

Introduction

The last 30 years have been a social disaster largely because people have felt free to enter into—or leave—any relationship they wanted. The result has been abandoned women and children, births out of wedlock and fatherless children. Children need a mother and a father. Marriage must be preserved as an institution intended to bring a man and woman together. It is not hateful or exclusionary to say these things.

(Bauer 2000)

[That] family relationships occupy an important but ever shrinking space in our lives . . . is the continuation of a long-term process and is not confined to any one country. . . . There is no reason to think that these processes are exhausted or likely to reverse.

(Bumpass 1990)

Sexual behaviour has never anywhere been confined to procreative behaviour, procreative behaviour confined to marriage, and marriage confined to the official celebrations established by society.

(Laslett 1980)

Nonmarital fertility, with its consequences for women, children, and social institutions such as marriage and the family, has increasingly captured the attention of researchers, policymakers, and the public. Heated debate on the subject in the mid-1990s (Whitehead 1993) culminated in the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), one goal of which was to achieve reductions in nonmarital childbearing. To this end, the federal government now awards \$100 million annually to the five states with the largest reductions in the proportion of births outside of marriage.

There has been both good and bad news since passage of the PRWORA. The good news is that the percentage of births to unmar-

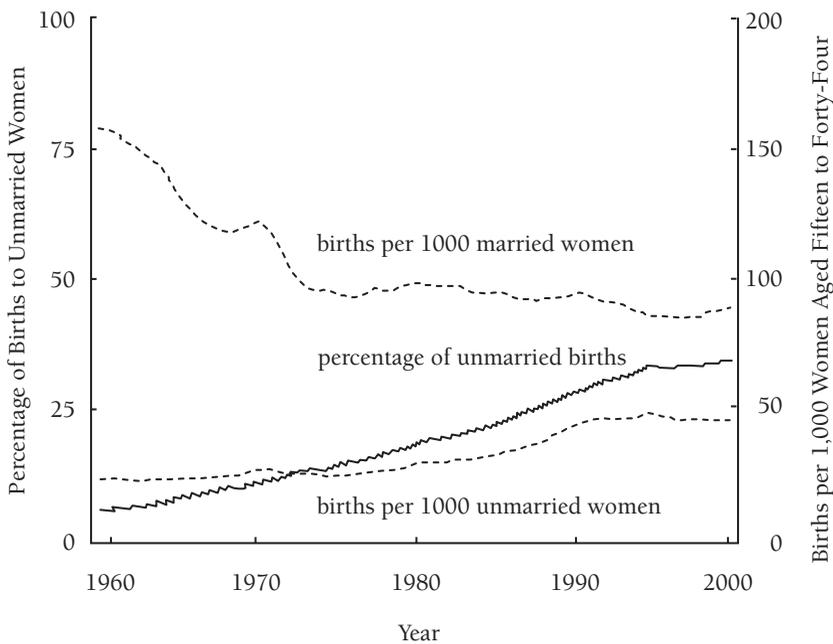
ried women stopped increasing after 1995 (see figure I.1). For social scientists, this represents a striking break from the previous trends. The bad news is that the percentage of children born outside of marriage remains high even after the enactment of PRW-ORA. One of every three children born in 1999 was to an unmarried mother; this percentage has been unchanged since 1995.

Because the percentage of births to unmarried women is simply the ratio of unmarried births to all births, social scientists have long understood that changes in this index can be driven by changes in nonmarital childbearing, changes in marital childbearing, or changes in both. Computing separate time-series for birth rates to married and unmarried women (see figure I.1) reveals that much of the increase in the percentage of births to *unmarried* women over the last four decades has in fact been driven by declines in the rate of childbearing among *married* women. This means that even if the change from a welfare system based on Aid to Families with Dependent Children (AFDC) to one based on Temporary Assistance for Needy Families (TANF) played a role in arresting the steady increase in the proportion of children born out of wedlock, it appears not to have turned back the clock on out-of-wedlock births. Nonmarital childbearing shows no sign of subsiding, here at the beginning of the new century, in either absolute numbers or social impact.¹

Continuing high rates of nonmarital childbearing lead commentators like Gary Bauer (2000) to be concerned about the health of social institutions such as marriage and family, but historians (Laslett 1980) also remind us that “bastardy” has been present from time immemorial. Moreover, as the demographer Larry Bumpass argues, the trends underlying nonmarital fertility are rooted in long-term historical processes that transcend national boundaries. Addressing the issues underlying this debate is not unlike determining how one might judge whether nonmarital fertility is relatively high or low. One way to try to answer this question is provided by comparing levels of nonmarital childbearing in the United States, as in figure I.1. Another is to compare levels of nonmarital fertility in the United States with other industrialized countries.

