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Women's Sequencing of First Births Relative to First  
Substantial Employment Before and After the 1990's  
Welfare Reforms

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# Women's sequencing of first births relative to first substantial employment before and after the 1990s welfare reforms

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## Abstract

The U.S. welfare reforms of the mid-1990s were intended not only to put single mothers to work, but also to change the way low-socioeconomic-status women structured their lives so that they might avoid so-called welfare dependency. We investigated whether the reforms may have promoted both goals by increasing the likelihood that young women obtain stable employment before having a first birth. We used retrospective reports of these life-course events from two surveys, each conducted before and after the reforms. Contrary to expectations, we found that women from the post-reform cohorts were instead less likely than women from pre-reform cohorts to have obtained stable employment before having a first birth. This unexpected direction of change, moreover, was not attributable to socio-demographic changes in cohort composition. Supplementary analyses of women's employment during pregnancy suggest secular increases in employment instability as a partial explanation.

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## **Introduction**

Since the implementation of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996 and its re-authorization in 2005, no federal entitlement to a minimum standard of living has existed for America's children (Gilbert 2009). Post-reform children's economic well-being has instead depended much more on their parents' and—for low socioeconomic-status children—especially their mothers' labor-market success (Eamon and Wu 2013). With the absence of a cash entitlement to parents of minor-aged children, concerns about adverse outcomes for children after the reforms have focused on families headed by 'disconnected' single mothers with neither cash welfare benefits nor earnings (Hildebrandt and Stevens 2009; Cancian et al 2014). Blank and Kovak (2009) estimated that over a fifth of single mothers were 'disconnected' in the mid-2000s, and two fifths had been disconnected for between 1 and 4 months at some time over a 3-year period.

The reforms were designed to avoid such 'disconnection' both by increasing single mothers' employment and changing the way low-socioeconomic-status women structured their work and family lives, to avoid so-called welfare dependency (Kaestner, Korenman, and O'Neill 2003). A number of studies have investigated changes in single mothers' workforce participation (Ellwood 2000; Meyer and Rosenbaum 2001; Grogger 2003) and others have investigated changes in fertility and marriage (Lichter, Graefe, and Brown 2003; Dyer and Fairlie 2004; Kearney 2004; Lopoo and DeLeire 2006). To prepare to financially support themselves and their children in this new regime, women's pre-childbearing human capital investments through schooling and experience in employment are expected to be important. Without early stable employment, young women are likely to experience subsequent difficulties in maintaining labor-

force attachment (Alon, Donohoe and Tienda 2001), especially following childbearing (Budig and England 2001). Although research has investigated whether women postpone motherhood to engage in more years of schooling (Kaestner et al 2003; Hao and Cherlin 2004), research to date has not addressed the possibility that women may postpone motherhood to gain employment experience and possible job security. The present study begins to address this topic by using retrospective data from two surveys conducted before and after welfare reform to analyze changes in women's timing of first substantial employment relative to the timing of their first births.

### *Policy Changes*

The Aid to Families with Dependent Children (AFDC) program provided federal entitlement to a minimum standard of living for children from 1935 (beginning as Aid to Dependent Children, ADC) until 1996, when it was replaced by the Temporary Assistance to Needy Families (TANF) program (Blank 2002). TANF includes sanctions for not meeting work requirements and a standard 5-year maximum for lifetime receipt. Whereas the predecessor AFDC program could be viewed as enabling a “career” of early childbearing supported by cash transfers while a recipient's children were still of minor ages (Rosenzweig 1999), the time-limit provisions of TANF were explicitly designed to disincentivize such a childrearing trajectory. With major enhancements to the Earned Income Tax Credit (EITC) program in the 1990s, supplemented by the Child Tax Credit (CTC) and supported by subsidized childcare (Bainbridge, Meyers, and Waldfogel 2003), this earnings-linked program instead became the main means of support for low-income families (Haveman et al 2015). The time-limit provisions of the TANF program, together with the work-incentivizing provisions of the EITC program, suggest that

investment in human capital through a combination of schooling and work experience before embarking on childbearing could increase post-reform women's chances of combining childrearing with a stable employment trajectory, thereby providing sufficient household income during childrearing (Herbst 2011a).

