Thanks for Nothing:

Changes in Income and Labor Force Participation for Never-Married Mothers since 1982

Matthew McKeever
Mount Holyoke College
Nicholas H. Wolfinger
The University of Utah

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Abstract

This study examines whether the changing social and economic characteristics of
women who give birth out of wedlock have led to higher family incomes. Using Current
Population Survey data collected between 1982 and 2002, we find that never-married
mothers remain poor. They have made modest economic gains, but these have dispro-
portionately occurred at the top of the income distribution. Yet there is no evidence of
a burgeoning class of "Murphy Browns," middle-class professional women who give
birth out of wedlock. Surprisingly, never-married mothers' incomes have stagnated in
spite of impressive gains in education and other personal and vocational characteris-
tics that should have resulted in greater economic progress than has been the case.
These gains cast doubt on various stereotypes about women who give birth out of
wedlock.

Author Contact Information

Nick Wolfinger
Department of Family and Consumer Studies
225 South 1400 East, AEB 228
The University of Utah
Salt Lake City, UT 84112-0080
e-mail: Nick.Wolfinger@fcs.utah.edu.

INTRODUCTION

The last 25 years have seen sweeping transformations in the structure of the American family. The transition away from the stereotypical nuclear family of the 1950s has been well documented (Casper and Cohen 2000; Ellsworth and Jencks 2004). One major result of this change is that fewer children are being raised by two married parents (Fields 2003). This paper examines the most disadvantaged group of single parents families, those headed by women who give birth out of wedlock. In particular, we document the changing social and economic characteristics of never-married mothers since 1982.

We have two primary goals. First, we wish to examine the veracity of four popular stereotypes about never-married mothers: 1) They are young, often teenagers; 2) They are likely to be non-white minorities; 3) They often live in multigenerational families, with their own mothers and perhaps even grandmothers; and 4) They are poor. Although there may once have been some truth to each of these assertions, it is likely that all have become less accurate since the early 1980s.

Our second goal, more general than the first, is to examine how the economic circumstances of never-married mothers and their families may have changed over the past twenty-five years in order to improve our understanding of inequality in American society. Historically these families have been among the poorest of all family types, but their fortunes may have changed in recent years. Poverty rates for mother-headed families in general reached a 40-year low of 25% in 2000 (Dalaker 2001) before rebounding to 28% three years later (DeNavas-Walt, Proctor, and Mills 2004). Although these statistics may signify economic

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progress by women who give birth out of wedlock, we do not know the extent to which they have been driven by divorced mothers, the other sizeable group of single mothers (Fields 2003).

Using data from the 1982-2002 Current Population Survey, we find that never-married mothers remain poor, although this is slightly less true today than in the early 1980s. Marginal economic gains have disproportionately occurred at the top of the income distribution, while never-married mothers elsewhere in the income distribution have made very little progress. In many respects this is a surprising result: despite impressive growth in education and other personal and vocational characteristics normally correlated with earnings, never-married mothers have received decreasing economic rewards to these characteristics in the labor market over the years of our study. This result implies that never-married mothers suffer from pervasive and enduring disadvantages that cannot be explained by their labor market characteristics.

Family Structure and Family Inequality

Family structure is now firmly entrenched with education, race, gender, age, and socioeconomic origins as stalwarts of stratification scholarship. There is little research on inequality in contemporary America, academic or otherwise, that does not mention the high rate of poverty among single-headed households. But this link between family structure and economic inequality is often implicitly taken as constant; poverty, especially child poverty, is assumed to be a direct consequence of the absence of two married and working parents in the family. This can be seen in much of the recent legislation on families and marriage reform, from the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) to the currently debated Healthy Marriage Initiative (United States Department of Health & Human

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Services 2006). One principle underlying the Initiative is that poverty rates could be dramatically reduced if only higher marriage rates were attained, and divorce rates lowered.

The logic driving these policy initiatives seems to be that marriage is itself directly related to economic inequality. For instance, a 2004 Heritage Foundation report states that, "The collapse of marriage is the principal cause of child poverty in the United States." (The Heritage Foundation 2004). This claim, of course, is heavily based on the prominent stream of social science research showing inverse relationships between marriage and family poverty (see, especially, Waite and Gallagher 2000). This research is typically conducted by comparing outcomes like poverty and child well-being between married, two-person headed families and single-parent families, most of which are headed by mothers.

Although many studies would not posit such simple causal claims about the benefits of marriage, these claims seem to be the underlying assumptions of much public policy discussion. However, the idea that there is an inherent link between family form and poverty is problematic. Income is not directly linked to family structure–families do not necessarily receive less money if they are headed by one person instead of a married couple. Economic inequality is instead linked to the participation of family members in institutions that reward individuals with income (Lichter and Eggebeen 1994). The primary example of this is the labor market, where individuals exchange their labor for income. But this is not the sole way families earn income. Government programs, extended families, and live-in relationships with unmarried partners may also directly raise income levels.

In the labor market, *ceteris paribus*, families with two working adults are going to be better off than those where only one works. The supply of income for any family is thus related to both the number of adults, whether they have jobs, and the qualities of these individuals which

may raise or lower their earnings in the labor market and other extrafamilial institutions. In addition, personal and family characteristics are related to changes in these institutions–for example, welfare reform or a recession could affect the income received by different types of families, depending upon their particular vocational, social, and demographic attributes.

Thus to understand the economics of single-mother families it is important to examine the characteristics of the adults who head these families, including education, work force status, the returns to these characteristics in the labor market, and the amount of income received as transfers from the government or family members. In this paper we focus on never-married mothers, with the idea that they are not poor because they gave birth out of wedlock but because of their labor market positions. These in turn are affected by all of the labor market disadvantages traditionally associated with women, most notably gender discrimination, lower levels of vocational qualifications, and child care responsibilities (England 1992; Treiman and Hartmann 1981; Waldfogel 1997), as well as their (non) receipt of income from the fathers of their children, their own families, live-in partners, and the government.

Changing Human Capital, Changing Economic Conditions

On the surface there are many reasons to expect economic improvement in recent years for women who give birth out of wedlock, as there have been many social developments that benefited women in general. One important change concerns the human capital brought to the work place. Between 1980 and 2000 the proportion of women with college degrees rose from 13% to 24%, while those with high school diplomas increased from 66% to 84% (United States Bureau of the Census 2001). All else being equal, education increases earning power.

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Employment rates for women with children have increased greatly (United States Bureau of the Census 2001), a long-term trend that existed even before the introduction of TANF in 1996 placed time limits on welfare receipt. Furthermore, the gender gap in wages has narrowed considerably (O'Neill and Polachek 1993; United States Bureau of the Census 1999). Average family size has declined, lessening single mothers' economic burden (United States Bureau of the Census 2000). Finally, rates of nonmarital cohabitation have skyrocketed (Bumpass and Lu 2000; Casper and Cohen 2000), and many women thought to be single mothers are actually living with partners out of wedlock (Bumpass and Raley 1995).

