

“Culture” and the Intergenerational Transmission of Poverty: The Prevention Paradox

Jens Ludwig and Susan Mayer

Summary

Many U.S. policymakers support changing the “culture” of poor parents to encourage marriage, work, and religion as a means to end the intergenerational transmission of poverty. In this article Jens Ludwig and Susan Mayer review and evaluate research on how parental work, marriage, and religion affect children’s socioeconomic status as adults, as well as on the likelihood that changing these indicators of parental behavior will reduce poverty in the next generation. They conclude that even if policymakers were able to ensure that all children had married, working, and religious parents, the result would be a far smaller reduction in poverty among the children’s generation than many people believe.

The explanation for this “poverty-prevention paradox,” say Ludwig and Mayer, is that the poverty rate in the children’s generation depends not only on how many poor children grow up to be poor adults, but also on how many nonpoor children grow up to be poor adults. Reducing the chances that poor children become poor adults will dramatically lower future poverty rates only if most poor adults begin life as poor children. But most poor adults grow up as nonpoor children in the type of “pro-social” households that policymakers are pushing to attain. Moreover, little good evidence supports the idea that such parental behaviors as marriage, work, and religious adherence have strong causal effects on children’s long-term economic success.

The authors argue that encouraging positive social behaviors in the parents of poor children is a worthwhile goal in its own right. But they stress that policymakers should recognize the limits of this strategy for reducing poverty among future generations. There may be no substitute for a system of social insurance and income transfers for those children who do wind up poor as adults.

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Throughout history, societies around the world have been poor, with inadequate educational opportunities and with socially excluded people. Those same societies have been remarkably successful at ensuring that almost all children came into the world with two biological parents committed to their care. That's the difference between societies with small underclasses (for every society has had an underclass) and with large ones.

Charles Murray, 2005

A primary goal of contemporary U.S. social policy is to reform the “culture” of poor parents to make it less likely that their children will grow up to be poor. Because the indicators of culture that policymakers usually emphasize are marriage, work, and religion, in this paper we assess how much poverty rates in the children’s generation would fall if all children had married, working, and religious parents. Research in this area is less informative than one might expect. Little empirical research estimates the relationship between parents’ marriage, work, and religion and children’s eventual income as adults, and in our view much of that research is seriously flawed. Our own estimates show that changing these three aspects of family culture will reduce poverty in the children’s generation much less than many policymakers, policy analysts, and voters seem to believe.

The public’s concern about intergenerational economic mobility appears to spring from a desire to see that children are not condemned to a lifetime of poverty just because they were born to poor parents. Many public discussions assume (as the quote above suggests) that reducing poverty among future generations and

reducing the intergenerational transmission of poverty are equivalent goals. They are not. The poverty rate in the children’s generation depends not only on how many poor children grow up to be poor adults, but also on how many nonpoor children grow up to be poor adults. Reducing the chances that poor children become poor adults will dramatically lower future poverty rates only if most poor adults begin life as poor children. Even if parental work, marriage, and religion improve children’s economic future as adults, getting all parents to work, marry, and attend religious services would not cause poverty to plunge in the next generation because most poor adults do not grow up in families headed by parents who are unmarried, do not work, and do not attend religious services.

Epidemiologists often encounter a similar problem in fighting disease.¹ As Geoffrey Rose puts it, “a large number of people at a small risk may give rise to more cases of disease than the small number who are at high risk,” which limits what might be accomplished by focusing on high-risk cases.² Public policies that seek to end tomorrow’s poverty by changing today’s parental culture encounter a similar problem. We call this the poverty-prevention paradox.

Public Policy and the Intergenerational Transfer of Poverty

Policy proposals to reduce the intergenerational transfer of poverty focus on three broad areas: schools, neighborhoods, and families. Cecilia Elena Rouse and Lisa Barrow discuss the role of schools in their article in this volume. We briefly discuss research on the relationship between children's neighborhoods and their economic success as adults before turning to the role of families, particularly the relationship between parents' marital status, work, and religion and their children's chances of being poor as adults.

Neighborhoods

Surprisingly little is known about the effect of children's neighborhoods on their economic status as adults. Most researchers focus on how neighborhoods affect child or adolescent outcomes—outcomes that are only modestly correlated with the children's economic status as adults.³ In addition most of the research is "nonexperimental"—that is, its subjects are not randomly assigned to different neighborhood environments. Instead, the research simply compares children whose families live in different neighborhoods. Such an analytical approach, however, risks finding links between the children's outcomes and the neighborhoods themselves when the outcomes are instead due to something about the parents who choose to live in certain neighborhoods.⁴ A different approach taken by some researchers is to consider the correlation, or similarity, in outcomes of children growing up within a few blocks of one another. One study found that the correlation in the years of schooling of children living in the same neighborhood is around 0.1 (where perfect correlation would be 1), which suggests a fairly limited role for neighborhood influence—at least on average across a nationally representative sample.⁵

Even if neighborhoods have little effect on average, the consequences of growing up in America's most disadvantaged urban communities could be important for those at the bottom of the income distribution—a possibility that has generated particular concern in public discussions.⁶ Yet even here the influence of neighborhoods on many childhood outcomes may be surprisingly modest, at least according to available data from the U.S. Department of Housing and Urban Development's Moving to Opportunity (MTO) demonstration. The MTO program overcomes the self-selection problem by randomly assigning low-income, mostly minority families into groups that are offered different forms of treatment. It thereby creates substantial differences in neighborhoods among otherwise comparable groups of poor parents and children.

Although evaluations of MTO after four to seven years find that moving to less disadvantaged communities reduces risky and criminal behavior in girls, they find that such moves on balance increase these behaviors in boys and have no detectable effects on children's academic performance, such as achievement test results or the chance of dropping out of high school.⁷ It is possible that the benefits of moving away from very disadvantaged neighborhoods may become greater over time, or that the benefits may be more pronounced among children who were very young when they moved.⁸ But there is as yet no strong evidence that moving poor families to less disadvantaged areas will substantially change children's life chances.⁹

Families

If moving children to better neighborhoods is unlikely to improve their lives significantly, it is reasonable to contemplate making changes in the families in which children are raised.

Historically, recognizing that serious material deprivation could hurt children's life chances, antipoverty policy focused on changing the family environment by providing income transfers to poor families.¹⁰ But as the number of single mothers increased and welfare rolls began to grow, policymakers turned their attention to trying to discourage out-of-wedlock childbearing and to encourage mothers to work outside the home. The welfare reform legislation signed by President Bill Clinton in 1996 explicitly bases the need for attention to these two issues on their presumed effect on children's life chances.¹¹ As Douglas Besharov notes, for most Americans welfare reform "was about reducing the deep-seated social and personal dysfunction associated with long-term dependency, *thereby ultimately reducing poverty*. For welfare reform to be a success on this measure will depend on whether the low-paying jobs taken by many women leaving welfare lead to better jobs, whether the household arrangements (and other sources of support) that have allowed mothers to leave welfare without working prove supportive and nurturing, and whether the eventual result is less dysfunctional behavior among parents and better outcomes for children."¹²

