first identify the correlates of children’s success that we will emphasize. These aspects of children, their families, and their communities have been the focus of most of the important studies in this literature. Second, we present the “outcome” variables—the indicators of children’s success—on which our review will focus. As with the correlates, we choose those variables that have been emphasized in the existing literature. Third, we summarize the findings of the voluminous literature in a single table and discuss its findings. This summary rests upon a series of appendix tables contained in a separate document.

B. Factors Related to Success in Young Adulthood

The first step in our review is to identify those factors that appear to be related to success in young adulthood, and whose distribution over time we wish to analyze. On the basis of both the pre-1990 studies that have been reviewed by Haveman and Wolfe (1995) and the more recent literature on which

8Empirical study of the determinants of economic success date back to the 1920s. In the early studies, the analysis was on the relationship of father’s occupation to son’s occupation, and cross-tabulations known as occupational mobility tables were used to measure this link.
we concentrate here, we have identified the following aspects of children and their environments on which we will focus:

- parental education,
- family economic resources during childhood,
- parental assets,
- number of siblings,
- immigrant status,
- neighborhood quality during childhood,
- schooling quality during childhood,
- child care quality,
- changes in family location/composition during childhood, and
- family composition during childhood.

In addition to variables that describe family or community characteristics, nearly all of the studies that we review include in the estimated models a wide range of other background variables, such as race, gender, child’s IQ, year of child’s birth, and parental age at child’s birth.

C. Indicators of Children’s Attainments

While a large number of indicators of children’s attainments have been studied in the research literature, the vast bulk of them have focused on a limited set. These include:

- fertility choices (in particular, the decision of young women to have a nonmarital birth while a teenager),
- education (schooling) outcomes (high school graduation, years of schooling),
- health, and
- labor market success (employment, earnings, and income/needs).

Our review accepts these as the primary outcomes on which we will concentrate. (Health is not discussed here; see note 9, below.)
D. Summary of Important Relationships between Children’s Attainments and Their Correlates

Table 1 in the separate appendix shows the author(s) and titles of the studies circulated or published after 1990 that we have included in this review. These studies supplement the large set of prior studies that were reviewed and critiqued in Haveman and Wolfe (1995). This table also provides the source of each of these post-1990 studies.

Tables 2–7 in the appendix summarize the characteristics of each of these studies and the empirical results that they report. The columns in these tables indicate the data, time period, and estimation method used, the indicators of children’s success (the outcome variables), the independent variables that are included in each study (distinguishing the correlates in which we are most interested, and other background, social, parental, and own choice variables), and comments on the estimates presented. The tables include the outcomes—teen childbearing, high school graduation, educational attainment, health and development, employment and income or earnings—that we have identified as central to our concerns.

Comprehending this extensive documentation of research studies and their results is a daunting task. Table 17 summarizes findings on the linkages between those investments in children on which we have chosen to focus and the set of attainment variables we have identified. An extended version of Table 17, identifying each of the relevant studies, is included in the appendix.

Along the stub of Table 17, we list the primary correlates of interest; the outcomes are shown in the column headings. In each cell, we indicate the number of studies with the sign and the statistical significance patterns indicated for each of the variables of interest, using the four exhaustive categories of these patterns (+ sig; + nonsig; - sig; - nonsig). The counts in each cell reflect only the studies that included a particular variable.

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9We do not here summarize the results of the studies from Table 5 in the appendix concerning health and development outcomes. The outcomes identified in that table are a very diverse set, such as self-esteem, being held back a grade, school expulsion, IQ, juvenile arrests, health care indicators, child behavior, and nutritional status. The patterns of effects for these outcomes are generally consistent with those shown in Table 17.
The construction of Table 17 has required the application of numerous conventions and assumptions, as follows:

- In several instances, the correlates of interest are studied as a series of dummy variables, making it difficult to arrive at an overall assessment of their relationship to the outcome and their statistical significance. Where most of the dummy variables have the same sign, we report that sign; similarly, we indicate statistical significance when most of the coefficients of interest are statistically significant at conventional levels.

- The studies that include variables reflecting arrangements over the childhood period are inconsistent in the definition of this variable. Some use the number of years during childhood with a particular exposure, but even these use different periods for measuring status. Others use a dummy variable indicating whether a particular status ever occurred during childhood. In our assessment, we interpret the sign and significance level of the variables that are reported and do not distinguish among these various specifications.