Research by Kiernan (this volume) and Ventura and Bachrach (2000) contains surprising information on the latter means of comparison (see figure I.2). The United States falls roughly midway between the highest and lowest levels of nonmarital fertility in twenty industrialized nations. Substantially higher proportions of births to unmarried women are found in Scandinavia and the for-

Figure I.1 Percentage of Births to Unmarried Women and Birth Rates for Married and Unmarried Women Aged Fifteen to Forty-Four, United States, 1960 to 1999

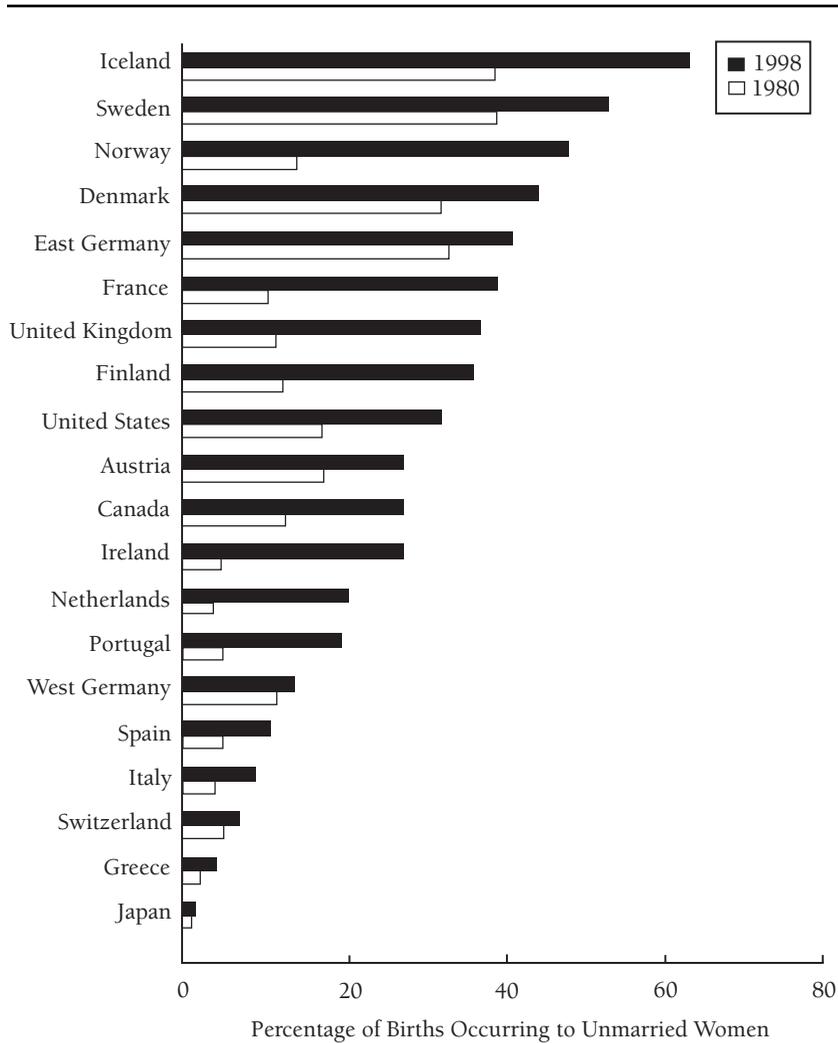


Source: Ventura and Bachrach (2000).

mer East Germany, where roughly one of every two births is outside of marriage, and in France, the United Kingdom, and Finland, where more than one of every three births is nonmarital. Levels in Austria, Canada, and Ireland are slightly lower than in the United States, and they are lower still in the Netherlands and Portugal. The lowest levels are recorded in the former West Germany, Spain, Italy, Switzerland, Greece, and Japan.

Nearly all of these countries, moreover, have witnessed sharp increases in nonmarital fertility: several countries have experienced a doubling or more in the percentage of such births since 1980. It is these findings that have led social scientists like Bumpass to argue that recent trends in nonmarital fertility reflect other social forces—the increasing participation of women in the labor force, continuing

Figure I.2 Percentage of Births Occurring to Unmarried Women in Selected Industrialized Nations, 1980 and 1998



Source: Kiernan (this volume); Ventura and Bachrach (2000).