More recently many commentators aiming to change the "culture of poverty" have added another goal: religious adherence. Senator Rick Santorum, chairman of the Senate Republican Conference, has said apropos of faith-based social welfare programs, "The whole idea of funding people of faith is not just to provide good human services. It's also to provide good human services with that additional touch, if you will, with that aspect of healing that comes through that spiritual interaction. . . . You can't ignore the importance of the spiritual part of someone's life and say you're going to solve their problems. You're

throwing good money after bad."¹³ The importance of religion in addressing poverty, like the promotion of work and marriage, inspires bipartisan agreement. In discussing faith-based social welfare programs several years ago, then-Vice President Al Gore argued that their "religious character . . . is so often key to their effectiveness," although he noted that the government's job would not be to promote "a particular religious view."¹⁴ Commentator William Raspberry notes, "Many of the problems that are most difficult to get at in our society today have to do with changing attitudes. . . . There are people who do these things and some of the most successful ones are those who go to changing the person from the inside. Religious organizations may be better equipped than most organizations to do that kind of thing."¹⁵

Public debates on antipoverty policy devote more attention to changing parental culture than to approaches that would change specific parenting practices.¹⁶ Such debates also give relatively little attention to another family-oriented strategy that is beyond our focus: replacing rather than changing the child's home environment, for example, by sending the child to preschool and before- and after-school programs.¹⁷ As David Brooks notes, recently conservatives "have had free rein to offer their own recipe for social renewal: churches that restrain male selfishness, decency standards that check hedonism, social norms that discourage childbearing outside of wedlock. . . . Daniel Patrick Moynihan observed that the core conservative truth is that culture matters most [for poverty], and that the core liberal truth is that government can reshape culture."¹⁸

In the next section we discuss in more detail the ways in which parental work, marriage, and religion—the most common indicators of

"culture"—may affect children's educational attainment and future income, and we review what researchers have found about the likelihood that changing each of these indicators will reduce poverty in the next generation. Consistent with the beliefs of many policymakers, some research has documented large correlations between whether children lived in a two-parent family—or lived with at least one parent who worked—and their schooling and adult income. The simple correlation between parents' religious participation and children's schooling and income is less strong and less consistent. There is, however, little evidence to date that any of these relationships are causal—that, for example, living in a two-parent family in and of itself raises a child's educational attainment. We then consider what would happen to poverty in the children's generation if one could substantially change these indicators of culture among today's parents. Finally we discuss the implications for public policy.

The Effects of Parental Work, Marriage, and Religious Adherence on Children

Research on the relationship between parents' religious adherence, family structure, and employment and their children's schooling and future income is hampered by three problems that make definitive conclusions impossible.

First, little research directly examines the relationship between these parental characteristics and the *adult income* of children. Policymakers often generalize from links between these parental characteristics and young children's outcomes to the links between these characteristics and children's schooling or income as adults, even though the relationships between young children's outcomes and adult schooling or income are

generally modest. Second, little research exists about the *causal* rather than the correlational links between these parental characteristics and children's adult outcomes, and studies that do try to assess causality produce conflicting results. Third, in policy debates and in some research, religion, family structure, and employment are treated as though they were dichotomous—religious or not,

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married or not, working or not. But each is much more complicated. For example, among the many alternatives to the two-married-parent household are a household headed by a single female, a household with a stepfather, or a long-term cohabiting relationship. Policymakers and researchers must identify carefully the terms of their comparisons in their claims about what is good for children.

Do Religious Parents Increase Children's Schooling and Adult Income?

Policymakers who encourage religion or religiosity among parents as a way to help children avoid poverty in adulthood believe that the moral content of religion leads both children and parents to behave in ways that pro-

mote children's future economic well-being. According to this view, religious belief provides a moral compass that leads children away from teenage childbearing, delinquency, drug and alcohol use, and other behaviors that can lead to a life of poverty. At the same time religion instills a work ethic, honesty, and other characteristics valued by employers, making it more likely that when children grow up they will get and keep a job.

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Religious parents will stay married and avoid behaviors that lead to the kinds of family dysfunction that hurt children's life chances. Thus, parents' religion can enhance children's future economic well-being by encouraging parents to behave in ways that benefit the children and by passing on religious attitudes to the children.

Ideally, to assess the relationship between parents' religion and children's adult income or educational attainment one needs a meaningful measure of parents' religion and a long-term data set that allows one to link a child's religious environment with his or her adult outcomes. One must also be able to control all the factors that are correlated with parental religion that might also affect children's eventual income and schooling. For example, parents who are more motivated and able to attend religious services may also be more likely

to participate in school events or other activities that enhance their children's outcomes. No research achieves this standard.

An even more basic issue with which research in this area must grapple is determining what aspect of parents' religion—affiliation, denomination, or intensity—might have the greatest effect on their children's outcomes. As yet there is no agreement on this point. Thus it is not always clear exactly what policymakers mean when they talk about religion as a way to end poverty. But clarity on this point is important, because trends in religious belief, denominational membership, and intensity of religious observance are not the same, and they may have quite different effects on children.¹⁹

Right now, the main policy mechanism for encouraging religion or religiosity seems to be public funding for religious organizations to provide social services. Religious groups have always played an important role in aiding the poor in the United States, although that support has historically been mostly separate from government aid. The federal government's direct support of religious social services started with the "charitable choice" measures signed into law by President Clinton between 1996 and 2000 to keep religious organizations from being excluded from competition for federal funds simply because they are religious.²⁰ President George W. Bush's "faith-based initiative" aims to expand the ability of faith-based organizations to compete for federal funding. One effect of these policy changes is to reduce the "cost" to individuals of religious participation: it requires less effort for people to receive religious messages when they are already at the local church, mosque, or synagogue for job training, drug abuse treatment, or other services. Although policymakers say that they uphold

the value of religious choice, and hence that they do not mean to influence the denomination that individuals choose, denomination is still an important aspect of religion and it may be inadvertently influenced if the government funds religious social services.

Low-income Americans are already more likely than high-income Americans to identify with a religious denomination, attend church, and pray often. In the General Social Survey, respondents whose income is below the mean for all Americans are more likely to identify with a religion than respondents whose income is above the mean; in fact, 91.2 percent of respondents whose family income is below the mean claim a religious affiliation. Respondents whose income is below the mean attend religious services at about the same rate as those whose income is above the mean.²¹ African Americans are more likely to identify with a religion and to have greater religious intensity than whites. Yet African Americans have incomes that average only about half the incomes of whites.²² These descriptive statistics raise questions about the extent to which "finding religion" would reduce poverty in the next generation, although they are of course far from conclusive evidence about the causal effects of religion on poverty.

Two studies estimate the relationship between parents' religious denomination and children's adult income. One, by Nigel Tomes, finds that parental religious denomination has no effect on children's income as adults once parental education is accounted for.²³ The other, by Todd Steen, finds that net of their own education and labor market experience, adult sons raised in Jewish and Catholic homes earn more than children raised in Protestant homes, and that adult children raised in families with no religious

affiliation earn about the same as those raised in Protestant homes.²⁴

Several studies consider the relationship between an adult's religious affiliation and his or her own income. The incomes of adults who identify with any religion are no higher than those of adults who identify with none.²⁵ This conclusion, which holds even after taking into account the effects of family background, is consistent with the simple descriptive statistics already noted. But Jews have higher incomes and more schooling than members of other denominations, while members of theologically conservative Christian denominations (fundamentalist, Pentecostal, or sectarian religions) have lower incomes and less schooling.²⁶ One study finds that whether boys attended religious services at least twice a month had a small and statistically insignificant association with their eventual earnings.²⁷

The religiosity of adults also appears to be linked with their own income and schooling, at least in some studies. Bruce Sacerdote and Edward Glaeser find that people with more schooling attend church more often than those with less schooling: 50 percent of college graduates, but only 36 percent of high school dropouts, attend church "several times a year."²⁸ But members of the most highly educated denominations attend church least often, and members of the least educated denominations attend most often. Sacerdote and Glaeser explain this puzzle by noting that education reduces the intensity of religious belief, so that people sort into less fundamental religions as they get more schooling. This observation does not tell us whether children raised in families that adhere to fundamental religions get less schooling, but it does suggest, consistent with Tomes's findings regarding religious mobility, that as such children

get more schooling they are likely to switch to less fundamental denominations.²⁹ If adults sort across denominations based on their schooling, the correlation between adults' education and their religious affiliation cannot be used to infer the relationship between parental religion and children's education.