The reforms also, however, put in place incentives that may be viewed as incentivizing childbearing *before* obtaining secure employment. First, only after having a child is a woman eligible for EITC. Second, because low-wage employment garners the largest EITC subsidy, the program may work against incentivizing a woman to delay parenthood until her earnings increase. (For general theory on the relationship of life-course earnings trajectory to timing of first birth, see Cigno and Ermisch 1989.) Third, because a husband or partner's income counts against her EITC eligibility, this may provide an incentive to begin childbearing before partnering or marrying (Herbst 2011b). Finally, beginning childbearing before entering the workforce allows a woman to take advantage of the Age-of-Youngest-Child exemptions that waive work requirements for the TANF program (Hill 2012). Such overall program design is opposite to that in a number of high-income countries in which benefits, including replacement earnings and subsidized childcare, flow only to those women who have obtained secure employment before childbearing, and are universal rather than means-tested (Gustaffson 2001). Empirical studies have found that in countries with these universalist policies, first births are delayed among labor-market-disadvantaged women not in secure employment, whereas no such delay is seen in countries with means-tested programs like those in the U.S. (Meron and Widmer 2002; Rendall et al 2009).

Although no direct evidence exists on the topic of the present study, related evidence to date is at least hopeful with respect to changes in the timing of first stable employment relative to

the timing of first birth between pre-reform and post-reform cohorts. Between the immediate pre-reform period and the present, teenage fertility has fallen by more than half, although only a small fraction of this decline can be ascribed directly to the reforms (Kearney and Levine 2015). Such falls in teenage fertility should make it more likely that women would complete schooling and enter the workforce before childbearing. A few studies have compared life-course sequencing of pre- and post-reform cohorts with respect to early fertility, marriage, and school completion (Kaestner et al 2003; Hao and Cherlin 2004; Hao, Astone, and Cherlin 2007), and have found some evidence of women staying in school longer (see also Offner 2005). As we noted above, no previous study has investigated changes in timing of entry to the workforce relative to timing of family formation.

### *Macroeconomic Changes*

Macroeconomic changes across the pre-reform to post-reform period appear to have disadvantaged low-wage workers, as part of a long-term trend toward labor market polarization (Autor, Katz and Kearney 2006). Factors driving this trend include skill-biased technical change that privileges the skills of more-educated workers and relegates the work of lower-skilled workers to machines, declines in the real value of minimum wages, and declines in enrollment and influence of labor unions (Autor and Dorn 2009). Labor market polarization is characterized by an increased dispersion between the wages of the highest- and lowest-paid workers, and by a splitting of the labor market into stable, well-paying “good jobs” that offer benefits and paths for advancement and promotion, and unstable, low-paying “bad jobs” that do not offer benefits, and offer no opportunities for career growth (Kalleberg 2011). These “bad jobs” are less conducive to forming long-term career trajectories and accumulating wealth than are “good jobs.”

Worsening labor-force prospects may function to dissuade low-educated women from attempting to begin stable employment with a career trajectory before beginning childbearing. An increase in the proportion of women facing long-term prospects of “bad jobs” may have reinforced the low-wage orientation of the EITC program discussed above. Women’s chances for labor-market success and employment-contingent income including from EITC may therefore plausibly have become less dependent on whether they have children before or after they enter such jobs.

### *Changes to Population Composition*

Changes to the race/ethnic composition of the U.S. population may have combined with the above macroeconomic changes in the late 20<sup>th</sup> and early 21<sup>st</sup> centuries to make post-reform cohorts less likely to engage in first stable employment before a first birth. Births to Hispanic mothers increased from 17% in 1995 to 23% in 2012. The children of foreign-born Hispanic mothers also increased substantially as a proportion of all U.S. births (Martin et al 2013). The parents of children of immigrants face greater restrictions on welfare receipt (Kaestner and Kaushal 2005). Nevertheless, among the few studies to consider demographic changes occurring between the pre-reform and post-reform periods, Snarr (2013) concludes that without the observed large increase in the Hispanic welfare-eligible population, the caseload would have fallen much more than it did. Sociological theories posit that a woman’s labor-market opportunities and support from extended family differ according to her race/ethnicity and nativity (e.g., Glick et al 2006). Groups facing “blocked opportunities” due to discrimination in the labor market may have less incentive to delay fertility. Black and Latina women with low educational attainment may suffer greater labor-market discrimination than non-Hispanic White women with comparably low educational attainment. The growth of the Hispanic population in