Note: Most recent data are from 1997 for Sweden, France, Finland, Canada, and West Germany, and from 1995 for East Germany, Spain, and Switzerland.

high levels of divorce, the almost universally high levels of sexual activity prior to marriage, and the increasingly widespread diffusion of cohabitation—and that these social forces, in turn, are transforming the institutions of marriage and the family in ways that transcend national boundaries. Or as the economist Shelley Lundberg puts it at the close of this volume, we must keep in mind that nonmarital childbearing is likely to represent a response by individuals to fundamental changes in the long-term contract represented by marriage.

An extremely important (and rapidly evolving) focus of research on nonmarital fertility is childbearing by cohabiting couples. Here, too, there are important differences between the United States and Europe, as the chapters in this volume reveal. The overwhelming proportion of European nonmarital births are to two unwed parents who are coresiding. In the United States, fewer than half of births outside of marriage are to cohabiting parents. As a result, U.S. children born to unmarried mothers are likely to spend more years, on average, than their European counterparts growing up without a father. This difference is of concern to social scientists and policymakers because, all else being equal, a family with an absent father has less access to his income, as well as to the emotional and social resources of a second parent. The greater prevalence of father absence in the United States may partly explain why child poverty is higher, and many child and adolescent outcomes are worse, in the United States than in Europe. Moreover, social provisions for children are generally less generous in the United States than in Europe, further exacerbating national differences in family and child well-being.

The striking differences in nonmarital fertility by race and ethnicity in the United States underlie further differences between this country and the European nations. For American whites, births within cohabiting unions have risen sharply, accounting for virtually all of the observed increase in white nonmarital fertility. This pattern closely resembles trends observed across Europe. By contrast, births within cohabiting unions account for a far smaller proportion of nonmarital births to black women—fewer than one out of five—and over time, births within cohabiting unions have constituted a declining fraction of nonmarital births to black women.

Viewed one way, births within cohabiting unions resemble births within marital unions—two biological parents are present, incomes

and other resources are presumably shared, and household work and childrearing activities can be, at least in principle, divided between two adults. Viewed another way, however, births within cohabiting unions are closer to births to single, noncohabiting women in that cohabiting unions are far less stable than marital unions. As a result, children born within a cohabiting union are more likely to spend fewer years living with both biological parents than children born within a marital union. Moreover, what we observe—the presence or absence of a marital or cohabiting union—is but a crude proxy for what is far more difficult to observe: the commitment of the adults to one another and to the child, commitments which may vary over time.

What is clear is that children born outside of marriage spend more of their lives below or at the poverty line, in part because of the number of years they spend in families headed by a single mother. This raises a serious issue: social underinvestment in children in families headed by a single mother. When this occurs, liberals have traditionally argued that other social agents—typically state or federal agencies—should address the difference. However, a dilemma for policymakers is that the social and economic resources intended for children very often assist parents as well, as it is difficult to target policies in ways that benefit children but not parents. This has led conservatives to argue that programs such as AFDC may have fostered behaviors that are deemed socially undesirable—for example, the view that AFDC may have contributed to the rise in out-of-wedlock childbearing.

However troublesome these issues are, the questions they raise must be balanced against two facts: substantial proportions of this nation's children are raised in poverty, and children born to unmarried mothers are among those at the highest risk of poverty.

TRENDS AND INTERNATIONAL COMPARISONS

For researchers, one difficulty posed by nonmarital fertility is that it lies at the intersection of several processes by which families are formed: childbearing, marriage, and, increasingly, cohabiting unions. The contributors to this volume show how researchers have addressed the conceptual, theoretical, methodological, and empiri-

cal issues posed by nonmarital fertility. Nevertheless, these issues remain challenging.

For example, researchers are only now beginning to grapple with the additional analytic issues that arise when cohabitation is included in their behavioral and statistical models. In this volume, seven of the twelve chapters proceed without attention to births occurring within cohabiting unions (Kaye; Moffitt; Foster and Hoffman; Bartfeld and Meyer; Korenman, Kaestner, and Joyce; Havesman, Wolfe, and Pence; Upchurch, Lillard, and Panis). The remaining chapters (Wu, Bumpass, and Musick; Kiernan; Ermisch; McLanahan et al.; Lichter and Graefe) distinguish, at least some of the time, between births to married couples, births to cohabiting couples, and births outside either marital or cohabiting unions. Some of this inconsistency is attributable to data limitations: several major U.S. surveys lack information that would allow researchers to identify a nonmarital birth within a cohabiting union. Another reason concerns the evolving nature of nonmarital childbearing. Whether to bear a child within marriage, within a cohabitating union, or outside of either arrangement may well mean something quite different now than it did twenty years ago.