The research discussed so far is unable to project what would happen to children's

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eventual income if some outside force caused their parents to become more religious, because it is unable to isolate the causal influence of religion. Many factors that cause parents to be religious—motivation, sociability, good physical and mental health, access to good public or their own private transportation—can also affect their own income and their children's future income.

Jonathan Gruber tries to assess the causal influence of religion by looking not at the effect of a family's own religion but instead at the effect of living in geographic areas where religion is concentrated.³⁰ Gruber uses ancestry in an area as a predictor of religious density. Thus an Italian living in an area with many Poles lives with a greater density of Catholics than an Italian living in an area with many Swedes. Gruber finds that adults are much more likely to participate in religious activi-

ties when they live in areas where a larger fraction of people share their religion. People who live in such areas are also more likely to graduate from college and to have higher incomes. As Gruber acknowledges, the fact that greater religious density appears to lead to better outcomes among adults does not mean that the individual's religion or religious intensity leads to the better outcomes. Characteristics of more homogeneous communities or the social benefits provided by religious institutions may lead to these better outcomes. For example, people trust people who are like themselves more than they trust people different from themselves. It may be trust and other aspects of community, not religion, that lead to greater integration and better outcomes for adults and children. Gruber's work suggests that a highly religiously segregated society would produce better outcomes than a society that is equally religious but less segregated. But religious segregation might be costly in other ways, especially because religion is correlated with race and income. Gruber also finds evidence that high religious density leads to more intense religious beliefs, an effect that recent history suggests may not be unambiguously beneficial.

In sum, because people can choose whether to follow a religion, what religion to follow, and how enthusiastically to follow it, religion may be both a cause and an effect of many individual and family characteristics that affect children's lives. It is hard to separate the effects of factors that cause not only parents' religious affiliation and intensity but also their children's outcomes from the effect of religion itself. Almost no research does a good job of this. Moreover most children are already raised in families that identify with some religion, poor families are no less likely than rich families to identify with a religion,

and children who are raised in families with no religious affiliation are likely to grow up to identify with some religion.³¹

Do Married Parents Improve Children's Schooling and Adult Income?

Growing up with married parents has long been correlated with a litany of positive child outcomes—a fact often cited by supporters of policies that promote marriage.³² Many recent studies take into account the effects of family background to try to establish more closely the causal relationship between parents' marital status and children's outcomes. That analytical approach sometimes diminishes the link between parents' marital status and children's outcomes—a finding often cited by observers skeptical of policies that promote marriage.

Little research estimates the relationship between parents' marital status and their children's adult income. Moreover, researchers have no reliable way to estimate causal models of the effect of parents' marital status, and they have not been consistent in defining and measuring marital status. As a result there is little good empirical basis for estimating the likely outcome of policies that encourage marriage.

The one study that does estimate the relationship between parents' marital status and adult poverty of their children finds that having unmarried parents during childhood has no statistically significant effect on the probability of being poor at age twenty-four, regardless of whether the parents were divorced, separated, or never married.³³ The model attempts to isolate the effect of marital status by taking into account effects caused by parents' education, religion, and national origin. But such models do not necessarily provide better estimates about the causal ef-

fects of parents' marital status than simple correlations do, because they can still leave out many factors that are related to both parents' marital status and children's outcomes, thus biasing the estimates either up or down.³⁴ In addition, these models often take into account the effects of factors that are arguably caused by the parents' marital status. Family income is a case in point; but income often declines when families break up. If low family income is a result of parents' marital status, its effect should not be excluded in estimating the overall effect of parents' marital status on children. Doing so probably biases the effect of single parenthood downward.

When Charles Manski and several colleagues estimated the effect of family structure during childhood on high school graduation, using a variety of methods to take into account the way adults self-select into different types of family arrangements, they found that the estimates depended on how they took into account this self-selection.³⁵ Some researchers have used parental death as a quasi-experiment to examine whether parental absence hurts children's outcomes. Parental death is assumed to be random or at least less correlated than divorce with unobserved parental characteristics. These studies typically find that a parent's death has effects that are modest or nonexistent, and certainly much smaller than those that have been estimated from parental divorce.³⁶

There are many types of family structures, and families can transition from one to another. Thus to argue that one type of family structure is beneficial to children requires clearly specifying the alternative family structure that one has in mind. Most people seem to agree that living with married biological parents is ideal for children. Research supports the claim that children raised by only

one biological parent fare worse than children raised by both biological parents in many areas, including their schooling and mental health.³⁷ Anne Case, I-Fen Lin, and Sara McLanahan find that in a sample of children living in married-couple families, step-, adopted, and foster children averaged one year less of schooling than the biological children of the same mothers.³⁸

On the other hand, many policymakers seem to believe that living with a never-married single mother is the worst family structure for children. But several studies suggest that being raised by a step-parent may be worse for children's educational attainment than being raised by a single mother, regardless of whether the mother has never married or is divorced.³⁹ Although these studies take into account the effects of several important characteristics of parents and children, such as parent education or race and ethnicity, none tries to take into account the possibility of unobserved characteristics that may confound the link between family structure and child outcomes.

From the research on family structure, we draw two conclusions. First, on average children who grow up with two married biological parents get more schooling and earn higher wages than children who grow up in any other family type. And second, children raised in families with a step-parent get no more schooling and may get less schooling than those raised by their single biological mother. But the degree to which these patterns reflect the causal impacts of the family structure on children's life chances is not well understood.

Do Working Parents Improve Children's Schooling and Adult Income?

The intent of the welfare reforms of the 1990s was to get single mothers into the labor

market to increase family income, reduce reliance on welfare, and provide a role model for children's eventual work habits. Some people also argued that work would be a disciplining and integrating experience, making these mothers happier and more self-confident and thus also benefiting their children. Others thought that for the most disadvantaged children, outside child care would provide a better environment for social and cognitive development than their own home. At the same time, many supporters of welfare reform and work requirements argue as a general principle that maternal work outside the home will impair the social and cognitive development of at least young children. Thus many policymakers hold that young children should live in a home with married parents, one of whom works (the father) and one of whom stays home with the children (the mother)—the idealized traditional family of the past. But when that ideal cannot be met, the custodial parent should work both because it is better for children to have one working parent—because work and self-sufficiency are morally desirable—and because it lowers the cost to governments that might otherwise have to support the family.