All of these changes suggest economic improvement for all groups of women, but they may not have fully benefited women who give birth out of wedlock. One study finds that poverty rates are higher for unemployed single mothers (Lichter and Eggebeen 1994). But it is also possible that gains in employment may not have produced any substantial benefit for never-married mothers as a whole (Blank 1998; Edin and Lein 1997). This was the case in the past: poverty rates for single mothers did not change appreciably between 1970 and 1984, years during which their rates of employment increased (Nichols-Casebolt 1988). Despite higher employment rates, especially since the introduction of TANF, many single mothers continue to work in low-wage occupations, notably in the service sector (Peterson, Song, and Jones-DeWeever 2002). Childcare responsibilities and the loss of opportunity to earn money in the informal economy may reduce the incomes of single mothers who take jobs (Edin and Lein 1997). If these trends have persisted they may have undercut the economic advantages seemingly conferred by higher rates of education and employment among never-married mothers. As we will discuss below, many women who give birth out of wedlock experience privations above and beyond those produced simply by single motherhood.

Teen Mothers, Single Mothers, Welfare Reform, and Other Approximations

To the best of our knowledge, no other research has examined how the incomes of never-married mothers have changed over time. Perhaps the main reason for this has been the tendency for researchers to study populations that either lump together never-married mothers with other varieties of impoverished women (e.g. studies of "single mothers" or "welfare reform," both of which also include divorced mothers) or include only a fraction of women who give birth out of wedlock ("teen mothers").

According to a 2003 Census report, 44% of single mothers have never been married, while 35% are divorced (the other 21% includes widowed mothers and married mothers separated from their spouses for various reasons) (Fields 2003). Never-married mothers have traditionally been poorer than their divorced counterparts (United States Bureau of the Census 1997). The latter have shown dramatic economic improvement among divorced women since 1980, although they still lag far beyond their married counterparts (McKeever and Wolfinger 2001, 2005). While divorced women's economic woes are rooted in their marital transitions (Smock, Manning, and Gupta 1999), women who give birth out of wedlock typically are poor even before giving birth (Hoffman 1998). Thus, the income penalties conferred by single motherhood are often only exacerbating existing economic hardship. For many women acquiring a husband represents a traditional means of escaping poverty, but out-of-wedlock birth reduces the likelihood of matrimony (Lichter and Graefe 2001). The upshot is that never-married mothers should be studied by themselves, not lumped together with divorced women.

Another focus of previous work on the economics of out-of-wedlock motherhood has been teenage childbearing. In particular, many studies have explored whether nonmarital fertility is a cause or consequence of poverty, especially for teenagers (see Hoffman 1998 for a review). Characterized by formidable methodological innovation, this research has examined teenage childbirth within pairs of sisters (Geronimus and Korenman 1991; Hoffman, Foster, and Furstenberg 1993), compared teenage mothers with would-be mothers who miscarry (Hotz, McElroy, and Sanders 2002), and assessed the differential effects of having single children or twins (Grogger and Bronars 1993). Taken together, this body of research shows that some—and perhaps all, according to the Hotz et al. study—of the apparent economic consequences of teenage childbirth are a product of selection: teenage mothers would be impoverished even had they remained childless. Additional evidence for this contention comes from the finding that women who grow up poor are disproportionately likely to give birth out of wedlock (Wu 1996); thus, poverty is a cause as well as a consequence of nonmarital births.

There are three problems with applying these studies of teenage childbearing to never-married mothers more generally. First, one out of four teenage mothers is married (Foster, Jones, and Hoffman 1998), so research nominally devoted to teenage childbirth does not provide an accurate depiction of unwed teenage mothers, or unwed motherhood in general. Second, older women who give birth out of wedlock are neglected entirely. As recently as the 1970s teenagers represented a plurality of out-of-wedlock mothers, but this is no longer the case. By 1995, only about 30% of never-married mothers were teenagers (Wu, Bumpass, and Musick 2001). Furthermore, unwed teenage mothers who avoid further nonmarital fertility fare better economically than women who continue to have children out of wedlock (Foster, Jones, and Hoffman 1998; Hoffman and Foster 1997). Finally, none of the studies cited here consider how

the incomes of never-married mothers have changed over time. This is a noteworthy omission in an era when all women's labor force prospects have improved, potentially eroding the link between single motherhood and poverty.

Yet another body of research has been focused on the consequences of welfare reform. A number of studies in the first years of the twenty-first century have evaluated the economic well-being of women exiting welfare (see Blank 2002 for a review). Initial studies were cautiously optimistic: welfare rolls were shrinking, income levels had increased modestly and poverty rates had declined. However, it has been difficult to determine whether these trends were the product of changing welfare policy or of the favorable economy of the late 1990s. Either way, these studies have the same shortcoming as does the more general body of work on single mothers: rarely are distinctions made between divorced women, whose welfare participation is inherently more likely to be transitory, and women who give birth out of wedlock.

A final shortcoming of previous research on the economics of single motherhood has been the tendency to rely on simple measures of economic well-being, such as median family income. Such measures ignore potentially distinct trends at various points in the income distribution, which can be important for understanding poverty. The more general trend in the American income distribution has been polarization, with a growing gap between rich and poor (Farley 1996). One important reason for this gap has been the proliferation of mother-headed families (Eggebeen and Lichter 1991). But no studies have explored the possibility of income polarization *within* the population of women who give birth out of wedlock.

For instance, a rising middle class of never-married mothers might obscure economic stagnation by others. In the wake of Dan Quayle's famous May 19, 1992 speech condemning sit-com character Murphy Brown, the myth arose of the professional women opting, perhaps

while in her 30s or early 40s, to give birth out of wedlock (e.g., Whitehead 1993). Do such women exist in meaningful numbers? If so, social science may need to revise its traditional portrait of the unmarried mother. The presence of "Murphy Browns" in any numbers may also distort the more general picture we have of women who give birth out of wedlock by contributing to income inequality within this traditionally disadvantaged population. We will therefore examine trends across the entire income distribution for women who give birth out of wedlock, and ascertain whether economic progress has occurred for all families headed by never-married mothers, or only a select few at the top of the income distribution.

METHODS

Data

We study never-married mothers using data from the 1982-2002 March Demographic Supplements of the Census Bureau's Current Population Survey (CPS) (United States Bureau of the Census 2002). A joint project of the Bureau of Labor Statistics and the Bureau of the Census, the CPS is an annually repeated cross section of over 50,000 households. The data are nationally representative, high quality, and contain detailed information on income and other respondent characteristics. Given that only a third of new births occur out of wedlock, there are not enough respondents in most other data sets to permit the analysis of variation within the heterogeneous population of never-married mothers. The overall sample for these years is

34,321. We also analyze the data for the years 1982 and 2002 separately; these sample sizes are 997 and 3,133 respectively.