In chapter 1, Lawrence Wu, Larry Bumpass, and Kelly Musick pose several questions about nonmarital fertility in the United States: How has nonmarital childbearing changed in recent decades, and what are the components of this change? Do nonmarital first births differ from later births? How does nonmarital fertility differ by age of mother and race and ethnicity? To what extent is nonmarital fertility attributable to childbearing by cohabiting couples?

Our examination of trends in nonmarital childbearing during the last twenty-five years reveals startling differences by race. As noted previously, one of three U.S. births now occurs outside of marriage. This proportion in the early 1990s was one in four for white women, compared with seven in ten births for black women. Black-white differences are equally stark with respect to nonmarital first births and births to cohabiting couples. In the early 1990s, one in three first births to white women were nonmarital, while more than eight in ten first births to black women were nonmarital.

How does nonmarital fertility vary with the age of the mother? Despite a marked shift toward nonmarital childbearing at older ages, nonmarital fertility in the United States still tends to occur at young ages, with half of all nonmarital first births between 1990

and 1995 to teenage women. Age differences are even more apparent when marital and nonmarital first births are juxtaposed. For marital first births to both black and white women, the mean age at first birth rose by five years, from twenty-three to twenty-eight, between 1970 and 1995. For nonmarital first births during this twenty-five-year period, the mean age at first birth rose from twenty to twenty-one for white women and from nineteen to twenty-one for black women. Thus, unmarried women in the mid-1990s were, on average, seven years younger than their married counterparts when they gave birth to their first child, with well over half of nonmarital first births occurring during the teen years for both black and white women. As a result, the *initiation* of nonmarital childbearing in the United States appears strongly tied to patterns of early family formation.

What impact does marital or union status have on nonmarital second births? We find that most women proceed to a second birth irrespective of their marital or union status at their first birth. Nevertheless, union status at first birth is highly associated with union status at second birth: marital first births are overwhelmingly followed by marital second births, cohabiting first births by cohabiting second births, and single first births by single second births. One reason for this association is the sharp decline in marriage following a nonmarital first birth, particularly for black women. Perhaps more interestingly, union instability appears considerably greater for women who bear their first child within a cohabiting union. Cohabiting women are more than twice as likely to experience the dissolution of their union following a first birth than their married counterparts.

Kelleen Kaye's findings, reported in chapter 2, will be of particular interest to state policymakers given PRWORA's cash bonuses to states with the largest reductions in the percentage of nonmarital births. She finds that nonmarital births ranged in 1997 from 64 and 45 percent in the District of Columbia and Mississippi to 20 and 15 percent in Idaho and Utah. Nonmarital births are particularly concentrated among those with the least education and among women in their teens or early twenties.

Minority populations are large in the District of Columbia and Mississippi but small in Idaho and Utah. Because of this, Kaye asks how state rankings would be altered if the racial and ethnic composition of each state were equalized to that of the nation as a whole.

This exercise yields some surprises: Indiana, Nevada, Pennsylvania, Rhode Island, and Wisconsin rank high in nonmarital childbearing after standardization, owing in part to high levels of nonmarital childbearing among minorities in these states. Kaye also finds that national trends in the percentage of births to unmarried women are mirrored at the state level, but that states exhibit a pattern of “regression to the mean.” This means that many of the largest increases occurred in states with the lowest levels in 1980, and many of the smallest increases took place in states with the highest levels in 1980.

The next two chapters broaden the scope of the volume by looking at nonmarital fertility outside of the United States. In chapter 3, Kathleen Kiernan documents substantial variation in nonmarital childbearing across Europe. An important contribution of this piece is Kiernan’s focus on childbearing among cohabiting couples. The main lesson is that it is impossible to understand recent changes in European nonmarital fertility without understanding the very substantial rise in childbearing within cohabiting unions across all European nations. Despite widely varying initial levels of nonmarital fertility, nearly all nations have moved away from the initiation of childbearing within marriage and toward its initiation within a cohabiting union. A key finding is that the proportion of women having a first child within a union—either marital or cohabiting—exhibits little change for successive cohorts of women. Kiernan’s estimates also show that first births outside either a cohabiting or marital union are less common in Europe (with only two exceptions, Austria and Great Britain) than among white women in the United States.

