Steady-State Inequality? Single Motherhood and Income

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Short Abstract

A curious and unhappy feature of family demography is the stubborn persistence of poverty in mother-headed families. Between 1980 and 2017, the income gap between single-mother families and married-mother families barely changed. We explore the income dynamics of single motherhood using data from the NLSY79, focusing on different types of single-mother households. While differences remain using standard statistical models, fixed-effect models show that the unmeasured differences between divorced- and never-married mother-headed families are crucial for understanding income disparities. Controlling for these differences suggests that variation in income by family structure has more to do with the number of earners in a household than the characteristics of those workers.

Adopted from our forthcoming book, *The Changing Economics of Single Motherhood* (working title), under contract to Oxford University Press.

A curious and unhappy feature of family demography is the stubborn persistence of poverty in single mother families. Thirty-five years ago mother-headed families were five times as likely to be poor as two-parent families (Garfinkel and McLanahan 1986). By 2017 this poverty ratio had barely budged (Fontenot, Semega, and Kollar 2018, Table 4). That single-parent households would be poorer than those with two workers is not a surprise: we'd always expect a disparity based on the extra income afforded by having two wage earners. Still, the absence of any change in the income gap is surprising in an era when women have made great strides in the workforce, entered it with higher levels of educational attainment, and are more likely to work through their child-bearing years.

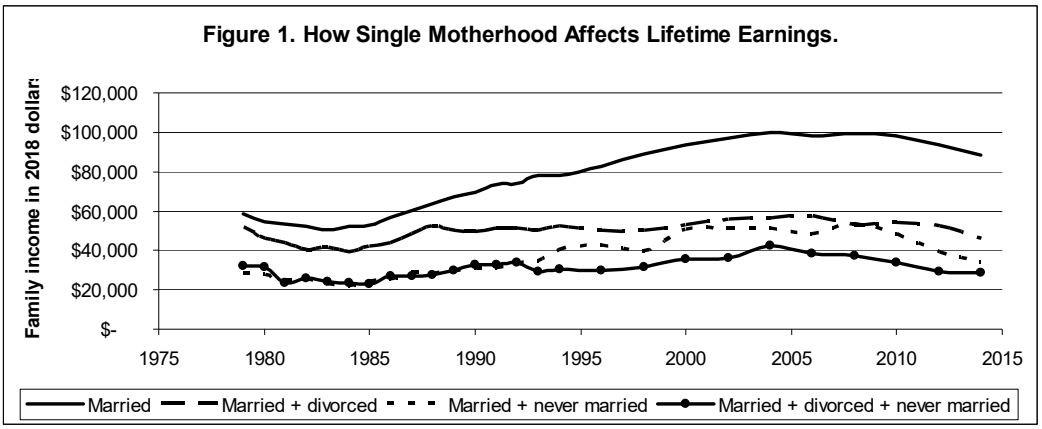
One key change that has occurred over this time period concerns the composition of single mothers (McKeever and Wolfinger 2011, 2012). Thirty-five years ago most of them were divorced women; now most are women who gave birth out of wedlock. Compared to divorced mothers, never-married mothers have less human capital and lower labor force participation. In this paper, we determine whether this change in the composition of single-mother families can explain the persistent economic disadvantage associated with single motherhood.

We explore this question using 35 years of data from the 1979 cohort of the National Longitudinal Survey of Youth. The data allow us to follow a cohort of women from adolescence into middle age. Most became mothers after the start of the panel, so the data offer insight into causality: do measured and unmeasured differences between respondents explain income disparities? We are able to examine whether single mothers have lower incomes as a consequence of having children, or if they would have ended up poor even if they hadn't become mothers.

We use two strategies to identify the causal mechanisms affecting income. First, we estimate fixed effects models. Second, we rely on the naturally occurring experiment identified by economist V. Joseph Hotz and his colleagues (Hotz, McElroy, and Sanders 2005). Hotz et al. studied the economic consequences of a teenaged birth by contrasting young women who miscarry with those who carry their pregnancies to term. We extend Hotz's method to all nonmarital fertility.