the U.S. has also been argued to enhance early-fertility norms especially among Latina women with low educational attainment who live in neighborhoods of high co-ethnic concentration (Batson 2012; Minnis et al 2013). Thus the reforms' work-oriented incentives may have had their smallest effect on the behavior of Hispanic women, at the same time as the proportion of Hispanic women entering their employment and childbearing ages has increased. The few studies comparing pre- and post-reform cohorts of either women (Kaestner et al 2003) or children (Grieger and Wyse 2013), however, have compared U.S.-born Black and White parents and their children. Previous studies have relied on period data to make Hispanic and immigrant comparisons (Kaestner and Kaushal 2005). Such data do not address the ordering of life-course events, as we seek to do here.

Changes in race/ethnic and nativity distributions were not the only changes to socio-demographic composition between the pre-reform and post-reform cohorts. Driscoll and Abma (2015) note substantial gains in educational attainment. They find that the declines in teenage fertility between pre-reform and post-reform periods can be attributed mostly to changes in socio-demographic composition, including educational gains. Whether changes in the sequencing of first birth and first substantial employment can also be attributed mostly to changes to socio-demographic composition is an empirical question that we address in our study.

## **Data and Method**

### *Data*

We use data from the 1995, 2002, and 2006-10 Cycles of the National Survey of Family Growth (NSFG, National Center for Health Statistics 2014), and the 1996, 2001, 2004, and 2008 Panels of the Survey of Income and Income and Program Participation (SIPP, U.S. Census

Bureau 2014). The NSFG and SIPP together allow us to compare life-course routes to first birth for pre-reform versus post-reform cohorts of women. A major strength of both data sources is that they are representative of both U.S.-born and foreign-born women in their ages of workforce entry and family initiation before and after the 1990s reforms were implemented. Each sampled from cross-sections of the population observed in the respective pre-reform and post-reform periods. The only country of birth consistently identified across both surveys is Mexico, and so we divide foreign-country origin only into Mexico and All Other Countries. Mexico accounts for a large proportion of all foreign-born individuals in the U.S., especially at these young-adult ages, and Mexicans' fertility in the U.S. is both earlier in timing and greater in quantum than other major race/ethnic groups (Carter 2000, Wildsmith and Raley 2006; Batson 2012).

From each survey, we code the calendar year in which the respondent first worked fulltime continuously for 6 months or more. Questions about first substantial employment, however, differ between the NSFG and SIPP. In the NSFG's 2002 and 2006-10 cycles, respondents were asked "Have you ever worked for pay, full-time, for six months or longer?" and were then asked in which month and year that spell of fulltime employment began. In the NSFG's 1995 cycle, respondents were asked for the months and years of the beginning and end of all the employment spells in which they worked fulltime, including any spell ongoing as at survey time. We constructed their first spell of fulltime employment of six months or longer from these responses. In the SIPP's 1996, 2001, 2004, and 2008 panels, the respondent was asked in Wave 1 "[When] was the first job or business...that lasted 6 straight months or more?" The respondent was not asked whether that job was fulltime or part-time, but instead was asked "During all the time [you] worked, did [you] mostly work 35 or more hours per week?" We combined the answers to these questions to code the first job or business that lasted 6 months or

more as the first fulltime employment spell if the answer is “yes” to the second question. We characterize these respective employment measures in the NSFG and the SIPP as representing women’s first substantial employment. We coded first substantial employment as preceding a first birth if the 6 month period of continuous job (SIPP) or fulltime employment (NSFG) occurred in a calendar year preceding the year of any first birth. We coded a first birth as preceding first substantial employment if that employment spell occurred in the same year or later than the year of the first birth. The SIPP also asked retrospective questions on whether a woman had any (duration-unspecified) fulltime employment before and after a woman’s first birth. These questions were asked in the Wave 2 Fertility topical module, four months after Wave 1. We used this information in supplementary analyses, as shown below.