According to this reasoning, children in married-couple families will be worse off if their mothers work than if they do not, and children in single-mother families will be better off if their mothers work than if they do not. And children of working single mothers will do worse than children of married mothers who do not work. It is not clear whether children of working single mothers would do better or worse than children of married mothers who work.⁴⁰ We could find no study that estimates the effects of maternal work on children's schooling or eventual income. In fact, we could find no research that estimates the effect of parental or maternal employ-

ment on children’s income as adults. Most of the research estimates how maternal employment affects young children’s cognitive skills.⁴¹ Although the results are mixed, the most recent and usually the best of these studies find that maternal employment during a child’s first year slightly impairs the child’s cognitive skills.⁴² The findings for maternal work during the child’s second and third years are less conclusive.⁴³

The evidence on the relationship between maternal employment and young children’s cognitive test scores is not strong, and there is little consensus about whether effects found for preschoolers are maintained as children get older.⁴⁴ Nonetheless, one can use this evidence to do a back-of-the-envelope calculation of the potential importance of maternal employment for wages in the next generation to demonstrate how a relationship found for young children translates into an adult outcome. If we assume that the higher-end estimates of the effect of maternal employment on a child’s cognitive skills during his or her first year of life are correct, that these effects are causal, and that they are maintained into the child’s adulthood, we can calculate that mothers’ employment in the child’s first year of life, through its effect on cognitive skill, would decrease future wages for white children by about 4 percent and leave unchanged the wages of black and Hispanic children.⁴⁵ Thus maternal employment is not likely to have any noticeable effect on poverty in the next generation through its effect on cognitive test scores.

One study that assesses the relationship between parental and children’s work ethic finds that parents and children work similar numbers of hours and that the similarity is only partially accounted for by similar labor market conditions.⁴⁶ Parents pass on prefer-

ences for work hours through their modeling of work behavior or through other factors. This research is at least consistent with the idea that children model their work habits on their parents’ work habits.

Two public policy changes during the 1990s provide a useful “natural experiment” for examining the effects of an externally imposed

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increase in employment among single mothers. The first, the 1996 welfare reforms, implemented work requirements for welfare recipients. In principle, the experimental evaluations of these work requirements—that is, the evaluations that sort study participants by random assignment and thus are the gold standard of research—should provide the most direct evidence about how policies that encourage (or require) work affect disadvantaged children. The second change, the increasing generosity of the federal earned income tax credit, also encouraged many single mothers to increase their work effort.⁴⁷

Research documenting how these policies affect the work activity of single mothers is extensive.⁴⁸ Far less research, however, documents how changes in the mother’s work activity change child outcomes. The most recent and most comprehensive synthesis, by

Jeffery Grogger and Lynn Karoly, examines sixty-seven studies based on either random-assignment experiments or econometric techniques intended to control for unobserved characteristics that might confound the link between work activity and child outcomes—in other words, techniques intended to approximate the rigor of the random-assignment experiments. For our purposes, the two outcomes of most interest are academic achievement and behavior problems in adolescents.⁴⁹ Grogger and Karoly's synthesis suggests that welfare reforms that increased mother's work effort either increased the behavior problems of adolescents and reduced their academic achievement or had mixed effects, depending on the specific policy. (These same reforms sometimes had opposite effects on younger children's outcomes.) This evidence should be interpreted cautiously both because the number of studies examined was modest and because all evaluated relatively short-term effects before welfare time limits were implemented. (These limits restrict the total amount of time women can spend on welfare, and so may increasingly push a different, and particularly disadvantaged, population of low-income women into the labor market.) Nonetheless this research suggests that policies that encourage poor single mothers to work probably do not improve the behavior or school achievement of their adolescent children.

Overall we can draw three conclusions about the relationship between maternal work and children's achievements. First, the evidence does not yet allow us to assess whether mothers' employment has different effects on children's schooling or future income depending on whether the mothers are married or single parents. Second, most evidence about how maternal employment affects children's outcomes suffers from methodological problems

serious enough to limit its usefulness for policy purposes. And third, studies that evaluate programs to encourage work among low-skilled single mothers suggest that increasing their employment is not unambiguously beneficial for their children's schooling or behavior.

The Poverty-Prevention Paradox

Even if parents' culture as indicated by marriage, work, and religion had a causal effect on children's schooling and adult income—which is uncertain—encouraging parents to marry, work, and become religious would do far less to reduce poverty among future generations of American adults than most policy-makers believe. The reason for this conclusion is that children who grow up with parents who are married, working, and religious also face some risk of experiencing poverty as adults. Therefore even successful efforts to change parental behavior or culture among "high-risk" families will have surprisingly modest effects on poverty in the next generation. We term this the poverty-prevention paradox.

To illustrate the paradox, we estimate the expected poverty rates in adulthood of children who grow up with their biological fathers and those who grow up apart from them. We use data from the U.S. Department of Education's National Education Longitudinal Study (NELS) of 1988, which interviewed a nationally representative sample of eighth graders in 1988 and then again in 2000, when participants would have been around twenty-five years old.

According to these data, eighth graders who were living apart from their biological fathers had an expected poverty rate of 16.6 percent when they were twenty-five. In contrast, the poverty rate for eighth graders who were living with their fathers was 9.9 percent. The

powerful association between growing up without one’s father and being poor as an adult has led many people to conclude that addressing “culture” is the key to reducing poverty in America.

However, the contribution of fathers’ absence to overall poverty in the next generation depends not only on the difference in the poverty rates but also on the relative size of these two groups of children. According to the NELS, in 1988, 28 percent of eighth graders were living apart from their biological fathers and 72 percent were living with their fathers. To determine the contribution of each group of children to the overall poverty population in the next generation, we multiply the proportion of children in each family type by the poverty rate for each group by the total number of children in the population. For example, consider a population of 10,000 children (2,800 of whom are raised apart from their biological father and 7,200 of whom are raised with their father). Using the numbers from the NELS data, we see that about 465 children from father-absent families would be poor at age twenty-five ($0.28 \times 0.166 \times 10,000$) as compared with 713 children from father-present families ($0.72 \times 0.099 \times 10,000$). Note that despite their higher poverty rate, children from father-absent families would account for only 39.5 percent of poor adults (465 divided by 1,178).

Next, we calculate what the size of the poverty population would be if all eighth graders had lived with two biological parents in 1990. Using the same formulas as above and assuming that the poverty rate for all children was the same as the poverty rate of those living with both biological parents, we find that about 990 adults would be poor in the next generation ($10,000 \times 0.099$), a reduction of 188 poor people. Despite the powerful link

between family structure and children’s chances of being poor as an adult, ensuring that every single eighth grader in the United States lived with his or her biological father would eliminate only around 16 percent (188 divided by 1,178) of poverty in the children’s generation—even assuming that the effect of living with one’s father is entirely causal, which it almost certainly is not.

The contribution of fathers’ absence to overall poverty in the next generation depends not only on the difference in the poverty rates but also on the relative size of these two groups of children.

This perhaps surprising conclusion holds for our other measures of parent culture as well. For example, similar calculations using NELS data show that ensuring that all eighth graders lived in a household with at least one working adult would lower poverty in the children’s generation by 7 percent. Ensuring that all eighth graders participated in religious services would cut poverty in their generation by 9 percent. If eighth graders lived with their biological parents, at least one parent worked, and the child attended religious services, poverty in their generation would fall by 22 percent, assuming that the effects of these indicators of culture on children’s poverty status are entirely causal.