- For the teen childbearing outcome, we did not distinguish between teen nonmarital and teen marital childbearing.

- The effect of particular variables of interest may be camouflaged by the inclusion of variables closely related to the variable of interest in the estimated models. For example, the effect of homeownership may be hidden in a model in which the amount of net worth is also included. We simply record the sign and statistical significance as indicated in the study.

- Neighborhood quality is often reported in several dimensions, including indicators of income level, education level, family composition, and unemployment rate. We take high-income, high-education, two-parent family prevalence, and low unemployment as reflecting higher-quality neighborhoods.

- When effects were same signed for subgroups (e.g., whites, nonwhites), but statistically significant for one of the groups, the finding for the largest group was recorded in the table.

- We accepted a .1 level of significance as indicating a statistically significant relationship.

Although Table 17 summarizes an enormous literature, it too contains a great deal of information and is not easy to describe. Hence, we have also included an abbreviated Table 18, which summarizes this summary. The second column of Table 18 lists the number of studies on which our overall assessment of the sign of the relationship is based; this assessment is shown in the third column. The remainder of the columns of the table provide a breakdown of the estimated relationships between positive and negative coefficients and for each category indicates the number of estimated relationships that are statistically significant.
Because our primary objective is to identify the family and community characteristics that are most closely associated with the outcomes of interest, our summary will focus on those variables that are listed in the stub of Tables 17 and 18.

1. **Parental Education**

   The level of schooling of mothers and fathers of the children being studied are among the most commonly explored relationships between family characteristics and children’s attainments. Virtually all models indicate that parental education is positively tied to child outcomes, because parents with more education are likely to have more human capital. This human capital should improve parents’ ability to raise their children as well as increase family income via both increased earnings in the market place and more efficient consumption. Parental education also serves as a positive role model in terms of the child’s own expected level of schooling.

   In Tables 17 and 18, with but few exceptions, parental schooling is positively associated with children’s attainments (interpreting the absence of a teen marital or nonmarital birth as a positive achievement). Of the 50 estimated relationships reported in the first row of Table 17, 48 indicate this positive relationship, and of the two estimates indicating a negative relationship neither is statistically significant. Of the 48 estimates suggesting a positive relationship between parental education and children’s attainments, 38 indicate that this relationship is statistically significant.

2. **Family Economic Resources during Childhood**

   Building on a standard human capital framework, it has often been hypothesized that the level of family economic resources will be positively related to the level of children’s attainments when they become young adults. It is presumed that, controlling for other factors, the level of income of a family will enable the family to purchase those inputs to children’s environments that will foster well-being and achievement. Consistent with this view, lack of income, or poverty, is expected to reduce children’s achievement as it reduces the level of purchased inputs such as books, outings, and medical care. Poverty
may also be associated with parental stress, which may have its own negative association with child outcomes.

As Tables 17 and 18 indicate, there are numerous studies of the relationship between indicators of this variable and the four children’s attainments identified. In nearly all cases, the estimated relationship is positive; only 2 of the 47 studies found a negative relationship, and neither of these is statistically significant. Of the 45 estimates of a positive relationship, 27 indicate that the relationship is statistically significant.

3. Parental Assets

Assets, reflecting a stock of resources that can be turned into economic support, are often distinguished from the flow of annual income as an indicator of economic position. Consistent with the expected positive relationship from income to child outcomes, a higher level of parental assets is expected to be associated directly with higher outcomes; assets may also be associated with less uncertainty and a greater feeling of security, which again may be tied to better child outcomes.

In addition to the numerous estimates of the relationship between family economic resources and children’s attainments (reported above), we have identified 17 estimates of the relationship between family assets and children’s success. The majority of these estimates concern the holding of equity in an owned home, while the remainder deal with the level of wealth/assets, or the existence of wealth/asset holdings. As Tables 17 and 18 indicate, only one of the 17 estimates suggests a negative relationship between family assets and children’s attainments, and that estimate is not statistically significant. Of the 14 estimates indicating a positive relationship, 6 are statistically significant, and 8 are not.