We analyze female CPS respondents who have given birth out of wedlock and have never been married. Thus respondents must currently have one or more co-resident children who are under the age of 18. Respondents may be householders, or the children or stepchildren of householders; together respondents in these three categories comprise 98% of all never-married mothers in the CPS.[1] Unwed mothers who subsequently married, whether to the father of their children or another man, are excluded. This obviously means that we are analyzing a selective sample. For instance, non-Black mothers have higher marriage rates after a non-marital birth, as do those whose partners have higher incomes and more education (Wilcox and Wolfinger 2006). The sample we analyze therefore is disproportionately likely to be not very well off, at least in comparison to mothers who get married soon after their children are born. This is our intention: to analyze the population of mothers who do not marry, and therefore are the most economically vulnerable.

Our study begins at 1982 for three reasons. First, and most importantly, it marks the implementation of a new sampling strategy for the CPS; earlier data may not be directly comparable. Second, it is the first year of data to be affected by the Reagan presidency, often thought to herald a new economic regime (Kymlicka and Matthews 1988; Lekachman 1982). Third, Garfinkel and McLanahan's (1986) landmark study of poverty in single-mother families analyzed CPS data extending through 1980. We end the study at 2002 because information on respondent occupational prestige, described below, is not available for subsequent years.

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[1] Given how the CPS classifies household relationships it is impossible to verify children's ages, an important independent variable, for the other 2% of never-married mothers.

Income is measured in 2004 dollars, and survey weights are used in all analyses so the data comprise a nationally representative sample. Regression analyses employ Huber-White standard errors (Huber 1967; White 1980) to avoid the artificially inflated t-ratios that can result from weighted data. The Huber-White algorithm also provides asymptotically correct standard errors for cluster-sampled data.

Independent Variables

Education, occupational status, age, and hours worked enable us to test the theory that never-married mothers' income trends are a product of their labor force characteristics. Education is dummy coded as less than a high school degree, high school graduate, associates' degree, college graduate, and graduate degree. Occupational status is measured with a SocioEconomic Index (SEI) of occupations (Hauser and Warren 1997). Based on exploratory generalized additive models (Hastie and Tibshirani 1990), SEI is coded as a piecewise linear spline with a knot at 40. Hours worked is dummy coded as not working (0 hours), working part-time (1-34 hours), and working full-time (35+ hours). Age is measured as a continuous variable; its square is also included in accordance with usual practice. Together age and its square proxy work experience, information otherwise unavailable in the CPS.

A second set of variables allow us to determine whether changing patterns of fertility have affected how never-married mothers fare. Women with two or more children earn lower wages than those with only one child (Avellar and Smock 2003; Budig and England 2001; Waldfogel 1997), so we employ dummy variables to measure both the number of children (one, two, or three or more) and the presence of children under six years old. Younger children in

particular make employment more difficult. We also include a set of dummy variables measuring whether women's first nonmarital birth occurred as a teenager: one measuring those who first gave birth under the age of eighteen, the other for women who gave birth as eighteen and nineteen year olds (over twenty is the reference category). An additional dummy variable is coded for missing data; this is the product of complexities in reconstructing household records. More sophisticated means of handling missing data, such as multiple imputation, do not perform appreciably better (Paul et al. 2003). No other variables have missing data.

A third set of variables allow us to determine whether never-married mothers' economic progress can be attributed to increased dependence, on parents or cohabiting partners, rather than higher levels of vocational capital or changing patterns of fertility. About 22% of children born to unwed mothers will spend at least some time living with both their mothers and grandparents (Bumpass and Raley 1995). Co-residence with parents has many implications for income, so it is measured with a dummy variable. Data limitations prevent us from measuring cohabitation with relatives besides parents.

Twenty-five percent of unwed mothers live with their partners at the time of childbirth (Bumpass and Raley 1995); overall, forty percent of cohabiting households contain children (Bumpass, Sweet, and Cherlin 1991; Bumpass and Lu 2000). Cohabiting households have higher incomes than mother-only families and also benefit from economies of scale. The CPS only added direct means of identifying cohabiting couples in 1995, so we use the adjusted POSSLQ measure proposed by Casper and Cohen (2000). An adjusted POSSLQ household meets the following criteria: It must contain a householder, one other adult (age 15+) of the opposite sex who is not in a related subfamily, not a secondary individual in group quarters, and not related to or a foster child of the reference person, and must not contain other adults except

children, foster children, or other relatives of the reference person, or children of unrelated subfamilies. Unfortunately this measure does not allow us to differentiate opposite-sex roommates from cohabiting partners. Perhaps as a consequence adjusted POSSLQ overestimates the actual number of heterosexual cohabiting couples, although the rate of overestimation has remained relatively constant over time. Finally, we are not able to conduct separate analyses of cohabiting couples because of the design of the CPS. Our analyses are based on family income, but cohabiting couples comprise two families residing within a single household.

Our final independent variable is race, dummy coded as white, black, and other (including non-black Hispanics). More detailed measures only became available partway through our time series. In 1998, 69% of African-American mothers gave birth out of wedlock, compared to 22% of white mothers (Ventura 2000). Race is also strongly correlated with income (Proctor and Dalaker 2003).

Analyses

We begin by examining how the characteristics of never-married mothers have changed over the years of our study. Next we perform, in accordance with stratification research conventions, an ordinary least squares regression of logged family income. This analysis uses all years of CPS data between 1982 and 2002, inclusive. The first regression model, examining family log-income as a product of the independent variables described above, allows us to determine the important predictors of economic well-being. In the second model we interact these variables with survey year in order to understand how the determinants of never-married mothers' incomes changed over time. Next we regress on income for the end years of the study,

1982 and 2002, in order to decompose mean levels of log-income. This enables us to determine how much of the gain in average income is related to changes in personal characteristics of never-married mothers, how much is due to changes in the return to these characteristics (in other words, changes in the labor market and other institutions that affect women's incomes), and how much is due to the interaction of these two sets of factors (Treiman n.d.).

We also employ a rank-order approach that provides insight into how labor force qualifications affect women's locations within the income distribution (Fortin and Lemieux 1998). Family income is divided into 50 intervals, each containing 2% of the income distribution. This provides sufficient categories to approximate the income distribution without spreading the sample too thin. The distribution of income categories serve as dependent variables that are predicted by ordered logistic regression models (Maddala 1983). This facilitates a novel distributional decomposition. By decomposing entire income distributions via the ordered logistic regression models, we can examine distributional changes in the average return to any given level of labor force qualifications.