As in the United States, cohabiting unions in Europe are more likely than marital unions to dissolve following the birth of a first child, but union dissolution rates are noticeably lower in Europe than in the United States. (As noted earlier, Great Britain is an exception to this rule.) Overall, the trend within Europe (like that for whites in the United States) is toward childbearing within *de facto* unions, rather than *de jure* unions. It seems likely that the greater stability of European cohabiting unions will lead, all else being equal, to more favorable child outcomes in Europe than in the United States.

As noted in Kiernan’s findings, nonmarital fertility in Great Britain seems to run counter to its European neighbors, and in chapter

4, John Ermisch sheds considerable light on these differences. Ermisch's findings suggest that U.S. and British nonmarital fertility share some striking similarities in ways that set both apart from most of Europe. Indeed, the proportion of births occurring outside of marriage is even higher in Great Britain than in the United States. In both countries, nonmarital childbearing is especially prevalent during the teen years. Paralleling trends in Europe and in the United States, increases in the percentage of nonmarital births in Britain are due primarily to a rise in cohabiting first births. And relative to marital births, births within cohabiting unions or outside of any union occur disproportionately to women from poorer socioeconomic backgrounds.

Another similarity between Great Britain and the United States is the instability of cohabiting unions, relative to marital unions, following a birth. Ermisch calculates that 30 percent of children born within marital unions will experience the divorce of their parents prior to their sixteenth birthday; for children born within a cohabiting union, 64 percent will experience their parents' separation through the dissolution of their cohabiting or marital union. (These estimates are remarkably similar to the life table estimates obtained by Wu, Bumpass, and Musick, reported in chapter 1.) Ermisch's estimates of the consequences of unstable unions and marriages for British children in terms of how many years they will live in a single-mother family are nearly identical to the estimates of Bumpass and Lu (2000) for U.S. children, again suggesting striking similarities in the experiences of British and U.S. children.

WELFARE, CHILD SUPPORT, AND PUBLIC POLICY

The next set of chapters focus on welfare, child support, and other public policy issues. Robert Moffitt breaks important new ground in chapter 5 by examining time-series data on the relationship between AFDC and nonmarital births. A large economic literature (for a review, see Moffitt 1998) has examined this relationship in cross-section, and the consensus among social scientists is that AFDC benefits exerted a statistically significant but small effect on nonmarital births. A persistent puzzle, however, is how to square these cross-sectional findings with trends in nonmarital births and AFDC generosity—nonmarital births increased dramatically in recent de-

cedes, while the inflation-adjusted real value of AFDC benefits fell markedly over the same period.

Moffitt's results suggest that there is in fact no real inconsistency between the time-series and cross-sectional evidence. One possibility is that falling AFDC benefits acted over time to reduce nonmarital births but other factors pushed nonmarital births in the opposite direction. Following a long tradition in labor economics, Moffitt posits that changing labor market opportunities for women (as proxied by female wage rates) influenced women's childbearing decisions, but he also augments these analyses by examining the effects of male wages and the relative wages of males and females. It is interesting to note that male wages, while implicit in economic models of the family (Becker 1973), have played a central role in some influential sociological accounts of nonmarital childbearing (Wilson 1987).

Moffitt's empirical analyses rely on a series of stylized time-series models employing random year effects, with data drawn from a time-series of male and female wage rates, combined with national time-series data on AFDC, food stamps, and Medicaid benefits between 1968 and 1996. The results are consistent with both the arguments that emphasize the role of AFDC and those that focus on male and female labor market opportunities. Moffitt's results suggest that the rise in female headship over the last thirty years has *not* been due primarily to changes in the generosity of welfare benefits. As a result, other factors, such as declines in marriage or changes in labor market conditions, are more likely to explain the dramatic rise of female headship in the United States.