4. Female-Headed Family during Childhood

Growing up in a single-parent family is often interpreted as reflecting a lower level of potential parental time investment in children, suggesting a lower level of children’s ultimate attainment. Less time may mean fewer opportunities to read to young children, to help with homework, to go on outings or to participate in the PTA. It may also mean difficulties in securing medical care or involvement in the
child’s after-school activities. Single parents may also face higher levels of stress and anxiety along with greater demands on their time. This single-parent variable is typically included along with family income in the estimated models, in order to measure the independent effect of this aspect of family structure, apart from its relationship to family income.

While single-parent status may include father-only status, nearly all of the reported studies measure single-parent status as growing up in a mother-only family. Most of the studies of children’s attainment contain a variable indicating this status. As reported in Tables 17 and 18, there are a total of 42 estimates of the effect of this variable in the literature that we have surveyed. Of these 42, 32 indicate a negative relationship between being exposed to a female-headed family living arrangement while growing up and children’s attainments. Of these 32 negative relationships, 18 are statistically significant. The relationship between this family variable and labor market outcomes is the most uncertain, as an equal number of studies show positive and negative signs. However, 2 of the 5 studies indicating a negative relationship are statistically significant, while none of the estimates suggesting a positive relationship are significant.

5. **Number of Siblings**

The number of siblings in a family may also reflect the level of parental time that is available to a child, and hence the level of potential parental investment in that child. Time demands include not only time in the home spent with the children (some of which can be shared across children), but also time in arranging children’s activities, time in learning about school and homework, and time spent monitoring children’s activities.

As with the single-parent variable, this too is a standard control variable in many studies of the determinants of children’s attainments. Our survey has revealed 28 estimates of the effect of this variable on the four categories of attainment that we study. Of the 28 estimates summarized in Tables 17 and 18, 25 indicate a negative relationship between number of siblings and attainment, and 19 of the 25 indicate that this negative relationship is statistically significant.
6. Immigrant Status

Several studies include immigrant status. In thinking about this status, it is not clear what association we might expect it to have with child outcomes. On one hand, immigrant status might be tied to English as a second language, which may create difficulties for the child in school and community, and it may also be associated with fewer social ties, which might limit opportunities for the child. On the other hand, many immigrant families bring strong traditions and close family ties with them and these may be associated with positive child outcomes.

We have been able to identify 6 studies that seek to identify the independent relationship between immigrant status and children’s attainments. Two variables have been used to identify immigrant status: living in a household that is non-English-speaking, and having a father who is foreign-born. The results of this characteristic are mixed. Only 3 of the 6 estimates in Tables 17 and 18 suggest a positive effect of immigrant status on children’s success, and none of them are statistically significant. Three of the 6 estimates indicate a negative relationship, and only one of these estimates is statistically significant.

7. Neighborhood Quality during Childhood

Indicators of the quality of the neighborhood in which a child grows up are interpreted as proxies for the level of community support or investment in the child, or as reflecting the quality of the peers and role models that a child encounters while growing up. The growing literature on the impact of neighborhoods includes a new set of studies based on the Moving to Opportunity projects. Within the broad, somewhat controversial literature, there are models that indicate a positive relationship between community (neighborhood) resources and child outcomes. Other models argue that it is individual family resources that matter and that neighborhood resources only reflect parental selection of the neighborhood in which the family resides.

Our review identified 17 coefficients relating some indicator of neighborhood quality to children’s attainments (see Tables 17 and 18). The greatest concentration of these variables are in the teen childbearing outcome, for which 7 estimates are available. Sixteen of the 17 estimates suggest a positive
relationship between neighborhood quality and children’s success, and of these 10 are statistically significant.

8. **School Quality during Childhood**

Only a limited number of studies have sought to reflect the quality of the schools in either the child’s neighborhood while he or she is growing up or the quality of the schools that the child attended. The expectation is that better school quality will be associated with better child outcomes, especially educational outcomes. As with the neighborhood literature, again there is considerable controversy on whether school resources matter.\(^{10}\)

Three sorts of variables have been used in these studies, one providing a variety of indicators of school quality (e.g., education or experience of teachers; level of financial support), another indicating whether the high school is “academic,” and the third measuring the grading standards that are applied in the school. Only 13 estimates for the two school quality variables are included in Tables 17 and 18, and of them all suggest a positive relationship with children’s success. Of the 3 estimates that relate grading standards to children’s success, only one suggests a positive relationship, and it is not statistically significant.