Our final analysis considers economic dependence on income transfers from the government and children's fathers. Here we simply compute the proportion of family income resulting from income transfers, from nonresident fathers and the government.

RESULTS

<u>Univariate Results</u>

Figure 1 displays trends in family income between 1982 and 2002 for never-married mothers. Women at the bottom of the income distribution have shown almost no income growth, while those at the top have seen their incomes almost double. Still, incomes for both groups remain far lower than for two-parent families. At just over $5,000, family incomes for never-married mothers in the bottom quartile remain almost as low in 2002 as they were in 1982 (all amounts are expressed in 2004 dollars). The lack of progress and low overall income level, far below the poverty line for a family of two or more, are especially stunning when compared to married or even divorced mothers. Between 1980 and 2001 married women in the lower quartile improved their per capita incomes by 25% (McKeever and Wolfinger 2005); although their husband's earnings likely declined (Farley 1996), women's labor force participation increased and became more lucrative. Divorced women in the lower quartile fared even better, experiencing income growth of 45%. By 2001, divorced women in the lower quartile had median *per capita* incomes ($8,304) that were almost two thousand dollars higher than the *overall* median family incomes of never-married mothers in the lower quartile in the same year ($6,946). By any measure, the worst-off 25% of women who give birth out of wedlock—and remain unmarried—continues to be a desperately poor group, with incomes remaining nearly as low as they were over twenty years ago.

Figure 1 Here

The median never-married mother, as well as her counterpart in the upper quartile, has fared better over time. Median respondents experienced gains in family income of

approximately $6,000—from $8,000 to $14,000—between 1982 and 2002. Although this is an increase of over 50%, the median family headed by a never-married mother still subsists on an income several times below that of the typical two-parent family. Moreover, this is an income less than $1,000 above the poverty line for a family of three—and about $3,000 below that for a family of four. These figures show that the typical woman who gives birth out of wedlock still fares far worse than her married counterpart.

The situation is only a little better for never-married mothers in the upper quartile, the top 25% of the income distribution. They have experienced economic gains of about $10,000 between 1982 and 2002, or only $4,000 more than the median family headed by a never-married mother, placing family incomes of the upper quartile at $26,000 by the end of our time series. This figure is over $10,000 higher than the median income for never-married mothers and well above the poverty line, but still far below the median family income for two-parent families. Even at the top decile incomes for never-married mothers are only at $41,204 (result not shown), well below the median income for American families in general. These findings cast doubt on the development of a new middle class of professional women who give birth out of wedlock. If such a class has emerged, it must be limited to a minute number of professional mothers. Despite some progress, most never-married mothers continue to have incomes far behind those of other family types.

Table 1 displays summary statistics for independent variables in 1982 and 2002, the end points of our time series. Overall, the results shown in this table reflect the improved economic standing of the median never-married mother. All variables related to labor force participation show strong gains. Over half of all never-married mothers were out of the labor force in 1982. By 2002, only 21% were not working. In 1982, 42% had not graduated from high school. This

figure had declined to 24% by 2002. Rates of college graduation, although still low compared to the U.S. population at large (cf. Stoops 2004), have tripled over time. The number of never-married mothers who had attended at least some college more than doubled over the years of the study; this probably includes women who secured remunerative technical degrees. In line with increasing education, average SEI scores rose almost five points.

Table 1 Here

Other changes since 1982 also suggest improved economic prospects for never-married mothers. Fewer had preschool-age children in 2002 (60%) than in 1982 (70%). In recent years respondents were also far less likely to have their first (or only) nonmarital births while under the age of eighteen. Perhaps as a result, never-married mothers in 2002 are three years older than in 1982. Our respondents were probably also older in more recent years due to the rising first marriage ages (Fields 2003), and older mothers are more likely to have greater work experience. In 2002 never-married mothers are less likely to have children under the age of six, but levels of multiple fertility have not changed substantially over time.

Four variables measure economic dependence: receipt of child support, receipt of public aid, coresidence with parents, and coresidence with a romantic partner. Of these, public aid shows the most dramatic change over time: receipt fell from 59% in 1982 to 14% in 2002. This of course largely reflects the transition from AFDC to TANF in 1996. Coresidence with parents also declined, although much more modestly. These two trends suggest less economic dependence for never-married mothers. The modest increase in cohabitation among our respondents, from 6% in 1982 to 12% in 2002, is not large enough to suggest that cohabiting families with children are becoming a widespread and enduring alternative to traditional married

families.[2] Also, this increase is more than offset by the decreasing number of never-married

mothers living with their own parents. Finally, child support receipt approximately doubled

between 1982 and 2002. Income transfers from fathers, unlike public aid payments, cannot be

construed as evidence that never-married mothers are failing to adequately provide for

themselves. Instead, they are an indication of father involvement, a small sign that the fathers of

children born out of wedlock are behaving more like their counterparts in two-parent families.

Nevertheless, at 25% rates of receipt remained low in 2002, even in comparison to divorced

mothers (cf. Grall 2000).

Analysis of Mean Income Levels

Table 2 displays results from the ordinary least squares regression of logged family

income for never-married mothers between 1982 and 2002. Model 1 contains zero-order results;

Model 2 includes interactions between survey year and various independent variables. Looking

first at Model 1, an R^2 of .37 suggests that our independent variables are explaining substantial

variation in income. Furthermore, the same factors that predict high incomes for never-married

mothers are the typical predictors of high incomes for everyone. Education is positively

correlated with income. Respondents who did not graduate from high school have the lowest

incomes, while college graduates have the highest. However, the biggest jump in income comes

neither from a high school diploma nor a four-year college degree, but from having college

experience without a bachelor's degree. Perhaps this corresponds to women with two year

technical degrees. Also surprising is the fact that women with advanced degrees fare no better

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[2]These numbers, 6% and 12%, are low because cohabiting relationships tend to be short and unstable (Bumpass and
Lu 2000).

than do their counterparts with bachelor degrees: the corresponding regression coefficients are almost identical. For unknown reasons, never-married mothers with advanced degrees are unable to convert their credentials into higher wages.

Table 2 Here

In other respects respondent occupational characteristics have predictable effects. SEI scores are positively correlated with higher incomes. The larger coefficient on the first segment of the piecewise spline shows this is particularly true for women with SEI scores below 40. Respondents who are working full time have higher family incomes than do those working part-time; they in turn have larger incomes than their counterparts who are not working. Age has the standard curvilinear relationship to income: never-married mothers make more money as they get older and accumulate job experience. Subsequently they experience declining returns to experience, and/or scale back their labor force participation, and their wages decline. In addition, African-Americans have significantly lower wages than do members of other population groups.