One potential limitation of these estimates is that the indicators of culture are measured only in the eighth grade. But even when we use data from the Panel Study of Income Dy-

namics (which follows children for a longer period than the NELS) to measure these family environments over several years rather than just at a single point in time, poverty in the children's generation does not decline much. It is possible to generate calculations indicating that changing "culture" would cut future poverty dramatically. If no child ever spent time in a household that did not have two married adults, at least one of whom was working, and that did not attend weekly religious services—and if these factors all had a causal effect on the child's chance of being poor—poverty in the children's generation would fall by as much as three-quarters. But setting such a high bar for the "pro-social" ideal would mean that the large majority of American households would not meet this standard and would assume that government interventions were capable of completely eliminating, without exception, such features of modern American life as divorce, job changes, and the choice not to attend religious services each and every week.⁵⁰

Policy Implications

Many policymakers believe that they could largely eliminate poverty in America if only they could increase parental attachment to mainstream institutions such as work, marriage, and religion. They assume that something about parental engagement with these institutions is associated with the capacity of families to instill in children the cognitive and noncognitive skills crucial for long-term economic success. Changing parental behavior in this way serves as an omnibus strategy for changing all the other parenting practices that matter for children.

Yet policymakers' faith that the key to reducing poverty is to encourage marriage, work, and religion among poor parents rests on a

shaky empirical foundation. Little good evidence supports the idea that these parental behaviors have strong causal effects on children's long-term economic success. Most studies on this topic focus on short-term effects on children, such as schooling, rather than on adult earnings or employment, and few studies convincingly solve the self-selection problem that plagues all research in this area. Parents who choose to get married (or work or go to church frequently) are likely to be systematically different from parents who choose not to do these things, in ways that are difficult for social scientists to observe with available data sets. As a consequence, convincingly separating out the ways in which parental marriage, work, or religion affect children from the ways in which a parent's propensity to be connected with these mainstream institutions does so is quite difficult.

Equally important is our observation that most adults who experience some economic poverty were brought up in the sort of "Ozzie-and-Harriet" households that many policymakers wish to make universal. The risk of adult poverty is indeed much lower among adults brought up in such households, but these "pro-social" households are so numerous that they wind up accounting for most poor adults. Targeting interventions to the highest-risk children is, in our view, a worthwhile goal in its own right, but policymakers should recognize the limits of this strategy for reducing poverty among future generations—the poverty-prevention paradox.

We are not arguing that a focus on high-risk behavior will never make a large dent in the overall scale of a social problem. The size of the dent that it will make will depend on how widespread the behavior is and on the strength of its association with the problem.⁵¹ If in the future there is a substantial increase

in the share of households that never attend religious services or that lack two parents or that lack at least one worker, then targeting parent culture could become more important for ending poverty in America than our estimates suggest. Although the share of births to unmarried women has been increasing over the long term, this trend has flattened out over the past ten years.⁵² Recent years have also seen substantial increases in labor force participation rates among single or never-married mothers, while rates for married mothers have changed little.⁵³ And although the share of Americans who attend religious services has been in steady decline, as in other industrialized countries, the United States still has one of the world’s highest rates of religious attendance.⁵⁴ More important for present purposes, measures of religiosity are weakly correlated with poverty.

Nor are we arguing that interventions focused on parental employment, marriage, or religious participation are necessarily a bad idea. There might be many reasons for changing these behaviors apart from the chance that doing so will reduce poverty in the next generation. The argument we make

here is not about the social benefits of an Ozzie-and-Harriet approach in relation to the costs—which is the relevant comparison for decisions about whether to support specific policy interventions—but rather about its benefits in relation to the scale of the overall poverty problem. Many policymakers believe that changing parental work, marriage, or religiosity can end poverty in America. Based on the available evidence, that prospect does not seem likely.

Our final observation about the poverty-prevention paradox that arises with the Ozzie-and-Harriet approach is in some sense similar to the conclusion of Christopher Jencks and his colleagues regarding the role of economic poverty among children.⁵⁵ If ensuring that no child is raised in economic or moral poverty cannot eliminate poverty in the future, or even make a large dent in the problem, then what can? The answer that Jencks and colleagues offered thirty years ago seems as relevant today. To reduce poverty among future generations, there may be no substitute for a system of social insurance and income transfers for those children who end up poor as adults.

Notes

1. Thanks to Philip Cook for this point.
2. Geoffrey Rose, "Sick Individuals and Sick Populations," *International Journal of Epidemiology* 14 (1985): 37.
3. For example, previous research suggests that a 1 standard deviation increase in cognitive test scores is associated with an increase in earnings of between 3 and 27 percent, with the best estimates in the 15 to 20 percent range; Christopher Winship and Sanders Korenman, "Economic Success and the Evolution of Schooling and Mental Ability," in *Earning and Learning: How School Matters*, edited by Susan E. Mayer and Paul E. Peterson (Brookings, 1999), pp. 49-78. Choosing the midpoint of the best estimates (18 percent), an intervention that increases children's cognitive test scores by 0.20 standard deviations, would increase adult earnings by $0.20 \times 18 = 3.6$ percent. Child characteristics other than test scores, such as self-esteem, efficacy, and depression, have even weaker effects on future income than cognitive test scores; Greg J. Duncan and others, "School Readiness and Later Achievement," manuscript, Northwestern University (2004).
4. For good reviews of this literature, see Christopher Jencks and Susan Mayer, "The Social Consequences of Growing Up in a Poor Neighborhood," in *Inner-City Poverty in the United States*, edited by Laurence Lynn and Michael McGahey (Washington: National Academy Press, 1991), pp. 111-86; and Ingrid Gould Ellen and Margery Austin Turner, "Do Neighborhoods Matter and Why?" in *Choosing a Better Life*, edited by John Goering and Judith Feins (Brookings, 2003), pp. 313-38.
5. Gary Solon, Marianne E. Page, and Greg J. Duncan, "Correlations between Neighboring Children in their Subsequent Educational Attainment," *Review of Economics and Statistics* 82, no. 3 (2000): 383-92.
6. Alex Kotlowitz, *There Are No Children Here* (New York: Anchor Books, 1992); LeAlan Jones and Loyd Newman, *Our America: Life and Death on the South Side of Chicago* (New York: Washington Square Press, 1998).
7. Technically the estimates discussed in this paragraph describe the effects of offering families the chance to move to less distressed neighborhoods through MTO—known in the evaluation literature as the "intent-to-treat" effect (ITT)—since not all families assigned to one of the MTO treatment groups move under the program. But if assignment to one of the MTO treatment groups has no (or at least only modest) effects on families who do not actually move under MTO, then the ITT estimates will be proportional to the effects of MTO moves on those who do make such moves—that is, the "effects of treatment on the treated," or TOT—by the fraction of families assigned to the treatment group who move under MTO. For more details about these results and methods see Jeffrey R. Kling, Jeffrey B. Liebman, and Lawrence F. Katz, "Experimental Estimates of Neighborhood Effects," Working Paper 11577 (Cambridge, Mass.: National Bureau of Economic Research, 2005); or Jeffrey R. Kling, Jens Ludwig, and Lawrence F. Katz, "Neighborhood Effects on Crime for Female and Male Youth: Evidence from a Randomized Housing Voucher Experiment," *Quarterly Journal of Economics* 120, no. 1 (2005): 87-130; and Lisa Sanbonmatsu and others, "Neighborhoods and Academic Achievement: Results from the Moving to Opportunity Experiment," *Journal of Human Resources* (forthcoming).
8. These are speculations for which there is currently not much empirical evidence. On the other hand, data for MTO participants show that moving to a less disadvantaged neighborhood reduces arrests for violent crime among male youth in the first few years after randomization, an effect that dissipates by three to four