9. **Child Care Quality**

Although the quality of child care has recently become an important research and policy issue, there are only a few studies that have been able to relate the quality of child care to the attainments of children when they become young adults. Most of the existing studies attempt to tie child care quality to early indicators of child outcomes such as school readiness, behavior, or cognitive development.\(^{11}\)

Whether or not any short-term gains from child care continue into later childhood and young adulthood is

\(^{10}\)This controversy is of long standing. See Coleman et al. (1966), Jencks (1972), Summers and Wolfe (1977), and especially Hanushek (1986). The question of the impact of school expenditures on children’s attainments is of substantial importance, as most educational expenditures are public and hence are regularly scrutinized and modified.

\(^{11}\)Vandell and Wolfe (2001) provide a recent review of this literature.
largely unexplored. We have been able to identify only 6 estimates in the literature, and most of these are the results of evaluations of participation in various child care arrangements. All 6 of the available estimates shown in Tables 17 and 18 suggest a positive relationship, and 5 of the 6 are statistically significant.

10. Changes in Family Location during Childhood

The disruption involved in changing geographic location (and schools) is viewed by many as having a potentially negative effect on children’s progress and ultimate success. Moving is viewed as a disturbing experience for children almost regardless of age: moving to a new area or school is stressful and anxiety provoking. Moving to a new school may be challenging in terms of a new curriculum, new expectations, and new friends. Our review identified 8 estimates of this relationship, and all of them indicated that the extent of such moves is negatively related to children’s attainments (see Tables 17 and 18). Seven of the 8 estimates are statistically significant.

11. Changes in Family Composition during Childhood

Parental divorce or remarriage during childhood are also widely viewed as disruptive and stressful events with potentially negative effects on children’s attainments. The event itself may be anxiety provoking, and it often leads to less parental time and less parental quality time with a child. In some cases it may also be associated with a geographic and school move (see above.) Seven empirical estimates of the relationship between these events and children’s success are summarized in Tables 17 and 18, and all of them suggest a negative relationship. However, only 3 of the 7 estimates are statistically significant.

V. SUMMARY AND CONCLUSIONS

In the literature review and review of trends we have paid particular attention to the following aspects of children and their environments:

• parental education,
• family economic resources during childhood,
• parental assets,
• family composition during childhood,
• number of siblings,
• immigrant status,
• neighborhood quality during childhood,
• schooling quality during childhood,
• child care quality, and
• changes in family location/composition during childhood.

We have focused on the limited set of outcomes that have been the topic of numerous studies: education (schooling) outcomes (high school graduation, years of schooling); fertility choices (in particular, the decision of young women to have a nonmarital birth while a teenager), health, and labor market success (employment, earnings, and income/needs).

We have learned that in general, parental education is a significant and positive determinant of a child’s attainments; that one’s family’s economic resources are a positive and significant determinant of years of education, postsecondary schooling (college attendance) and employment, earnings and income of the child as a young adult. We also found that growing up in a single parent household or experiencing a parental separation or divorce was significantly associated with the probability of giving birth as a teen and reducing the probability of graduating from high school. We also noted some evidence that changes in family location tended to be associated with poorer outcomes as an adult, although this has not been extensively studied.

In terms of aspects that might be thought of as social capital—neighborhood quality and school quality—we found some limited evidence that better quality was associated with better outcomes. For neighborhood quality, the association seemed to run across all four outcomes, while school quality seemed associated significantly only with more years of schooling and high school graduation. For
quality of child care, the limited evidence consistently suggests a positive association between child-care quality and all four outcomes reviewed, but the studies are small and limited.

In terms of other aspects of a child’s experience, we found evidence of negative associations between having more siblings and outcomes as a young adult but no consistent evidence of any tie between outcomes and immigrant status, though again there is but limited evidence on this family characteristic.

In terms of parental assets or wealth, the few existing studies suggest that more assets are associated with better outcomes, again across all outcomes that we reviewed. Since greater assets are associated with a greater ability to purchase more inputs for one’s child, this association is both consistent with an economic model and with the possibility that greater inequality in inputs (wealth) will lead to greater inequality in outcomes.

Given the trends that we studied we can speculate on the expected changes. By necessity, this means we are reinterpreting “association” to suggest a causal connection. We do this only for the purpose of this speculation, although we hope that our research will test this causal structure to some degree.