In chapter 6, E. Michael Foster and Saul Hoffman examine the linkage between AFDC and nonmarital childbearing along more traditional lines. The important innovation in their analysis is to ask whether this relationship varies with the age of the mother. This question confronts a serious substantive difficulty: during the teen years, adolescents undergo remarkable changes, not just physically but also cognitively and socially. This is a point emphasized by psychologists in the areas of child and adolescent development. It is also (or should be) of consequence to economists, sociologists, and demographers. It is a particularly relevant factor to Foster and Hoffman because, as they note, one might expect older women (or those at risk of a nonmarital second birth) to act more deliberately and "rationally" than teenage women or women who have not yet

given birth. Thus, one might expect older women, or women at higher birth orders, to be more sensitive to variation across states (and perhaps across time) in welfare generosity in ways expressed in behaviors related to marriage and fertility. As Foster and Hoffman note, this sort of age variation cannot be motivated from economic models in which women are thought to maximize utility over their lifetime, although it can be motivated from models in which women are viewed as relatively myopic, using current benefits as a proxy for probable short-run benefits.

A second point of departure for Foster and Hoffman is an influential paper by Mark Rosenzweig (1999), who finds a greater association between AFDC and nonmarital childbearing than has been found in other studies. Like Rosenzweig (1999), Foster and Hoffman employ state fixed-effects models (as they do in a companion paper, Hoffman and Foster 2000). Their consideration of nonmarital fertility through age thirty moves beyond both papers, however, by distinguishing between nonmarital first and second births and by allowing the association between AFDC and nonmarital fertility to vary with age. Their results give some support to the idea that the effect of AFDC varies with the age of the mother, in that welfare discourages younger women from marrying and encourages women in their twenties to bear children outside of marriage, particularly at higher birth orders. Still, their estimates for the effects of AFDC on marriage and nonmarital fertility prove quite sensitive to the inclusion or exclusion of state fixed-effects. As Foster and Hoffman note, the resulting findings are difficult to interpret. The argument for including state fixed-effects is that they capture unobserved state-level factors that may affect both a state's level of welfare generosity and, in turn, the nonmarital fertility of women residing there. Failure to correct for such unobservables can bias estimates controlling for state fixed-effects. But fixed-effects estimates reduce precision and can amplify biases created by measurement error. As a result, the absence of a statistically significant effect need not imply the true absence of an effect.

In chapter 7, Sara McLanahan, Irwin Garfinkel, Nancy Reichman, and Julien Teitler report on early findings from the Fragile Families Project, an important data collection effort in twenty cities consisting of interviews with young mothers and fathers in hospital settings at the time of birth. They present analyses based on data for 1,764 mothers in seven cities—Austin, Baltimore, Detroit, Newark,

Oakland, Philadelphia, and Richmond. They find that although only a small proportion are married at the time of birth, the vast majority of mothers and fathers report themselves as romantically involved. This is an intriguing finding and one that differs considerably from both depictions of men as engaged in a contest to win status by fathering many children out of wedlock (Anderson 1990; Willis 1999) and accounts in which women perceive fathers as unreliable breadwinners (Edin and Lein 1997).

If parents are unmarried but romantically involved, are they cohabiting? McLanahan and her co-authors answer this question by providing not one but several sets of estimates of cohabitation. One gives substantially larger proportions of births within cohabiting unions than national estimates, while another agrees substantially with national estimates. What could account for these discrepancies? All else being equal, the tendency of social scientists to trust reports based on shorter rather than longer durations of recall would favor the estimates from *Fragile Families* rather than those from national estimates, which rely on retrospective reports. The time periods also differ: the most recent national estimates come from the early 1990s, and *Fragile Families* estimates cover the late 1990s. Thus, increases in cohabitation among minorities—or concealment of cohabiting unions by AFDC recipients—could account for these differences.

It is also possible that, by interviewing respondents at the time of birth, *Fragile Families* catches parents at a time of unusual optimism, perhaps biasing responses toward more socially acceptable answers. Indeed, the alternative estimates set forth in this chapter suggest that this optimism may play a significant role. For example, about 60 percent of white and Hispanic mothers and 40 percent of black mothers report that they cohabited with the father of their child at the time of birth. However, these percentages drop to around 50 percent for whites and Hispanics and to 28 percent for blacks when this item is combined with questions about whether the baby will live with both parents and whether the father is listed on the household roster. These latter percentages are very close to national estimates of the percentage of nonmarital births to cohabiting couples.