The effect of children on income is surprising yet ultimately logical. Women with two children make the same amount of money as do those with only one child, but women with three or more children report significantly higher incomes. This result is unexpected given that earlier work finds an incremental wage penalty associated with children (Budig and England 2001). Our results probably differ for two reasons. First, Budig and England were studying wages, not overall family income. Although multiple children restrict labor force participation, they also increase eligibility for income transfers. In our study, 31% of women with only one child received public aid but 63% with three or more children did. Second, Budig and England employed panel data and fixed-effects methods, while we are relying on cross-sectional data and

ordinary least squares. In addition, the presence of children under the age of six has the predicted negative effect on income. Young children make employment more difficult.

The most surprising and intriguing findings concern the effects of survey year and age at first birth. Figure 1 shows modest increases in never-married mothers' incomes since 1982, yet the regression coefficient measuring the effect of calendar year on income is negative in Model 1. This means that net of all our measured economic and demographic variables, women who give birth out of wedlock are making less money now than in the early 1980s. Put another way, the modest economic gains achieved by the women in our sample are entirely attributable to changing values on education, SEI, and other independent variables. Intrinsically it has become more difficult financially to give birth out of wedlock. Our subsequent analyses will reveal the exact variables responsible for higher incomes among never-married mothers.

The story is similar for the dummy variable measuring whether respondents first gave birth prior to age eighteen.[3] Predictably the zero order relationship between birth timing and income is negative: women who first gave birth out of wedlock before age eighteen fare worse economically than do older never-married mothers (result not shown). Teenagers typically have little work experience and few labor market qualifications. More generally, this is true of most women who give birth out of wedlock; indeed, it is one of the reasons their incomes have remained low. Yet net of measured sociodemographic characteristics, women in our sample who first gave birth out of wedlock as young teenagers have higher incomes than do women whose first nonmarital births occurred later. The analysis also shows heterogeneity among teen-age mothers, as those who gave birth when eighteen or nineteen show no net differences in income from those who give birth in later years. Additional analyses show that age is the respondent

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[3]The large negative coefficient for missing data on age at first birth makes sense. Most of these women reside in families too complex to be captured by CPS data, and complex living arrangements are often related to poverty.

characteristic responsible for the positive relationship between age at first birth and income; take age (and age squared) out of the model, and age at first birth has a negative relationship to income.

These findings suggest that all else being equal it is beneficial to move past premarital child birth early and quickly; in other words, to "get it out of the way". Having children young means that never-married mothers can spend productive years in the labor force without being interrupted by birth events. If there is to be a nonmarital birth, one's teenage years would appear to be the best time to do so, at least in the long run. Perhaps this finding can be explained by the following pair of scenarios, both based on expectations of marriage: Women younger than eighteen who get pregnant out of wedlock do not yet have the labor force credentials necessary to make good wages, but may have expectations of marriage. If they subsequently marry, they disappear from our sample; if not, they have had several years to obtain either further schooling or some job experience (or both). On the other hand, women who give birth when older may still harbor expectations of marriage. Accordingly, they have not yet developed any meaningful attachment to the labor force.

Our next analytic objective is to understand how the determinants of income among never-married mothers have changed over time. We accomplish this by interacting survey year with the independent variables contained in Model 1. Statistically significant terms are retained in our analysis, presented in Model 2 of Table 2. In general there are fewer surprises here than in Model 1. The effects of most of the variables measuring labor force characteristics have remained constant over time. Education is equally important in 2002 as it was in 1982. So is SEI. But this is not the case regarding the economic benefits of simply being in the labor force. Both part- and full-time employment have significant and positive interactions with survey year.

Therefore, being employed is now a stronger determinant of income for never-married mothers than it was in 1980s. Given dramatically decreasing levels of public aid receipt over these years—cemented by the imposition of time limits on welfare receipt in 1996—it is not surprising that being part of the labor force is now a more important determinant of income than it used to be.

Perhaps the declining significance of welfare can also explain the increasing importance of multiple children. Coefficients representing interactions between having two or three (or more) children and survey year are both negative and statistically significant, indicating that over time children increasingly have negative effects on never-married mother's incomes. In addition, these negative interactions produce changing effects that cross the intercept: multiple children increased women's incomes in 1982 but decreased them in 2002. By 2002, when labor force participation had become paramount for predicting never-married mother's incomes, children had negative effects because they kept women out of work and prevented them from achieving stable histories of labor market participation. But in 1982, when AFDC provided the lion's share of income for never-married mothers (see Table 4, below), each additional child raised entitlements to government aid and therefore had positive effects on women's incomes.

The only other statistically significant interaction in Model 2 concerns the effects of co-residence with parents: over time, it provides a growing economic benefit to women who give birth out of wedlock. We speculate that this result also reflects the increasing importance of labor force participation. All else being equal, co-residential parents are more likely to provide child care, which in turn facilitates employment. As employment has become more important to never-married mother's economic prospects, the value of free childcare has risen commensurately. Cohabiting partners, in contrast, are probably less able to look after children,

because they likely have jobs of their own. This might account for why the economic benefits of cohabitation have remained constant over time. An employed partner helped obviate a woman's own income in 2002 the same way he did in 1982.

Decomposition of Changes in Mean Log-Income

Another way to explore the changing economic fortunes of never-married mothers is to decompose the changes in average income levels between 1982 and 2002. This decomposition allows us to determine whether changing respondent characteristics, as opposed to changing returns to characteristics, can explain income trends and is reported in Table 3. The first column uses 1982 as the standard for the decomposition, and the second 2002.

Table 3 Here

The decomposition shows that differences in respondent characteristics between the two years should have led to larger improvements in average income for never-married mothers than has actually been the case. This shortfall is primarily driven by changes in labor market participation, comprised of gains in working hours, occupational status and experience (as measured by age). The first panel of Table 3 shows that never-married mothers' gains in average income have been mostly due to differences in these respondent characteristics between 1982 and 2002. These changes represent 70% of the total effect of changes in respondent characteristics using 1982 as the standard, and 85% of the total effect using 2002 as the standard. The economic gains that should have occurred given changes in never-married mothers' labor force participation are also larger than the overall differences observed. Using either year standard, changes in the characteristics of never-married mothers should have resulted in gains in

average income from 1982 to 2002 that were two to three times larger than those that actually occurred.

The second and third parts of the decomposition show that substantial gains in employment and education were greatly offset by declines in economic returns to personal characteristics The second part of the decomposition shows that overall returns to personal characteristics are lower in 2002 than in 1982, largely due to a very significant decline in the intercept. The portion of changes in average income between the two years due to the interaction when 2002 is the standard, which indicates the differential valuation in 2002 compared to 1982 of differences in characteristics, is also negative. Overall, these diminishing returns more than offset gains women should have obtained as they entered the labor market over the years of our study. While more of these women are working—and in better jobs—they are not being rewarded for their efforts. This shortfall motivated our sardonic paper title, "Thanks for Nothing."