years after assignment and gives way to a positive treatment-control difference in property crime arrests; Kling, Ludwig, and Katz, "Neighborhood Effects" (see note 7). There is no detectable evidence for age heterogeneity in MTO effects on scores on achievement tests conducted four to seven years after randomization for children aged six to twenty at the time of the tests; Sanbonmatsu and others, "Neighborhoods and Academic Achievement" (see note 7). There is also not much evidence for age heterogeneity in MTO impacts on arrests among people who were fifteen to twenty-five in the period four to seven years after randomization; Kling, Ludwig, and Katz, "Neighborhood Effects" (see note 7); see also Bernard Harcourt and Jens Ludwig, "Broken Windows Policing: New Evidence from New York City and a 5-City Social Experiment," *University of Chicago Law Review* 73 (2006): 271–320.

9. Data from the Gautreaux program in Chicago, which moved African American families in public housing to other suburban or urban neighborhoods in the Chicago area, yield suggestive evidence that mobility might have more beneficial effects over a longer term than has been observed for MTO to date; see, for example, the summary in Leonard S. Rubinowitz and James E. Rosenbaum, *Crossing the Class and Color Lines: From Public Housing to White Suburbia* (University of Chicago Press, 2001). One difference between Gautreaux and MTO is that the former generates more racial integration than does the latter. However, strong conclusions about Gautreaux's effect on families are complicated by the fact that assignment of families to neighborhoods may not have been random, and the set of families who remained in lower poverty, more racially integrated suburban communities at the time outcomes were measured may not have been a representative sample of all families initially placed in these areas.
10. The effects of increased income transfers to poor families on the life chances of poor children remain unclear; see Susan Mayer, *What Money Can't Buy* (Harvard University Press, 1997). A more recent study finds that randomized welfare-to-work experiments that offer income supplements together with work requirements yield bigger gains in children's achievement scores than do work-only programs; Pamela Morris, Greg J. Duncan, and Christopher Rodrigues, "Does Money Really Matter? Estimating Impacts of Family Income on Children's Achievement with Data from Random-Assignment Experiments," Working Paper (New York: MDRC, 2004). These results are not necessarily inconsistent with those from Mayer, since the two studies consider different interventions (cash assistance versus cash assistance plus work requirements). Additional income with work may have beneficial effects by forcing (and enabling) low-income mothers to put their children into more structured child care settings, whereas extra cash in isolation may be devoted to things that improve family well-being but not necessarily child development. Unfortunately this hypothesis cannot be tested directly within the context of the welfare-to-work experiments examined by Morris and coauthors, since no experimental program changes income without changing labor supply (so experimental assignment cannot be used to instrument for an interaction of income with maternal employment). However, suggestive support for this interpretation comes from the fact that Morris and others find combined income and work effects only on children aged two to five and not on those already of school age (six to fifteen).
11. For example, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 begins as follows: "The Congress makes the following findings: (1) Marriage is the foundation of a successful society. (2) Marriage is an essential institution of a successful society which promotes the interests of children. (3) Promotion of responsible fatherhood and motherhood is integral to successful child rearing and the well-being of children."
12. Douglas J. Besharov, "Welfare Reform—Four Years Later," *Public Interest* (Summer 2002) (emphasis added).

13. Michael Sokolove, "The Believer," *New York Times Magazine*, May 22, 2005.
14. Quoted in Dennis R. Hoover, "Charitable Choice and the New Religious Center," *Religion in the News* (Greenberg Center for the Study of Religion in Public Life, Trinity College, Hartford, Conn.) 3, no. 1 (2000).
15. To be clear, Raspberry goes on to note, "The difficulty for me is at the intersection of these [religious] things with government funding," but his remarks quoted above speak to the larger view that religious belief per se has important implications for people's life chances. Pew Forum on Religion and Public Life, "With Ben Franklin's Blessing: A Primer on 'Faith-Based Initiatives,'" www.pewforum.org/events/index.php?EventID=83 (accessed January 25, 2006).
16. For a good review of this literature, see Jeanne Brooks-Gunn and Lisa Markman, "The Contribution of Parenting to Ethnic and Racial Gaps in School Readiness," *Future of Children* 15, no.1 (2005): 139–68.
17. For a good review of early childhood programs, see Katherine A. Magnuson and Jane Waldfogel, "Early Childhood Care and Education: Effects on Ethnic and Racial Gaps in School Readiness," *Future of Children* 15, no.1 (2005): 169–96. Evidence on early childhood programs' long-term effects during adulthood includes Eliana Garces, Duncan Thomas, and Janet Currie, "Longer-Term Effects of Head Start," *American Economic Review* 92, no. 4 (2002): 999–1012; Frances Campbell and others, "Early Childhood Education: Young Adult Outcomes from the Abecedarian Project," *Applied Developmental Science* 6, no. 1 (2002): 42–57; Jens Ludwig and Douglas Miller, "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design," Working Paper 11702 (Cambridge, Mass.: National Bureau of Economic Research, 2005); and Lawrence J. Schweinhart and others, *Lifetime Effects: The High/Scope Perry Preschool Study through Age 40* (Ypsilanti, Mich.: High/Scope Press, 2005). On tutoring programs, most of what is known comes from a randomized experimental evaluation of perhaps the most famous such program, Big Brothers/Big Sisters; Joseph P. Tierney and Jean Baldwin Grossman, *Making a Difference: An Impact Study of Big Brothers/Big Sisters* (Philadelphia: Public / Private Ventures, 2000). While this study found encouraging differences in self-reported behavior between tutored and control youth, there remains some uncertainty about whether this evaluation captures tutoring effects on youths' willingness to engage in or self-report problem behaviors. Very little is known about the effects of such tutoring programs on the long-term adult economic outcomes of participants.
18. David Brooks, "Dollars and Sense," *New York Times*, January 26, 2006, p. A23.
19. For example, the share of Americans claiming that they do not believe in God increased from 1.5 percent in 1988 to 2.9 percent in 2000, but the proportion who have no doubt that God exists also increased, from 64 to 66.2 percent, and the share reporting that they had no religion or denominational preference has been largely unchanged for a decade; Michael Hout and Claude Fischer, "Why More Americans Have No Religious Preference: Politics and Generations," *American Sociological Review* 67, no. 2 (2002): 165–90.
20. www.whitehouse.gov/government/fbci/guidance/charitable.html.
21. Calculations from the General Social Survey, <http://sda.berkeley.edu/7507/quicktables>.
22. This review of the research on the relationship between religion and economic well-being relies heavily on Lawrence Iannaccone, "Introduction to the Economics of Religion," *Journal of Economic Literature* 36, no. 3 (1998): 1465–95, which cites an extensive literature. We do not repeat the citations from that article but add relevant and more recent research.