Preliminary results

Figure 1 reveals the extent of the persistent economic disadvantage associated with single motherhood. Any time spent as a single mother results in lower incomes across the time series. Furthermore, as this cohort of women age, the income gaps increase. At the same time, there is evidence that the effects of single motherhood on income aren't necessarily causal. Women who give birth out of wedlock begin the time series with notably lower incomes. Even women who first become single mothers via divorce have lower incomes in 1979 than those women who stay continuously married.



Source: NLSY79

The NLSY79 contains extensive data on respondents' families of origin, and looking at these data make it clear that women who end up as continuously married mothers enjoyed many early advantages. Table 1 illustrates these advantages. Married mothers are more likely to grow up in intact families, representing the well-documented intergenerational transmission of family structure (Wolfinger 2005). At the other end of the table, the data show that over half of women who give birth out of wedlock didn't grow up in two-parent families. Parental education is also higher for married mothers than for divorced moms and, especially, women who have children outside the bonds of matrimony. Finally, we present two measures of cultural capital, receipt of a family newspaper and having a library card. Newspapers and library cards are fairly insignificant in and of themselves, but they're both indicative the hard-to-measure social resources that promote social mobility by facilitating success in higher education and beyond—realms where never-married mothers have continually faced worse odds than do divorced single mothers. In both cases, future married mothers have the highest levels of such capital, never-married mothers have the lowest, and divorced moms are somewhere in the middle.

Table 1. Characteristics of Respondents' Families of Origin.

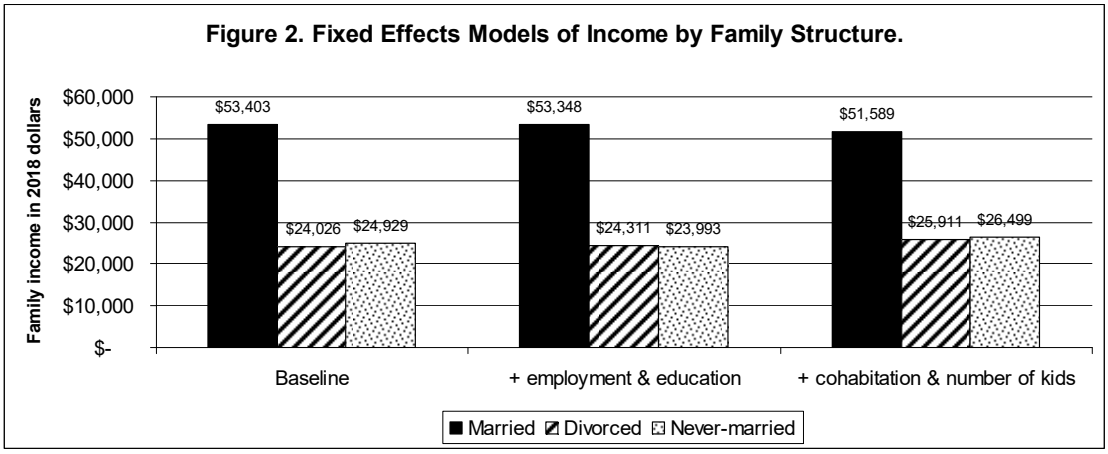
The percent of respondents who…	Married	Divorced	Never married
Grew up in a two-parent family	68	58	43
Mother graduated from high school	65	58	39
Mother graduated from college	9	7	3
Father graduated from high school	63	58	43
Father graduated from college	19	14	5
Family received a newspaper	80	77	63
Family member had a library card	76	75	64

Source: NLSY79

Multivariate Results

To have a baseline sense of how different characteristics of these populations are related to income, we first performed an ordinary least squares analysis of median lifetime income. This analysis showed that measured attributes, both of respondents and their families of origin, while broadly related to income attainment, have little ability to explain the family structure income disparities. Married mothers fare better by a wide margin, followed by divorced mothers, with never-married mothers having the lowest incomes even after controlling for myriad individual and familial differences.