### *Analyses*

We divide women into three sets of cohorts, “pre-reform,” “transition,” and “post-reform.” We classify women attaining ages 26-30 in 1995 or 1996 as being “pre-reform.” They are observed retrospectively in the 1995 cycle of the cross-sectional NSFG and in the retrospective questions of the first two waves of the SIPP 1996 panel. We classify women attaining ages 26-30 in 2008 and 2006-10 as “post-reform.” We argue this is appropriate in terms of the family-policy environments they experienced, especially given the major changes in the EITC programs that had already happened by around 1993 (Blank 2002). They are observed respectively in the NSFG 2006-10 and in the retrospective questions of the first two waves of the SIPP 2008 panel. We classify women ages 26-30 in the NSFG 2002 cycle and in the 2001 and 2004 SIPP panels as “transition” cohorts, experiencing some years “pre-reform” and some “post-reform.”

In a separate paper (Shattuck and Rendall 2015), we checked for accuracy of retrospective collection of employment histories, using the annual panel National Longitudinal Survey of Youth, 1997 cohort (NLSY97) data matched respectively to the NSFG and SIPP retrospective-question definitions. We found overall reliable measurement of first substantial employment in both the SIPP and NSFG. The accuracy of the NSFG retrospective reporting of first fulltime employment of 6 months or longer was very high: 46.1% in the NSFG versus 48.2% in the NLSY97 for all U.S.-born women (not statistically different). The accuracy of the 2004 and 2008 SIPP retrospective reporting of first job (irrespective of whether part-time or fulltime) of 6 months or longer was lower but still reasonable: 78.1% in the 2004 Panel and 76.1% in the 2008 Panel versus 85.2% in the NLSY97 for all U.S.-born women (both SIPP estimates statistically different from the NLSY97 estimate).

Following Kaestner et al (2003), we adopt a ‘cumulative probability’ rather than hazard approach to our multivariate estimation of changes in the sequencing outcome. In this multivariate estimation, we contrast the pre-reform and post-reform cohorts. As noted above, we sorted women into pre-reform and post-reform cohorts by using the survey in which they were observed at ages 26 to 30. The pre-reform cohorts were drawn from the 1995 Cycle of the NSFG and the 1996 Panel of the SIPP. The post-reform cohorts were drawn from the 2006-10 Cycle of the NSFG and the 2008 Panel of the SIPP. As we show below, around 90% of women had either had a first birth or first substantial employment by ages 26 to 30. Relying on predictor variables common across the two surveys, we estimated the following multinomial logit (MNL) model on each pre-reform and post-reform cohort samples:

$$\Pr\{Y\} = \text{MNL}(\text{Age, Race/Ethnicity and Nativity, Educational Attainment}) \quad (1)$$

The multinomial, first employment and first birth outcome Y has the following four categories: 1) first birth before or in the same year as first substantial employment, 2) first birth after first substantial employment, 3) first substantial employment without having yet had a first birth, and 4) having experienced neither a first birth nor first substantial employment. We estimated separate equations for samples of the NSFG and for the SIPP, as the first-employment variable differs between the NSFG and SIPP as noted above. We used sample weights to account for the different oversampling designs used in the two survey sources and survey years.

We then performed regression-decomposition analyses on the birth-employment sequence outcome Y of equation (1) above. Specifically, predicted values of the distribution of Y were derived using the regression coefficients for the pre-reform cohort and the socio-demographic characteristics of the post-reform cohort, and vice versa. This allowed us to evaluate the extent to which any changes in the sequencing of first birth before first substantial employment between the pre-reform and post-reform cohorts were due to changes in socio-demographic composition—increases in the Hispanic proportion of those cohorts, possibly offset by changes in the educational composition of the cohort—versus to differences in sequencing behavior of the different socio-demographic groups in the pre-reform and post-reform cohorts. We also used the 1996 and 2008 SIPP Panels to perform supplementary descriptive analyses of the prevalence of fulltime employment, part-time employment, or no employment during the pregnancy leading to the first birth.

## **Results**

We first describe trends, and evaluate congruence in reports of trends, in first birth and first stable employment and their sequencing between the NSFG and SIPP across pre-reform, transition, and post-reform cohorts. These findings are presented in Table 1, where women at ages 26-30 are compared across four SIPP panels and three NSFG cycles. Sample sizes are larger in the SIPP than in the NSFG, but sizeable in both surveys. The total sample size of women ages 26-30 aggregated over the four SIPP panels is 11,541, whereas for the three NSFG cycles it is 5,507.