23. Nigel Tomes, "The Effects of Religion and Denomination on Earnings and the Returns to Human Capital," *Journal of Human Resources* 19, no. 4 (1984): 472–88.
24. Todd P. Steen, "Religion and Earnings: Evidence from the NLS Youth Cohort," *International Journal of Social Economics* 23, no. 1 (1996): 47–58.
25. Iannaccone, "Introduction to the Economics of Religion" (see note 22).
26. Ibid.; Alfred Darnell and Darren E. Sherkat, "The Impact of Protestant Fundamentalism on Educational Attainment," *American Sociological Review* 62, no. 2 (1997): 306–15.
27. Steen, "Religion and Earnings" (see note 24).
28. Bruce Sacerdote and Edward Glaeser, "Education and Religion," Working Paper 8080 (Cambridge, Mass.: National Bureau of Economic Research, 2001). A large body of research shows that social group membership increases with education and that religion is one of the most common forms of social membership. Greater education is not associated with private forms of religious expression, such as prayer and church attendance, but it is positively correlated with other forms of social membership. Thus any relationship between religion and economic outcomes is probably attributable to the fact that more social people are more likely to be religious and more social people are more likely to be successful, not to religion per se.
29. Tomes, using the General Social Survey, shows that about 60 percent of children raised in families with no religion claim to be members of a religion once they are adults, and about 10 percent of individuals who grew up in a family with a religion claim to have no religion once they are adults. This reduces our ability to conclude that the correlation between adults' religion and their income is a good proxy for the correlation between parents' religion and children's income. Tomes, "The Effects of Religion" (see note 23).
30. Jonathan Gruber, "Religious Market Structure, Religious Participation, and Outcomes: Is Religion Good for You?" Working Paper 11377 (Cambridge, Mass.: National Bureau of Economic Research, 2005).
31. As noted above, many policymakers believe that religious parents will set a better example for their children because they will be more likely to marry and remain married. Evidence suggests that individuals who report no religious affiliation have higher divorce rates than individuals reporting any affiliation; Linda Waite and Evelyn Lehrer, "The Benefits from Marriage and Religion in the United States: A Comparative Analysis," *Population and Development Review* 29, no. 2 (2003): 255–75. Today, which denomination adults adhere to has little relationship with marriage or divorce rates, although historically fewer Catholics and Jews divorced than Protestants. Waite and Lehrer also present evidence that children's own religious participation is associated with a lower probability of substance abuse and juvenile delinquency, less depression, and delayed sexual debut. However, the relatively small effect of religion on these outcomes is unlikely to translate into much of an effect on income in adulthood.
32. This brief review of the literature draws from a review by Donna Ginther and Robert Pollak, "Family Structure and Children's Educational Outcomes: Blended Families, Stylized Facts, and Descriptive Regressions," *Demography*, November 2004.
33. Eng Seng Loh, "Changes in Family Structure, Attained Schooling and Adult Poverty Status," *Social Science Quarterly* 77, no. 1 (1996): 145–58.
34. For example, an influential study by Wallerstein and various colleagues (Judith Wallerstein and Sandra Blakeslee, *Second Chances: Men, Women and Children a Decade after Divorce* (Boston: Houghton Mif-

flin, 1996), revised edition; Judith Wallerstein, Julia Lewis, and Sandra Blakeslee, *The Unexpected Legacy of Divorce: The 25 Year Landmark Study* (Hyperion, 2001) claimed that divorce was extremely detrimental to children, reducing their psychological well-being, their educational attainment, and their ability to form good relationships. This claim was based on a small sample of families in which the parents divorced and whom the authors followed over many years. They did not follow a control group of families in which the parents did not divorce, but they claimed that before the divorce their sample was representative of married-couple families. However, Andrew Cherlin notes that half the fathers and nearly as many of the mothers in this study suffered from a mental health problem for which they had been treated before the study began. These mental health problems probably contributed to both the divorce and the problems experienced by the children and controlling parents' mental health would have reduced the estimated effect of divorce. Of course there could have been other differences between the families in the sample and the average married-couple family that also could have contributed to both divorce and children's outcomes, and these too would have to be controlled to produce unbiased estimates of the effect of divorce. Andrew Cherlin, "Going to Extremes: Family Structure, Children's Well-Being and Social Science," *Demography* 36, no. 4 (1999): 421-28.

35. Charles Manski and others, "Alternative Estimates of the Effect of Family Structure during Adolescence on High School Graduation," *Journal of the American Statistical Association* 87, no. 417 (March 1992): 25-37.
36. Timothy Biblarz and Greg Gottainer, "Family Structure and Children's Success: A Comparison of Widowed and Divorced Single-Mother Families," *Journal of Marriage and Family* 62 (2000); Kevin Lang and Jay L. Zagorsky, "Does Growing Up with a Parent Absent Really Hurt?" *Journal of Human Resources* 36, no. 2 (2001): 253-73; Miles Corak, "Death and Divorce: The Long-Term Consequences of Parental Loss on Adolescents," *Journal of Labor Economics* 19, no. 3 (2001): 682-715.
37. P. R. Amato and B. Keith, "Parental Divorce and the Well-Being of Children: A Meta-Analysis," *Psychological Bulletin* (1991) 100: 26-46; Timothy J. Biblarz and Adrian E. Raftery, "Family Structure, Educational Attainment, and Socioeconomic Success: Rethinking the 'Pathology of Matriarchy,'" *American Journal of Sociology* 105, no. 2 (1999): 321-65; Sara McLanahan and Gary Sandefur, *Growing Up with a Single Parent: What Hurts, What Helps* (Harvard University Press, 1994); Andrew J. Cherlin, P. Lindsay Chase-Lansdale, and C. McRae, "Effects of Divorce and Mental Health through the Life Course," *American Sociological Review* 63 (1998), 239-49.
38. Anne Case, I-Fen Lin, and Sara McLanahan, "Educational Attainment of Siblings in Stepfamilies," *Evolution and Human Behavior* 22, no. 4 (2001): 269-89.
39. McLanahan and Sandefur, *Growing Up with a Single Parent* (see note 37); Biblarz and Raftery, "Family Structure" (see note 37); Roger Wojtkiewicz, "Simplicity and Complexity in the Effects of Parental Structure on High School Graduation," *Demography* 30, no. 4 (1993): 701-17; Scott Boggess, "Family Structure, Economic Status, and Educational Attainment," *Journal of Population Economics* 11, no. 2 (1998): 205-22.
40. Put another way, we would expect the interaction of indicator variables for married mother and employed mother to be negative, and the coefficient on married mother and employed mother to be positive. Estimates like these would, of course, require one to address all the problems associated with the meaning of "married" and "single" parents discussed above.
41. A few studies estimate the effect of maternal employment on children's educational outcomes during adolescence. One finds that among white children in married-couple families, "upper-class" and "middle-

class" boys got lower grades when their mothers worked, and their grades were lower still if the mother worked when the boy was of preschool age. The effects of maternal work were much less for girls and for children of lower social classes. See Karen Bogenschneider and Laurence Steinberg, "Maternal Employment and Adolescents' Academic Achievement: A Developmental Analysis," *Sociology of Education* 67, no.1 (1994): 60–77. Another finds no relationship between maternal employment and the school achievement of a small sample of eighth-grade children who lived with two (not necessarily biological) parents; see Sharon Paulson, "Maternal Employment and Adolescent Achievement Revisited: An Ecological Perspective," *Family Relations* 45, no. 2 (1996): 201–08. Controlling parents' marital status, another study finds that children whose mothers were not employed had higher math scores than children whose mothers were employed full time. Children whose mothers worked part time had higher math scores than children whose mothers were not employed or who were employed full time. See Chandra Muller, "Maternal Employment, Parental Involvement, and Mathematics Achievement among Adolescents," *Journal of Marriage and Family* 57 (1995): 85–100. These studies all control some family background characteristics, but none tries to control unobserved heterogeneity or to distinguish the effect of maternal employment for married and unmarried mothers.

