Abstract

Over the past several decades, changes in patterns of family formation and stability have dramatically altered the settings and conditions in which children are raised. This change is characterized by later and less marriage, increasing non-marital fertility, and rising family instability. These changes have disproportionately affected those with low socioeconomic status and members of racial/ethnic minority groups (Ellwood and Jencks, 2004; Jencks and McLanahan, 2015). Using longitudinal data from the Panel Study of Income Dynamics, we examine how widening economic inequalities over time and across class in American Society in the stability of work and the quality of economic prospects contributed to these stratified patterns of family formation and stability and so exacerbated inequalities in the settings in which young children are raised. Our research spans a forty-year period of rapid economic and family change from 1968 to 2009. We harness rich measures of economic precarity at the individual level from the PSID and combine these with new group-level measures of economic uncertainty from the General Social Survey and Current Population Survey. We test several hypotheses: (1) that economic precarity and uncertainty interfere with union formation and stability; (2) that the growth in economic precarity and uncertainty over time have contributed to family change, and (3) that incorporating economic precarity and uncertainty into analyses of family formation and instability helps to explain race and class stratification in family behavior. In so doing, our research will address a gap at the intersection of the literatures on changes to the American economy and to the family.
Although a great deal of social science research has examined economic influences on family formation and stability, this literature has generally taken a narrow approach to measuring economic resources. Research at the individual level has shown that men’s employment status and earnings are indeed related to transitions to first marriage (see comprehensive reviews by Burstein, 2007 and Ellwood and Jencks, 2004), while research at the macro level has linked unemployment rates to rates of marriage, nonmarital fertility, and divorce (Schaller, 2012; Billy and Moore, 1992; Curtis and Waldfogel, 2009; Schneider and Hastings, 2015). While unemployment and low earnings clearly matter for family formation and stability, these static measures do not capture important longitudinal dimensions of individual economic wellbeing such as volatility in employment and income, provision of benefits, and perceptions of future economic prospects.

Yet, it is precisely these aspects of work and economic wellbeing that are the focus of much scholarly and public discussion of the changing American economy (i.e. Kalleberg, 2011; Steverman, 2014). For instance, recent studies report a large increase in family income volatility over the past forty years, using a variety of data sources and indicators (Hacker and Jacobs, 2008; Ziliak et al, 2011) and a recent study ties the experience of income volatility to divorce (Nunley and Seals 2010). Further, Americans appear to feel increasingly uncertain about their economic futures (Hollister 2011).

Scholars of work have conjectured that the rise of precarity and uncertainty will affect family formation and stability (Kalleberg, 2011), and demographers often note that economic precarity and uncertainty may be important determinants of family formation (Lichter, Qian, and Mellott, 2006; Cherlin, 2015). While several recent qualitative studies connect feelings of economic security and family dynamics (Pugh, 2015; Cooper, 2014; Silva, 2013), with very few exceptions (for instance, Xie et al, 2003; Schneider and Reich, 2014; Oppenheimer et al, 1997), there has not been a quantitative demographic effort to evaluate how economic precarity and uncertainty shape family formation and stability.

To address this gap in the literature, we analyze longitudinal data from the Panel Survey of Income Dynamics (PSID) from 1968 through 2009. We merge the PSID microdata with data at the geographic, occupational, and demographic group level on (1) perceptions of economic insecurity (from the General Social Survey (GSS)) and (2) variance in economic outcomes (from the Current Population Survey (CPS)). We estimate how economic precarity and uncertainty affect family formation and stability, pooling across cohorts. We then estimate if changes in levels of economic precarity and uncertainty explain cohort trends and differences by race and educational attainment in family formation and stability.

**Measures of Family Formation and Stability**

Our dependent variables drawn from the PSID are (1) timing of first marriage, (2) nonmarital fertility, and (3) family instability. We examine how these measures of family formation and instability are related to a set of novel measures of economic precarity and uncertainty, over and above any relationship to the standard measures of employment and income generally employed in the literature. Below, we describe our novel individual-level measures of economic precarity and group-level measures of economic uncertainty.
Individual-Level Measures of Economic Precarity
To capture the experience of economic precarity, we construct a set of time-varying individual-level measures of economic characteristics. One key independent variable will be a measure of income volatility. The PSID contain annual data on total net family income and on respondents’ own earnings and income. In keeping with the literature, we define income volatility as the short-term fluctuation in income in relation to permanent income (Hacker and Jacobs 2008). We also construct measures of job tenure, number of jobs concurrently held, and job instability (Bernhardt et al, 1999). Finally, we examine job quality in terms of access to employer-provided health and dental insurance, paid vacation and sick leave, and parental leave.

Group-Level Measures of Economic Uncertainty
To capture economic prospects, which we expect to influence feelings of economic stability or uncertainty, we construct a set of group-level economic measures that go beyond prior research in several ways. First, we define the “group” not just based on place of residence, but also based on socio-demographic characteristics and occupation. Second, we go beyond unemployment to measure multiple aspects of economic standing and uncertainty at the group level. Our approach then links individuals’ family behavior to their group-specific economic context, including not only unemployment, but also earnings variance, availability of fringe benefits, and group-level perceptions of economic stability and uncertainty. Conceptually, we expect that, over and above the individual measures of economic standing, these group-level measures will provide the appropriate field of reference for respondent’s expectations about their economic futures. More practically, by drawing in information at the group-level, we are able to include dimensions of economic uncertainty that are not available in the PSID or other individual-level longitudinal data sets. Finally, any relationships between these group-level measures and our family outcomes are less likely to be biased by the omission of unobserved individual-level characteristics.