Decomposition of Changing Income Distributions

The decomposition reported above allows us to determine which measured respondent characteristics can account for the lower returns never-married mothers have received in recent years. However, they are based on mean levels of log-income, so they do not provide insight into how changing characteristics—and diminished returns to characteristics—have affected never-married mothers at different points of the income distribution. We therefore provide a second decomposition, based on ordered logit regressions of income rank distribution (Fortin and Lemieux 1998).

Figures 2 and 3 display the results of our analysis of changing income distributions. Figure 2 plots the observed distributions for 1982 and 2002. The two density traces are essentially mirror images of each other, with the most dramatic transformations occurring in the middle of both distributions. Both show evidence of mild kurtosis, with clear modal groups and less defined adjoining income concentrations. In 1982 the mode occurred closer to the bottom of the distribution, with a smaller concentration of women faring just slightly better. By 2002 this pattern had reversed. The mode was closer to the center of the distribution, with a smaller concentration of never-married mothers faring slightly worse. Perhaps more interesting are the tails of the two distributions. For both years very few cases fell into the far right of either distribution. Thus for both years there were almost no "Murphy Browns," successful professional women who managed to have both high incomes and nonmarital births. Nor has the number of such women increased over time. On the other hand, fewer cases fell into the far left of the 2002 distribution than had been the case in 1982—the number of "poor poor" never-married mothers has abated slightly over time. In general, though, more cases fall into the left tails than the right; that is to say, far more never-married mothers are disproportionately poor than are disproportionately well off.

Figure 2 Here

Figure 3 shows "counterfactual" density plots of income. The smooth line, included for comparative purposes, reflects the predicted densities for 1982 shown in Figure 2. The line marked with circles plots estimates calculated from the 1982 model and the 2002 data. This line represents what the income distribution would have looked like in 2002 if never-married mothers were still receiving the same economic returns to personal and vocational characteristics that they had received in 1982. The line marked with triangles plots figures calculated from the 2002

model and the 1982 data, showing what the income distribution would be if the women in 1982 were receiving the economic returns to characteristics that women were in 2002. These figures allow us to determine whether respondent attributes or the labor market were more responsible for women's changing economic fortunes.[4]

Figure 3 Here

The data show again that the answer to why any women are doing better in 2002 is undeniably changes in their employment-relevant attributes. The trace depicting 1982 data but the 2002 model closely resembles the predicted values for 1982. This leads us to conclude that any improvement in never-married mother's economic prospects is due to their changing personal and vocational characteristics, not higher levels of returns to any given set of individual or familial attributes. Most notably, the typical never-married mother is older, more likely to be working, has higher SEI scores, and has more education than in the past. These characteristics are responsible for the modest economic progress among these women. This also is the story told by the counterfactual distribution for the 1982 model and the 2002 data, which is shifted to the right of the observed distribution for 1982.

Economic Dependence

We now turn to the contributions of nonemployment income and other forms of outside support to divorced women's economic well-being. Table 1 shows that fewer respondents now benefit from nonemployment income than used to be the case. Never-married mothers on the

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[4]Unfortunately there is no way to perform a partial standardization (e.g., to use 1982 values on some independent variables and 2002 values on others) to determine which predictors have been particularly important to divorced women's economic progress. Although a subset of means in a standard decomposition can easily be switched, partial distributions in this type of analysis cannot be.

whole now fare better while simultaneously receiving fewer income transfers. But what about the women still receiving money? To what extent do they depend on these income transfers? It would undercut our findings on the economic gains of never-married mothers if their progress had been driven in part by greater dependence, albeit by fewer recipients, on child support or public aid.

To address this question we measure dependence by computing the percentage of total family income separately attributable to public aid and child support. Median levels of dependence for each income source are shown for 1982 and 2002 in Table 4. Neither child support nor public aid can account for the income trends described in this paper. For the median recipient, child support provided 17% of total income in 1982. By 2002, child support comprised only 11% of total income. This is understandable given that the median support payment that year was a paltry $630. The transformation has been even more dramatic for public aid dependence. In 1982, it was the sole source of income for the majority of its recipients. In contrast, it provided just 38% of all income for the median recipient by 2002. Even economic dependence based on the combined receipt of both child support and public aid has abated. Seven percent of respondents received both types of income transfers in 1982; the corresponding figure for 2002 was 3%. Although child support and public aid together produced the vast majority of income for duel recipients in 1982, combined receipt only comprised 41% of the total income for the few never-married mothers receiving both in 2002. Taken together, these results show that never-married mothers are less economically dependent in 2002 than then were in 1982. Welfare receipt has plummeted over time; although almost twice as many never-married mothers got child support in 2002 than in 1982, receipt is still extremely low.

Table 4 Here

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Economic dependence may also take the form of coresidence with parents or a unmarried partner. The results shown in Table 1 show that coresidence with parents has declined. Twenty-nine percent of never-married mothers lived with a parent or parents in 1982; by 2002, only 19% did. This is a noteworthy decline, although the economic benefits of living with a parent did increase between 1982 and 2002. Finally, rates of nonmarital cohabitation increased from 6% to 12% over the years of our study. Again this is a relatively small increase that has brought increased income to just a few unmarried mothers.

CONCLUSION

Earlier we stated two goals for the paper. The first, examining four popular stereotypes about never-married mothers, has yielded results that dispute the conventional wisdom. Although never-married mothers are younger on average than their married counterparts, it is no longer accurate to portray these women as teenage mothers. Almost two-thirds are now twenty or over when they first give birth. Never-married mothers are also more likely to be white than in the past, and less likely to be African-American. In these ways, never-married mothers as a group are beginning to more closely resemble the U.S. population as a whole, although whites do remain underrepresented. Never-married mothers are also increasingly less likely to live with their own parents.

The fourth stereotype, that never-married mothers are poor, is also less true today than in the early 1980s. However the data show that economic gains have been marginal. In addition, these gains have disproportionately occurred at the top of the income distribution. Never-

married mothers at the bottom of the income distribution have basically made no progress, while those at the middle and top of the distribution have achieved only modest gains. Overall, nearly all of these women remain much more poor than their married counterparts, or even divorced mothers.

Previous studies have documented that children in families headed by never-married mothers are more likely to be raised in poverty than children in other types of families, and we find that this is still true today. What is interesting is that never-married mothers and their families continue to languish in poverty despite impressive gains in education and other personal and vocational characteristics that should have resulted in more substantial economic gains. The economic disadvantages conferred by out-of-wedlock birth therefore appear pervasive.