42. Suzanne James-Burdumy, "The Effect of Maternal Labor Force Participation on Child Educational Attainment" (Mathematica Policy Research, December 1999); Wen-Jui Han, Jane Waldfogel, and Jeanne Brooks-Gunn, "The Effects of Early Maternal Employment on Later Cognitive and Behavioral Outcomes," *Journal of Family and Marriage* 63 (2001): 336–54; Jennifer Hill, Jane Waldfogel, and Jeanne Brooks-Gunn, "Assessing the Differential Impacts of High-Quality Child Care: A New Approach for Exploiting Post-Treatment Variables," *Journal of Policy Analysis and Management* 21, no. 4 (2002): 601–27; Jeanne Brooks-Gunn, Wen-Jui Han, and Jane Waldfogel, "Maternal Employment and Child Cognitive Outcomes in the First Three Years of Life: The NICHD Study of Early Child Care," *Child Development* 73, no. 4 (2002): 1052–72; Jane Waldfogel, Wen-Jui Han, and Jeanne Brooks-Gunn, "The Effects of Early Maternal Employment on Child Cognitive Development," *Demography* 39, no. 2 (2002): 369–92; Charles L. Baum, "Does Early Maternal Employment Harm Child Development? An Analysis of the Potential Benefits of Leave Taking," *Journal of Labor Economics* 21, no. 2 (2003): 409–48; Christopher J. Ruhm, "Parental Employment and Child Cognitive Development," *Journal of Human Resources* 39, no. 1 (2004): 155–92.
43. Some studies find that mother's work is associated with higher cognitive test scores; see Debrah Vandell and Janaki Ramanan, "Effects of Early and Recent Maternal Employment on Children from Low-Income Families," *Child Development* 63, no. 4 (1992): 938–49; Toby Parcel and Elizabeth G. Menaghan, "Early Parental Work, Family Social Capital, and Early Childhood Outcomes," *American Journal of Sociology* 99, no. 4 (1994): 972–1009; Kristin Moore and Anne K. Driscoll, "Low-Wage Maternal Employment and Outcomes for Children: A Study," *Future of Children* 7, no. 1 (1997): 122–27. Others find that it is associated with lower scores; see Arleen Leibowitz, "Parental Inputs and Children's Achievement," *Journal of Human Resources* 12, no. 2 (1977): 242–51; Frank Stafford, "Women's Work, Sibling Competition, and Children's School Performance," *American Economic Review* 77, no. 5 (1987): 972–80; Frank Mott, "Developmental Effects of Infant Care: The Mediating Role of Gender and Health," *Journal of Social Issues* 47, no. 2 (1991): 139–58; Jay Belsky and David Eggebeen, "Early and Extensive Maternal Employment and Young Children's Socioemotional Development," *Journal of Family and Marriage* 53 (1991): 1083–110. Some of the studies find that the estimates differ depending on the timing of work or the specific group or outcome analyzed; see Sonalde Desai, P. Lindsay Chase-Lansdale, and Robert T. Michael, "Mother or Market? Effects of Maternal Employment on the Intellectual Ability of 4-Year-Old Children," *Demography* 26, no. 4

- (1989): 545–61; Nazli Baydar and Jeanne Brooks-Gunn, “Effects of Maternal Employment and Child-Care Arrangements on Preschoolers’ Cognitive and Behavioral Outcomes: Evidence from the Children of the National Longitudinal Survey of Youth,” *Developmental Psychology* 27, no. 6 (1991): 932–45; Francine Blau and Adam J. Grossberg, “Maternal Labor Supply and Children’s Cognitive Development,” *Review of Economics and Statistics* 74, no. 3 (1992): 474–81; Parcel and Menaghan (cited above in this note); Theodore Greenstein, “Are the ‘Most Disadvantaged’ Children Truly Disadvantaged by Early Maternal Employment?” *Journal of Family Issues* 16, no. 2 (1995): 149–69; Peter Barglow and others, “Developmental Follow-up of 6–7 Year Old Children of Mothers Employed during Their Infancies,” *Child Development and Human Development* 29, no. 1 (1998): 3–20.
44. One study finds that the negative impact of first-year employment is temporary; see Elizabeth Harvey, “Short-Term and Long-Term Effects of Early Parental Employment on Children of the National Longitudinal Survey of Youth,” *Developmental Psychology* 35, no. 2 (1999): 445–59. Others suggest that some effects persist; see Han, Waldfogel, and Brooks-Gunn, “The Effects of Early Maternal Employment” (see note 42); and Waldfogel, Han, and Brooks-Gunn, “The Effects of Early Maternal Employment” (see note 42).
45. This calculation assumes that having a mother who works in the first year of a child’s life reduced cognitive test scores by about a quarter of a standard deviation (Waldfogel, Han, and Brooks-Gunn, “The Effects of Early Maternal Employment”) (see note 42) and that a 1 standard deviation decline in test scores is associated with a 16 percent increase in wages (Winship and Korenman, “Economic Success”) (see note 3).
46. Joseph Altonji and Thomas Dunn, “An Intergenerational Model of Wages, Hours and Earnings,” *Journal of Human Resources* 35, no. 2 (2000): 221–58.
47. Rebecca Blank, “Evaluating Welfare Reform in the United States,” *Journal of Economic Literature* 40 (2002): 1105–66; Bruce Meyer and Dan Rosenbaum, “Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers,” *Quarterly Journal of Economics* 116, no. 3 (2001): 1063–114.
48. See for example the review in Robert Moffitt, *Means-Tested Transfer Programs in the United States* (University of Chicago Press, 2003).
49. Jeffery Grogger and Lynn Karoly, *Welfare Reform: Effects of a Decade of Change* (Harvard University Press, forthcoming).
50. For details, see Jens Ludwig and Susan Mayer, “Ending Poverty by Changing ‘Culture’: The Poverty-Prevention Paradox,” Working Paper, Georgetown University (2006).
51. For example, Greg J. Duncan and Saul Hoffman, “Teenage Underclass Behavior and Subsequent Poverty: Have the Rules Changed?” in *The Urban Underclass*, edited by Christopher Jencks and Paul Peterson (Brookings, 1991), pp. 155–74. Note that encouraging women to complete high school and delay fertility until marriage can greatly reduce their own chances of living in poverty, particularly among African Americans.
52. www.childtrendsdatabank.org/indicators/75UnmarriedBirths.cfm (accessed February 22, 2006).
53. Isabel Sawhill and others, “Results to Date,” in *Welfare Reform and Beyond: The Future of the Safety Net*, edited by Sawhill and others (Brookings, 2002), pp. 9–19.
54. www.religioustolerance.org/us_rel1.htm (accessed February 22, 2006).
55. Christopher Jencks and others, *Inequality: A Reassessment of the Effect of Family and Schooling in America* (New York: Basic Books, 1972).