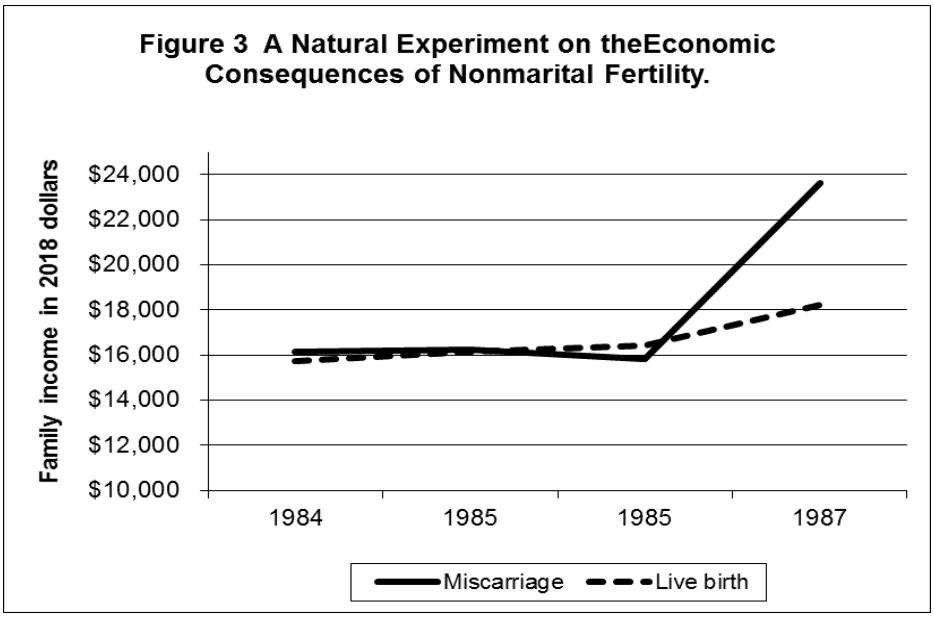
Fixed effects models tell a very different story. Overall, the model better captures the impacts of substantial differences in family background shown in Table 1. As shown in Figure 2, after controlling for time-invariate attributes via fixed effects, single-mothers as a group have similarly low incomes. That is, income differences between divorced and never-married mothers can be explained by individual and familial characteristics in the data. Collectively, however, these disadvantages can't explain why single-parent women have such low incomes compared to married mothers. This gap is substantial: married mothers have incomes more than twice what's sustaining single mothers: over $50,000 versus less than $25,000. It's not affected by employment and education, two factors we know are broadly associated with prosperity, as the statistical model controls for these differences. The most likely answer is also the simplest: families with married mothers are more likely to have two incomes, single mothers have one. Stripping away all the unmeasured confounds leaves us with this simple story.



Source: NLSY79

Fixed effects models are one way to examine the role of unmeasured differences in explaining the relative disadvantage of women who give birth out of wedlock. Another is the naturally occurring experiment proposed by economist V. Joseph Hotz and his colleagues (2005). They contrasted incomes for women who give birth out-of-wedlock to women who miscarry, and found little difference. We replicate his results for women who give birth out of wedlock.

The results are shown in Figure 3. The data start in 1984; by 1988, the number of new miscarriages is prohibitively small. Between 1984 and 1986, there are essentially no differences in income between unwed women who miscarry and those who carry their pregnancies to term. In 1987, women who miscarry have somewhat higher incomes.



Source: NLSY79

We are loath to attach too much significance to this last result, given that the number of miscarrying women drops to 22 in 1987. More broadly, these data show results are consistent with both Hotz and his colleagues and the fixed effects results: the adverse economic consequences of a nonmarital birth are not primarily causal, but reflect adverse and preexisting economic conditions. Never-married mothers would likely be impoverished even had they remained childless.

That having been said, there are causal effects of a premarital birth over the long run. Educational attainment may suffer (Upchurch and McCarthy 1990). Women who give birth out of wedlock have lower marriage rates, which will impact the number of potential wage earners in their households, something we have shown above to be crucial in generating income. There has also been extensive research demonstrating that each child a woman has cumulatively reduces her wages (Avellar and Smock 2003; Budig and England 2001; Budig and Hodges 2010; Waldfogel 1997). These studies collectively demonstrate how being a single-mother, and even more so one that has never been married, has concrete effects on income attainment.

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