[TABLE 1 ABOUT HERE]

Unsurprisingly, reporting of first birth, a clearly-defined event, is more consistent across the two surveys than is reporting of first period of fulltime employment of 6 months or more, which may both be less personally salient and more definitionally-ambiguous. Consistently around three fifths of women ages 26-30 had already given birth across all four SIPP panels and all three NSFG cycles. Both the levels and trends in first birth and first employment sequences across the pre-reform, transition, and post-reform cohorts are nevertheless quite similar between the NSFG and SIPP. Most notably, first substantial employment precedes first birth with *lower* frequency in the post-reform cohort than in the pre-reform cohort of both. Between the 1996 and 2008 SIPP panels, the proportion of 26-30 year old women who had given birth before they had a job lasting 6 or more months increased from 27.3% to 30.9%. Between the 1995 and 2006-10 NSFG cycles, the proportion of 26-30 year old women who had given birth before they had experienced a fulltime-employment spell of 6 or more months increased from 21.4% to 27.5%. In the SIPP, moreover, there is a consistent upward trend from the pre-reform to post-reform

cohorts in the percentage of all sequences in which the first birth precedes a first spell of substantial employment. In both the SIPP and NSFG, the main compensating trend is the decrease in the percentage of women who had a first birth by age 26-30 *after* at least one spell of substantial employment. These results describe behavior among the 1990s reforms' target population that is inconsistent with the behavioral-change goals of the reforms.

[TABLE 2 ABOUT HERE]

Table 2 shows differences in composition of the population of 26-30 year old women by race/ethnicity and nativity, and by educational attainment, between 1995 and 2006-10 in the NSFG, and between 1996 and 2008 in the SIPP. It also shows women's sequencing of their first jobs and first births separately by race/ethnicity/nativity and educational attainment levels. Percentages of U.S.-born Hispanic and foreign-born Mexican women, and women in the "Other" category (which is a heterogeneous category that includes foreign-born Hispanics from countries other than Mexico) all increased by between about 2 and 4 percentage points between the NSFG and SIPP's pre-reform and post-reform cohorts. Taken together, U.S.-born Hispanic and foreign-born Mexican women increased from 11.0% in 1996 to 18.1% in 2008 in the SIPP, and from 10.4% in 1995 to 14.4% in 2006-11 in the NSFG. The share of U.S.-born White women among women aged 26-30 decreased between pre-reform and post-reform cohorts (66.8% in 1995 versus 57.9% in 2006-10 in the NSFG, and 65.3% in 1996 versus 56.9% in 2008 in the SIPP). Percentages of U.S.-born Black women held relatively steady at 11-13%.

Educational distributions between pre-reform and post-reform cohorts also changed. The percentage of women aged 26-30 with only a high school diploma decreased, from 37.0% to

23.2% in the NSFG, and from 30.5% to 22.7% in the SIPP. Both surveys also show comparable increases of roughly 4-5 points in percentages of women with some college and with a Bachelor's degree or more. For example, percentages with a Bachelor's degree in the NSFG rose from 27.3% in 1995 to 32.6% in 2006-10. Percentages of women with some college in the NSFG rose from 25.0% in 1995 to 29.1% in 2006-10, and in the SIPP rose from 33.8% in 1996 to 38.2% in 2008. The surveys differ with respect to the trends they show in women's changed likelihood of having less than a high school diploma. The NSFG shows the percentage with less than high school increasing by about 4 percentage points, from 10.7 to 15.2%, while in the SIPP it held relatively constant at about 13%.