To the extent that the absolute level of some resources improved, we expect outcomes might have improved. The overall increase in parental education is one of the most important of these changes in levels, and we speculate that it is associated with an increase in the education of children and an improvement in their earnings; however, trends in these outcomes suggest that while education levels have increased, earnings have not on average. The absolute decrease in family size (number of siblings) is also expected to be associated with an improvement in outcomes. In contrast, the increase in the number of children who live with only a single parent leads us to expect a decline in child attainments.

We have also provided evidence that a number of the important factors associated with children’s attainments became more unequal over the last four decades. This is especially the case across racial groups. Included in this set are income and assets, educational level of parents, the probability of living with a single parent, and the probability of moving. We expect children living in more advantaged
families (those with higher incomes, greater wealth, college-educated parents) to be very likely to receive a college degree, to not give birth as a teen, and to begin their career in a high-status occupation with both a relatively high salary and a projected stream of earnings that is substantial. Alternatively, we expect that those children who grew up in homes with low income and zero or very low wealth, and have parents whose education is no greater than a high school degree will not be likely to attend college and will not begin their career in a high-status occupation but rather a low-status occupation with little expectation of substantial growth in salary. And, given this outlook, we expect that a number of these young adults will give birth when an adolescent.

Combining these patterns of changes in inputs, we would expect a slight increase in these four outcomes on average (fewer teen births, more high school graduates, more years of schooling including college, and higher employment and earnings) but also an increase in the inequality of these outcomes among the more recent cohort of children. We expect that the inequality will be found across income groups and particularly across racial and ethnic groups. Overall, our working hypothesis is that more recent cohorts of children have experienced greater inequality in a variety of family and community inputs while growing up than have earlier cohorts, and that this inequality of inputs will be revealed to be associated with higher levels of inequality in outcomes when they grow up.

What remains largely unknown is whether the increase in inequality in family resources is intensified by increases in inequality in public investments or offset by such investments. To be more specific, has increased inequality in family income and wealth resulted in more economic and racial segregation? And, if so, has this also led to greater inequality in public investments in children, such as the quality of schools children attend? The quality and type of child care these children receive as toddlers? The quality and availability of health care and of health insurance coverage?

Our next step will be to explore these outcomes over time, paying particular attention to growing inequality in income, assets, and parental education. We plan to use the decennial census as well as the Current Population Surveys to chart trends in inequality in family resources over time, including family
income, parental education, family structure, and number of siblings. We will also use the PSID to examine cohorts of individuals who experience childhood and early adulthood at different periods in recent American history. Subsequently we will explore whether the increase in income inequality has led to increases (or decreases) in equality of public investments that we find to be important in our analysis of individuals in the PSID data set.
During the 1950s to the 1969s Americans enjoyed relative economic prosperity. The economy expanded and incomes generally increased at about the same rate across the board. However, the promise of economic prosperity across time and generations has not been fulfilled since the 1970s. Economic security is lost as relative wages for many jobs decrease, benefits such as health insurance and pension plans are made available less frequently, unemployment for both white and blue collar workers is on the rise, the age of retirement is increased, and returns to social security decrease. Gone are the days when one wage earner can support a middle-class family. There must frequently be two breadwinners in a home in order to maintain a standard of living once available on one salary.

During the 1980s inequality increased across age, wealth, education, family status, and race. The elderly saw an increase in incomes and a decrease in poverty between 1971 and 1991. This was due in large part to increased government spending. Two-parent African American families also witnessed an increase in economic well-being relative to similarly situated white families. Women’s earnings have risen relative to those of men. Men’s earnings have increased very little since the early 1970s. Hence, rising family income is frequently associated with employment (or increased employment) of a second breadwinner. Female-headed families’ economic well-being in comparison to male-headed families’ has decreased despite increased labor force participation.

Latinos have not improved their economic position since 1971. Recent immigration and increased labor market discrimination are two possible explanations for this. Family income for families with children kept pace with the economic position of other families of the same race/ethnicity prior to 1973. This relation did not hold after 1973, when the growth in median income for families without children increased at a higher rate than for families with children. However, inequality also increased within groups. For example, economic well-being among children of different races is less equal than that
between the races as a whole. Further, many white collar workers were laid off and many college graduates struggled to find work. The same holds within racial/ethnic groups.