Viewed more broadly, our results turn the received wisdom about stratification and poverty on its head. Many people in contemporary America are poor because of their relationship to the labor market. They don't have the skills and the jobs necessary to produce better wages (Blau and Duncan 1967). Certainly this has been the case when attempting to explain the economics of marital disruption. Divorce removes the primary wage-earner from the household, so the responsibility for earning a living is left in the hands of women, who traditionally have occupied poor positions in the labor market. Recent gains in women's earning power have resulted in rising incomes for divorcées (McKeever and Wolfinger 2001, 2005). Interestingly, although never-married mothers have achieved similar gains in personal characteristics, economic returns have not followed suit. Never-married mothers therefore suffer from economic hardships that cannot be explained by their relationship to the labor market.

These hardships speak to disadvantages far more substantial than can be measured with CPS data. Most likely they are present long before the actual nonmarital births occur. In this

respect, our findings regarding lower-than-expected returns to labor force characteristics are consistent with studies suggesting that never-married mothers would be poor even had they not given birth out of wedlock (see, especially, Hotz, McElroy, and Sanders 2002). These disadvantages may well be transmitted intergenerationally. Women who give birth out of wedlock are themselves likely to have been raised in impoverished families and to have endured unstable families of origin (Wu 1996). Growing up under conditions like these may produce the lasting disadvantage that limits never-married mothers' ability to succeed in the labor market, even if they are older and have more education than the previous generation of women who gave birth out of wedlock. Additionally, changes in the structure of the labor market might also have contributed to the ongoing economic woes of never-married mothers. As the labor market has increasingly divided itself into good jobs and bad jobs, never-married mothers seem to have been caught on the wrong side of the split. If this is indeed the case, it will take more than job training programs to lift never-married mothers out of poverty.

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Table 1. Descriptive Statistics for 1982 and 2002.

Education	1982	2002
Less than H.S.	42%	24%
High school graduate	42	40
Some college	13	29
College graduate	2	5
Advanced degree	0.41	2
Employment		
Not working	51%	21%
1-34 hours	12	18
35+ hours	37	61
SEI	24.84	30.44
Age	27	30
Race		
White	24%	34%
Black	67	47
Other	9	19
Children		
1	55%	57%
2	38	27
3+	17	16
Children under 6		
Yes	70%	60%
No	30	40
Age of first birth		
< 18	24%	10%
18-19	28	27
20+	48	64
Receiving public aid		
Yes	59%	14%
No	41	86
Receiving child support		
Yes	13%	25%
No	87	75
Living with parents		
Yes	29%	19%
No	71	81
Cohabiting		
Yes	6%	12%
No	94	88

Notes: **Ns** are 1,031 for 1982 and 3,260 for 2002. Percentages are weighted.

Percentages may not sum to 100 due to rounding error.

Table 2. OLS Regressions of Family Log-Income, 1982-2002.

		Model 1	Model 2
Year		-.02***	.01
Race			
	White	--	--
	Black	-.15***	-.15***
	Other	-.10**	-.09**
Education			
	Less than H.S.	--	--
	H.S. graduate	.09***	-5.77
	Some college	.26***	-20.51*
	College graduate	.29***	-63.71***
	Advanced degree	.22**	-75.08**
Year*H.S. graduate		--	.03
Year*some college		--	.01*
Year*college graduate		--	.03***
Year*advanced degree		--	.04**
SEI to 40		.02***	.02***
SEI 41+		.01**	.01***
Children			
	One	--	--
	Two	.11***	34.14***
	Three+	.30***	40.68***
Year*two children		--	-.02***
Year*three+ children		--	-.02***
Young children		-.03	-.04
Age		.10***	9.04**
Age^2 / 100		-.11***	-13.68**
Year*age		--	-.004**
Year*Age^2 / 100		--	.01**
Living with parents		-.96***	-24.51*
Year*living with parents		--	.01*
Employment			
	Not working	--	--
	1-34 hours	.74***	-118.47***
	35+ hours	1.28***	111.21***
Year*working 1-34 hours		--	.06***
Year*working 35+ hours		--	.06***
Has live-in partner		-.43***	-.42***
Age at first birth			
	< 18	.07*	.07*
	18-19	.04	.04
	20+	--	--
	Data missing	-.45***	-.42***
Constant		54.47***	-8.89***
R-square		.37	.38

*p < .05; **p < .01; ***p < .001

Notes: Analyses are weighted. **N** is 34,321.

Table 3. Decomposition of Mean Differences in Family Income, 1982-2002.

	2002 as standard	1982 as standard
Actual	0.3921	0.3921
Difference in Assets		
Education	0.1002	0.0418
Employment	1.0247	0.5214
Family	0.0729	0.1271
Age at First Birth	0.0025	0.0141
Race	-0.0033	0.0301
Total	1.1971	0.7345
Difference in Returns		
Intercepts	-3.0684	-3.0684
Education	0.0795	0.0211
Employment	2.5906	2.0873
Family	-0.0247	0.0294
Age at First Birth	-0.0065	0.0051
Race	0.0730	0.1064
Total	-0.3565	-0.8191
Interaction		
Education	-0.0584	0.0584
Employment	-0.5033	0.5033
Family	0.0541	-0.0541
Age at First Birth	0.0116	-0.0116
Race	0.0333	-0.0333
Total	-0.4626	0.4626

Table 4. Median Contributions of Nonemployment Earnings to Total Family Income.

	1982		2002	
Median percentage of contribution to family income				
Child support	17%	($1,568)	11%	($630)
Public aid	100%	($4,704)	38%	($2,281)
Both	90%		41%	

Notes: Figures restricted to respondents receiving each type of aid. Results are weighted.
Numbers in parentheses are median amounts in 2004 dollars.

Figure 1. Family Income by Year for Never-Married Mothers.