Whatever the precise estimate for cohabitation, these results are important because they show that substantial numbers of fathers are present at birth and that many appear ready and willing to be

involved in raising their children. Nevertheless, McLanahan and her colleagues caution that father involvement is likely to decline over time among those couples who do not marry or who break off their relationship. Certainly, some couples will eventually marry, although it must be borne in mind that marriage is likely to differentially select on the least fragile of these families. Still, this picture is strikingly similar to that given by Frank Furstenberg (1995) in summarizing the findings from his Baltimore study: “The intentions of fathers far outstrip their ability to make good on their goal of becoming involved caretakers. Whether by design, desire, or default many fathers retreat—some almost immediately but most after their initial efforts end in frustration or their motivation lags.” Although unmarried parents may express hopes and desires similar to those of married parents, their unions are subject to a variety of circumstances—disruption and poverty among them—that make their families unusually fragile.

In chapter 8, Judi Bartfeld and Daniel Meyer report on a little-examined phenomenon—the role of child support in providing income to families in which a child is born outside of marriage. Issues related to child support have grown in importance since the passage of the Family Support Act of 1988, which led to increased efforts to establish paternity and stricter enforcement of child support awards. Bartfeld and Meyer restrict their analysis to never-married women with children present in the household at the time of survey and use nine years of repeated cross-sectional data to construct synthetic cohorts of women and children.

Their findings suggest that relatively few households in this sample receive child support. Nevertheless, among those who do receive some child support, it amounts to a substantial fraction of household income. Interestingly, the probability of child support receipt rises (and reliance on public assistance declines) with the age of the oldest child in the household. At least two explanations for this association are possible: as children become older, the earnings of fathers may also increase; and as an unmarried woman gives birth to children by different men, the likelihood that she will receive child support from at least one of them may increase. Although Bartfeld and Meyer do not find evidence of this latter effect, analyses of Wisconsin households by Maria Cancian and her colleagues (2000) suggest that both explanations have merit. In any event, the kinship relations of families formed by nonmarital child-

bearing do seem to be more complicated than relations in more traditional families, and these complexities may have implications for policies directed at families with nonmarital births.

CONSEQUENCES FOR CHILDREN AND ADULTS

Despite widespread expectations that nonmarital childbearing carries adverse consequences for the children born into these families, there is surprisingly little empirical research on the subject. The next two chapters in this volume attempt to fill this gap. In chapter 9, Sanders Korenman, Robert Kaestner, and Theodore Joyce examine outcomes during infancy and early childhood, and outcomes during adolescence and early adulthood are the subject of chapter 10 by Robert Haveman, Barbara Wolfe, and Karen Pence.

Both sets of authors are sensitive to the fact that women who give birth outside of marriage tend to be more disadvantaged than their married counterparts. Indeed, a central difficulty in interpreting the association between nonmarital fertility and child outcomes is determining whether an observed association is causal or an artifact generated by unobserved factors that may predate the birth of the child. Korenman, Kaestner, and Joyce address this issue by employing fixed-effects models that use sibling and cousin comparisons, which control for unobserved factors common to siblings or cousins, and by employing models that assume that unintended births represent an exogenous fertility shock relative to intended births. By contrast, Haveman, Wolfe, and Pence employ a random-effects probit model, which allows outcomes for children from the same family to be correlated.

Korenman and his colleagues find that nonmarital births are far more likely to be reported as unintended than are marital births, but that this difference accounts for very little of the differential in parenting behaviors, infant health, or child development observed for marital and nonmarital births. Controlling for unobserved factors common to siblings or cousins further reduces this difference, sometimes substantially. Their results speak less clearly, however, on the effects of an out-of-wedlock birth on child development. In models that ignore unobserved factors common to siblings or cousins, they find sizable and significant disadvantages for children born outside of marriage, but the estimates of these effects lose

statistical significance in models with family fixed-effects. The difficulty is that the effect of being born to a never-married woman remains sizable; hence, it is unclear whether the large but statistically insignificant estimates in their fixed-effects models are due to the absence of a true effect or to the lack of statistical power. They obtain similar results from models that assume that unintended births represent an exogenous fertility shock. As a result, Korenman and his colleagues conclude that the “evidence for an effect of being born to a never-married woman on child development is mixed.”