The sources of income have changed in the last couple of decades as well. While white male heads of household contributed more than 80 percent of the family income in 1949, in 1991 they accounted for just over 60 percent. White wives’ share of family income has increased from about 8 percent in 1959 to more than 21 percent in 1991. From the early 1970s on, white men and women saw very little increase in their earnings; thus much of the increase in family income is due to increases in property income, government transfers, and earnings contributions of other family members (Danziger and Gottschalk, 1995, p. 80). The picture is only slightly different for nonwhite households. Whereas after 1973 white women’s wages were an increasingly important component of family income, among black families both husbands’ and wives’ earnings were equally important factors in the growth of family income. For Latinos, the earnings of wives increased while the earnings of husbands fell.

Although there have been shifts toward demographic groups that tend to be less economically well off in the last couple of decades, these shifts are not greatly responsible for rising inequality. Changes in the labor market were most central to rising inequality.

Danziger and Gottschalk (1995) argue that during the economic recovery and expansion of the Reagan administration the historically positive relationship between standard of living and macroeconomic growth was broken. It was a time when median income increased substantially but the poverty rate did not decrease significantly. Other research has also explored this relationship and found that during this period economic growth did not trickle down to the poor (Haveman and Schwabish, 2000). Economic growth did begin to have an effect on the poverty rate in the late 1990s. Haveman and Schwabish (2000) conclude that the historically strong relationship between macroeconomic performance and the poverty rate had reestablished itself in the 1990s. Again, strong economic growth and high employment may again be the nation’s most effective antipoverty policy instrument.
By 2000, the poverty rate for whites (7.5 percent), Asian and Pacific Islanders (10.8 percent), Hispanics (21.2 percent), and blacks (22.1 percent) had reached or matched their all-time historical lows. Median household income for these groups had reached or matched its all-time historical high (Dalaker, 2001).

The Evolution of Thinking about the Reasons for Growing Income Inequality and Persistent Poverty

A discussion of the social, economic, and policy developments—and the analytical perspectives of social scientists—since the 1960s can provide perspective on the forces that have accompanied these trends in income inequality and poverty. We discuss some of these social and economic developments for each of the four decades since 1960.

The 1960s

During this decade Americans seemed convinced that government could combine scientific thinking and additional public resources to solve pressing national problems. The announcement of the War on Poverty made income poverty one of those problems. Income poverty was officially defined and measured, the best minds were gathered to develop proposals to address it, and a legislative agenda was prepared. Many social scientists contributed to the development and implementation of antipoverty programs. Psychologists contributed much of the thinking behind the Head Start program, sociologists and political scientists contributed to the Community Action program, and economists formulated proposals to reform income maintenance programs to raise the incomes of the poor.

In a paper delivered at the 1964 meeting of the American Economic Association, Robert Lampman (1965) presented the poverty problem as multicausal, deriving from some combination of events external to individuals (e.g., illness/disability, family dissolution, death of family breadwinner, unemployment), social barriers in the form of caste, class, and custom (e.g., racial and gender discrimination, employer hiring procedures, union rules), and limited ability to earn (e.g., inadequate skills needed for the market). According to this point of view, external events were a major culprit, and
among them unemployment was chief. As a result, improved macroeconomic performance was the primary instrument. If cyclical unemployment could be abolished, poverty would be reduced and economic gains would be widely distributed. A second major problem was inadequate education, training, and labor force skills. An array of programs designed to increase human capital and reduce discrimination were to be put in place to ensure that the disadvantaged would not be left behind.

Those who were not expected to participate in the labor market and those who remained poor even in a growing economy would need access to government assistance even in good economic times. To aid them, the President’s Commission on Income Maintenance Programs in 1969 recommended “a universal income supplement program to be administered by the federal government.” Shortly thereafter, President Nixon proposed the Family Assistance Plan (FAP), a low-guarantee negative income tax.

The 1970s

In the early 1970s, academics and some federal agencies and policy makers continued to propose variations of a universal, comprehensive income transfer system as a replacement for the many separate welfare programs. The 1972 election campaign highlighted candidate George McGovern’s proposed $1,000 per person demogrant as a replacement for existing welfare programs. McGovern and his plan were roundly rejected, and Nixon’s FAP failed in the Senate (having passed the House) because it was too conservative for liberals and too liberal for conservatives.