We use data from the Current Population Survey (CPS) to construct aggregate measures of income and wage inequality, employment benefits, and work hours. We use data from the General Social Survey (GSS) to construct aggregate measures of current financial satisfaction, recent changes in financial situation, projection of future financial situation, perceived risk of being fired, and perceived ability to find an equally good job if necessary. From these data, we construct group-level measures, aggregating at the level of the (1) region, (2) two digit occupation code, and (3) race x education x sex sub-group.

Figure 1 shows the variation in the perceptions of job insecurity by education and race from the 1970s through 2000s based on GSS data. As shown, feelings that one might lose his or her job increased over time for the least educated group and for the Black and Hispanic groups in particular, in line with the idea that growing inequality in economic uncertainty could help to explain growing educational and racial divides in family formation and instability. We also note that there is considerable geographic heterogeneity in this and other measures of economic uncertainty that we take advantage of in our analyses.
Measures of Cohort
A key advantage of the PSID over such surveys as the NLS is that it contains large samples of members of several birth cohorts. We observe cohort members for the cohorts born in the 1930s through 1980s. For each cohort, we observe between 1,400 and 2,200 men and women between the ages of 20 and 40 who have the PSID “gene” and are tracked from the time they form an independent household onward.

Measures of Race/Ethnicity and Education
We measure race with dichotomous variables capturing whether respondents are Black, non-Hispanic or Hispanic (relative to white, non-Hispanic). We capture educational attainment with three time-varying predictors: having received a high school diploma, having attended some college, and having received a BA or more education (relative to having completed less than 12 years of education). These two sets of measures allow us to examine differences in family formation and stability by race and education and the extent to which differences in exposure to economic precarity and uncertainty may explain those divides in family instability.

Individual and Group-Level Controls
At the individual-level, we control for a set of time-varying economic characteristics that mirror those employed to date in the literature including income (Sweeney, 2002), working full-time for the full year, full-time for part of the year, part-time for either part of the year or the full year, or not working (Oppenheimer et al, 1997), current school enrollment, and public benefits receipt (AFDC/TANF and Food Stamps/SNAP).

We take advantage of the rich set of individual-level characteristics, introducing controls for factors such as age, family background, personality, cognitive ability, health, and criminal involvement. These controls help to guard against the possibility that our individual-level measures of economic precarity could be associated with unobserved individual-level characteristics that also shape family dynamics. This unobserved heterogeneity is less likely to pose a threat for our area-level measures. Nevertheless, at the area level, we introduce controls
for local area unemployment rates and non-economic characteristics of respondents’ places of residence (i.e., racial composition) and occupations (i.e., sex composition).

**Analytical Methods**
We construct a person-year file from PSID longitudinal data, recording time invariant characteristics of individuals as well as the rich set of time varying measures of individual characteristics. We merge this person-year file with our group-level economic measures using year and combinations of (1) place of residence (2) race x gender x education, and (3) occupation. In order to merge on place of residence, we use the state-identifiers in the PSID survey. In all of our analyses, we guard against the possibility of reverse causality, in which family transitions affect economic precarity, by lagging our key predictors to occur temporally prior to our outcome events.

We examine three sets of outcome variables: marital timing and rates, non-marital births, and children’s experience of family instability. We estimate discrete time-event history models of first marriage. We also transform our data to estimate the likelihood that respondents have ever married by certain fixed ages (25, 30, 35, and 40 years). Here, we collapse the measures of economic precarity, consolidating time-varying measures to cumulative exposures across the years preceding the fixed age point. For our models of non-marital births, we estimate a discrete time event history model with logistic regression that allows for repeated events (Teachman, 2011). Because women may have multiple events, we are also able to include person-fixed effects in these models to adjust for time-invariant sources of individual unobserved heterogeneity. For our models of family instability, we shift to the perspective of the first-born child. Children enter the risk set for family instability at birth. We use event history models that allow for repeated events in which the dependent variable is the experience of a transition in household family structure. Because children can experience multiple family transitions, we are able to include person fixed effects to control for time invariant characteristics of children.

**Statistical Models**
First, we examine the main effects of economic precarity on marriage, non-marital fertility, and relationship instability, net of controls for individual- and group-level confounders. To take the example of transition to first marriage, we estimate the following model:

\[
\log\left(\frac{p_{it}}{1 - p_{it}}\right) = \alpha_t + \beta P_{it} + \delta U_{gt} + \lambda X_{it} + \mu X_{gt}
\]

where \(p\) is the probability of marriage; subscripts \(i, g,\) and \(t\) denote the individual level, group level, and time, respectively; \(P\) is a vector of individual-level measures of economic precarity (e.g., income volatility, employer-provided benefits), \(U\) is a vector of group-level measures of economic uncertainty (e.g., perceptions of economic security, financial satisfaction, etc.). All models will control for fixed and time-varying confounders at the individual \((X_{it})\) and group \((X_{gt})\) level. The coefficients of primary interest are the main effects of our measures of economic precarity \((\beta)\) and group-level economic uncertainty \((\delta)\) on marriage.

Second, we examine if our novel individual-level measures of economic precarity and group-level measures of economic uncertainty explain the relationship between race/ethnicity
or education and first marriage, non-marital fertility, and relationship instability. We also examine if increasing economic precarity and uncertainty can explain time trends in marital timing, non-marital births, and relationship instability.

**Expected Findings**

Our research will provide rich descriptive statistics on the time trends in economic precarity and uncertainty across race and class groups at the individual and group level. We expect to show that the increase in economic precarity and uncertainty over time contributed to a retreat from marriage, and to increases in nonmarital fertility and family instability. Our expectation is that measures of economic precarity and uncertainty will explain more of the variation in family change across cohorts than standard measures of unemployment and earnings on their own. We also expect that the disproportionate rise in economic precarity and uncertainty experienced by African Americans and Latinos and by those with less than a college education help to explain the divergence in family behavior across race and class groups.
References