Income

30000

25000

20000

15000

10000

5000

0

1980   1985   1990   1995   2000   2005

Year
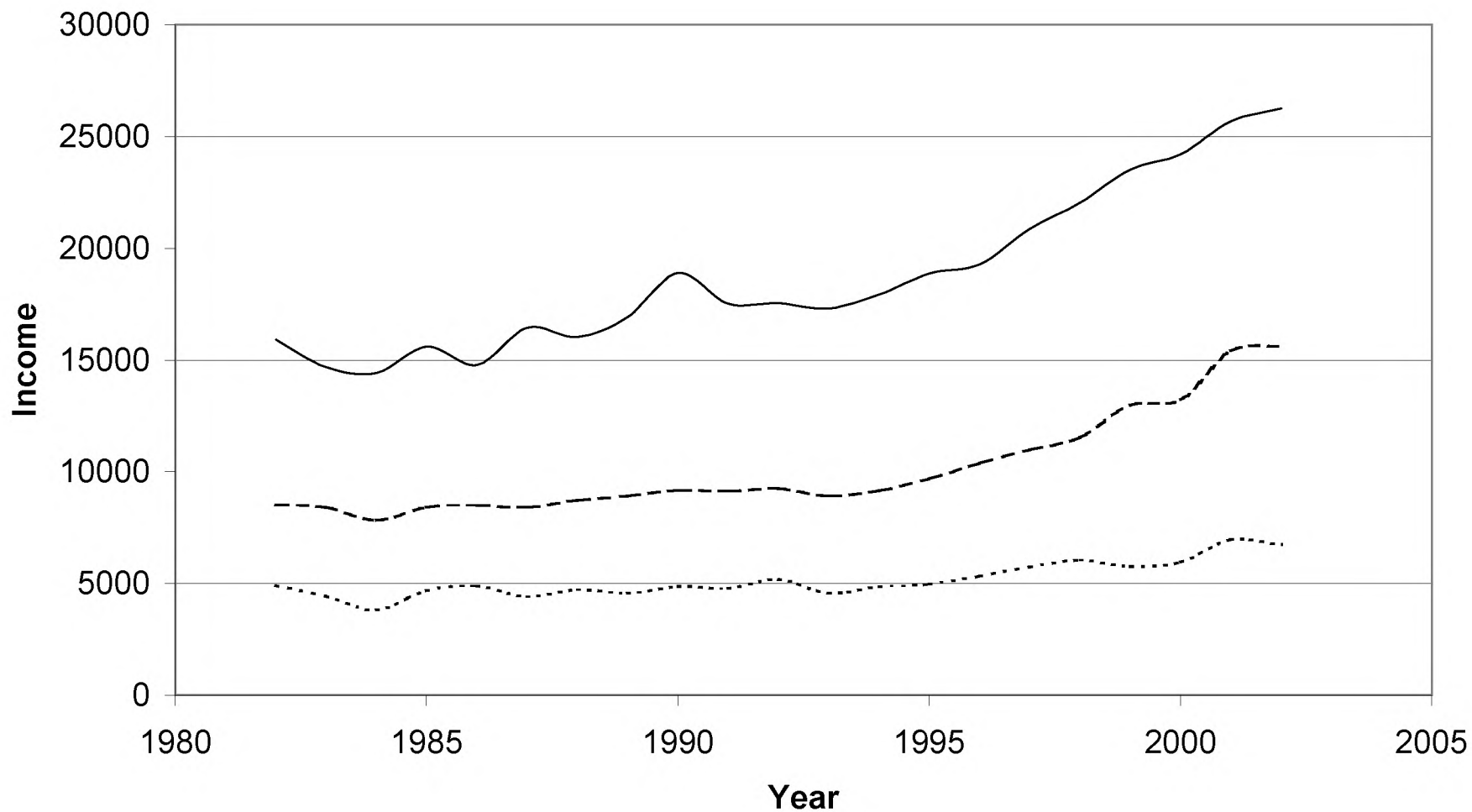
······· Lower quartile   – – – Median   —— Upper quartile
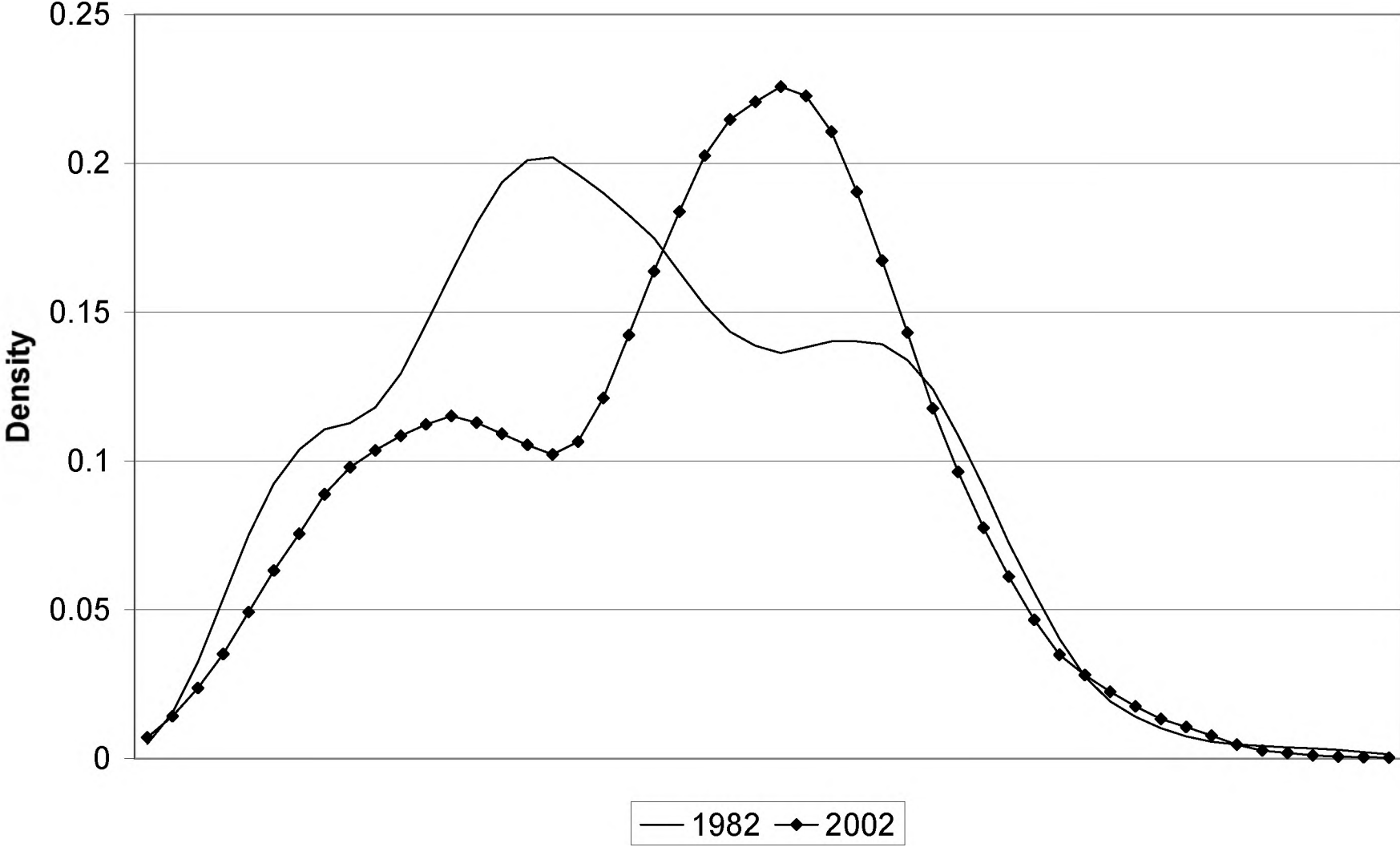
Figure 2. Predicted Density Traces for 1982 and 2002.

Figure 3. Counterfactual Density Traces.

Legend: 1982 Data, 1982 Model — 1982 Data, 2002 Model — 2002 Data, 1982 Model