Senator Russell Long opposed income guarantees for all of the poor. He argued that public support should be given only to low-income workers. His proposal, the Earned Income Tax Credit (EITC) was adopted in 1973, and has enjoyed bipartisan support over the past quarter century. By the late 1990s, EITC funding exceeded funding for cash welfare.

The idea of a minimum income guarantee was resurrected by President Carter in his 1977 Program for Better Jobs and Income (PBJI). While it, like FAP, provided a universal income guarantee, PBJI made cash assistance dependent on work, guaranteeing a minimum-wage public service job for poor
welfare recipients who were able-bodied and expected to work. Like FAP, it was not enacted by Congress. With it, federal discussion of a minimum income guarantee for the able-bodied poor ended.

The idea of a guaranteed income for all of the poor in the form of Food Stamps did take hold. By the end of the 1970s the Food Stamp program, in 1970 a small effort to stabilize and support farm prices, had grown to assist all low-income families regardless of their work or marital status. And Congress did create the Supplemental Security Income program, which provides a minimum annual income for the elderly, blind, and disabled poor. The coverage, benefits, and total spending on health care for the poor also expanded rapidly after the adoption of Medicaid in the mid-1960s.

*The 1980s*

By the late 1970s, the optimism that government could solve most social problems turned to pessimism that “nothing works.” Despite the increase in public spending, poverty rates for the nonelderly did not fall after the early 1970s, in large part because of adverse macroeconomic conditions—two oil price shocks, multiple recessions, and widespread industrial restructuring. Critiques of public redistribution and other social policy interventions took center stage after the election of President Reagan. His administration set out to cut back the scope of social programs, arguing that the social policies enacted in the 1960s and 1970s undermined the functioning of the nation’s basic institutions and encouraged permissiveness, nonwork, and welfare dependence, leading to marital breakup, nonmarital childbearing, and the erosion of individual initiative. Spending on employment programs was cut dramatically, as the Comprehensive Employment and Training Act, enacted in 1973 to provide public service jobs and on-the-job training to disadvantaged workers, was replaced with a much smaller job training and search assistance program, the Job Partnership Training Act.

The Reagan administration set in motion a major change in welfare policy that would eventually radically alter the Aid to Families with Dependent Children Program. In 1981, it proposed a program of mandated work for able-bodied welfare recipients. Although this was not legislated, the law that passed encouraged states to establish work requirement programs and signaled new work expectations for single
mothers with children. The generally positive experiences with these programs in many states in the mid-1980s influenced the Family Support Act of 1988 and culminated with the 1996 welfare reform bill. Other major changes in antipoverty policies in the 1980s included further expansion of the Earned Income Tax Credit and the Family Support Act of 1998. The latter required all states to implement welfare-to-work programs and offer a range of support services to increase the work effort of welfare recipients.

The Reagan philosophy was that tax cuts and spending cuts would increase the rate of economic growth, and the poor would ultimately benefit through the increased employment and earnings that would follow. However, a deep recession in the early 1980s increased poverty, and the subsequent economic growth did not “trickle down.” Although the economy expanded for many years in the 1980s, wage rates of low- and medium-skilled male workers did not. On the other hand, the earnings of those in the upper part of the income distribution grew rapidly.

The 1990s

Candidate Clinton emphasized the extent of poverty and economic hardship during his campaign and promised that he “would make work pay” and “end welfare as we know it.” In 1993 he delivered on the first part of the promise by greatly expanding the Earned Income Tax Credit. Although his own welfare plan was set aside after Republicans took control of Congress in the 1994 elections, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) ended welfare as we knew it by ending the entitlement to cash assistance, setting a time limit for the receipt of benefits, and mandating work.

Thus, by the end of the century, antipoverty policies had achieved one vision of the planners of the War on Poverty: a substantial set of income supports were in place for the working poor, regardless of where they lived or their marital status. As a result, a single mother with two children who worked full-time, full-year at the minimum wage would receive an EITC that was about 40 percent of her earnings, bringing her gross income to just about the poverty line. She would also be eligible for increased child care subsidies, and her children would have greater access to subsidized medical care than in the past.
However, the vision of universal support for the nonworking poor had been rejected many times. Whereas President Nixon had proposed expanding cash assistance to all of the poor, under President Clinton, the 1996 legislation set strict limits on welfare receipt. As a result, cash support for the nonworking poor is less available and less generous in 2001 than it was in 1969.
References