In chapter 10, Haveman and his colleagues examine whether being born to an unmarried mother raises a woman’s propensity to bear a child out of wedlock herself or lowers the likelihood of completing high school. Like Foster and Hoffman, they ask if consequences may vary with the age of the respondent’s mother, and if disadvantage may be particularly severe for children of the youngest mothers. Their findings suggest that the factors influencing education completion are distinct from those influencing childbearing outside of marriage. Children born outside of marriage are less likely to complete high school than children born within marriage, regardless of their mother’s age. Thus, mother’s marital status is a more potent predictor than her age in accounting for whether her children will complete high school. By contrast, children born to young mothers are much more likely to have a teen nonmarital birth than children born to older mothers, an association that holds for children born both within and outside of marriage. Thus, mother’s age, as opposed to her marital status at birth, is the more potent predictor of whether her daughter will give birth to a child as an unmarried teen. These findings point to the intergenerational transmission of *early* family formation, but not to the intergenerational transmission of *nonmarital* childbearing. The latter finding may appear surprising, but my colleagues and I (Wu and Martinson 1993; Wu 1996) reached an identical conclusion in analyses of two data sources different from that used by Haveman and his colleagues.

The next two chapters look at the consequences of a nonmarital birth for adults. Both chapter 11 by Daniel Lichter and Deborah Graefe and chapter 12 by Dawn Upchurch, Lee Lillard, and Constantijn Panis ask the same question: Are unmarried women who give birth less likely to marry after the birth than their unmarried counterparts who have not given birth outside of marriage? Lichter

and Graefe also ask whether a nonmarital birth affects a woman's subsequent likelihood of entering a cohabiting union, while Upchurch, Lillard, and Panis ask whether a nonmarital birth affects the stability of marital unions for those women who marry after the birth.

As in previous chapters, a central difficulty lies in establishing whether an observed association is causal. Both sets of authors are sensitive to this problem, but they adopt quite different approaches to it. Lichter and Graefe supplement estimates from standard regression models with two additional sets of estimates that compare pregnancies of unwed women that are brought to term with those that are aborted or resulted in miscarriages, and that compare unwed mothers whose children reside in their household with unwed mothers whose children do not live with them. Upchurch, Lillard, and Panis use a simultaneous equation hazard model, which allows unobserved factors to be correlated across equations for marriage, marital dissolution, fertility, and education. These models, they argue, help control for the endogeneities between these joint processes and for the resulting differential selection into marital and fertility statuses.

Despite quite different data and methodological approaches, the two chapters obtain remarkably similar results. Upchurch and her colleagues find considerable evidence of endogeneities between the processes underlying marriage and fertility. Their results imply that nonmarital childbearing depresses marital prospects in both direct and indirect ways. That there are indirect effects suggests that women are differentially selected into motherhood while unmarried and that this plays a substantial role in their subsequent marital prospects. Lichter and Graefe, similarly, report evidence that a nonmarital birth lowers a woman's subsequent prospect of entering a marital union, although they find no significant effect on her subsequent prospects of entering a cohabiting union. Taken together, these results shed useful light on the important issue of the union and marital formation patterns of women who have had a child outside of marriage. Marriage and cohabitation are ways in which women may respond to the prospect of raising a child as a single parent. Indeed, these alternatives are likely to be even more germane to women under a TANF policy regime, in which time limits on benefits may influence their marriage and fertility decisions.

The last two chapters are by Shelley Lundberg and Andrew Cher-

lin and represent the disciplines of economics and sociology, respectively. The conference organizers approached these two distinguished social scientists to serve as rapporteurs for the conference papers, and we are exceedingly fortunate to have their responses. Lundberg and Cherlin reflect more generally on the questions raised in this volume and on a variety of empirical issues about which we know less than we should. They describe the broader social context in which nonmarital childbearing might be situated, and glean the policy lessons (and dilemmas) implied by the empirical findings assembled in this volume.

NOTE

1. There is, as yet, no consensus within the research community on whether PRWORA has in fact played a major role in arresting the steady increase in nonmarital childbearing. It is important to note that much of what appeared in PRWORA had roots in earlier welfare experiments undertaken in individual states. With this in mind, some researchers have found (Horvath-Rose and Peters 2000) that at least some of the variation across states and time in nonmarital childbearing can be linked to the timing of waivers issued by the federal government to states. There are, however, substantial grounds for caution. Horvath-Rose and Peters find that time limits on welfare benefits and work requirements by states had surprisingly little effect on nonmarital childbearing and that even the effect of family caps and AFDC-UP waivers were small relative to trends during this period. Similarly, Klerman and Haider (2000) find that even such seemingly obvious consequences of PRWORA, such as the quite precipitous drop in welfare rolls, may not be causally related to PRWORA provisions such as time limits on welfare benefits.

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