Table 2 also shows changes by race/ethnicity/nativity and educational attainment in women's sequencing of first birth and first substantial employment. U.S.-born White women in the post-reform cohorts were somewhat more likely to sequence their first births before their first jobs than the same group of women in the earlier cohort (up from 15.9% to 17.9% in the NSFG, and from 22.9% to 27.6% in the SIPP). Post-reform cohorts of U.S.-born White women were much less likely to sequence their first substantial employment before their first birth (down from 41.2% to 34.7% in the NSFG and 35.7 to 27.1% in the SIPP). In the NSFG, U.S.-born Black women in 2006-10 were more likely by roughly 7 percentage points to sequence their first birth before their first substantial employment (41.0% versus 34.1%), although in the SIPP this held steady between the pre-reform and post-reform cohorts at just over 36%. In the SIPP, however, U.S.-born Black women in 2008 were less likely by roughly 8 percentage points to sequence their first substantial employment before their first birth (27.1% in 2008 versus 35.7% in 1996), whereas this percentage held steady at roughly 33-34% in the NSFG. U.S.-born Hispanic women in pre-reform and post-reform cohorts in the NSFG were both about equally

likely (roughly 31-33%) to sequence their first births before their first substantial employment. In the SIPP, however, U.S.-born Hispanic women were much more likely in the post-reform cohort to sequence their first birth before their first substantial job (44.9% versus 33.8%). The NSFG and the SIPP show opposite trends for Mexican-born women. In the NSFG, this group of women was much more likely to sequence first birth before first substantial employment in the post-reform cohort (63.5% versus 47.4%), whereas in the SIPP the post-reform cohort they were less likely to do so (54.0% versus 61.0%). Nonetheless, for Mexican-born women, this particular life course sequence comprises the largest percentage in both years of both surveys. Post-reform cohorts of women in the “Other” category more likely to have a first birth before first substantial employment in the post-reform cohort in the NSFG, whereas no change was seen between pre- and post-reform cohorts in the SIPP.

Our results show some notable changes by educational attainment in how women sequenced their first births and first jobs, and these changes were found consistently across the two surveys. In both surveys, women with less than a high school education—a group who were a major target of the reforms—changed their first birth and first employment sequencing behavior very little. In both pre-reform and post-reform cohorts in both surveys, roughly 62-64% of women sequenced a first birth before first substantial employment, and roughly 27-31% sequenced first substantial employment before a first job. On the other hand, post-reform cohorts of women with a high school diploma were roughly 7% more likely to have a first birth before first substantial employment (32.6% in 2006-11 versus 25.0% in 1995 in the NSFG, and 37.6% in 2008 versus 30.1% in 1996 in the SIPP). The percentages of women with some college education who sequenced their first birth before first substantial employment increased even more strikingly between the pre-reform and post-reform cohorts, up from 12.3% to 24.4% in the

NSFG and from 22.1% to 30.8% in the SIPP. Less change occurred between the pre-reform and post-reform cohorts among the most educated women, which is expected given that welfare-program changes would typically not be relevant for their behavioral choices. Women with a Bachelor's degree remained about equally likely in pre-reform and post-reform cohorts in the NSFG to sequence a first birth before first substantial employment (roughly 9%). This percentage increased slightly in the SIPP (18.4% in 2008 versus 14.4% in 1996). The likelihood among Bachelor's-degree women of sequencing a first job before a first birth also held steady at about 18-23% in the SIPP and 20-23% in the NSFG.

[FIGURES 1 AND 2 ABOUT HERE]

The above results, however, do not allow us to say whether overall changes in first employment and first birth sequencing between pre-reform and post-reform cohorts were driven by changes in socio-demographic composition (i.e., increased numbers of women from groups that are more likely to have a first birth before substantial employment) or by changes in behavior (i.e., increased sequencing of first births before substantial employment among women in a given socio-demographic group). Our regression decomposition clarifies this distinction. Figure 1 shows the results of our decomposition using the NSFG. Figure 2 shows results using the SIPP. (See Appendix Tables A1 and A2 for the separate regression estimates.) Both sets of results indicate that the increase in women's likelihood of having a birth before first substantial employment is due to behavioral change rather than compositional change. Applying 2006-10 women's coefficients for the sequencing of first birth relative to first substantial employment to 1995 composition (that is, assuming behavioral-change only) results in an increased probability

of engaging in this life course pattern of .05 over 1995 observed results (.26 versus the observed .21), whereas applying the 1995 women's coefficients for the sequencing first birth relative to first substantial employment to 2006-10 composition (that is, assuming composition-change only), results in a barely-changed probability of engaging in this life course pattern over 1995 observed results (.22 versus the observed .21). A similar pattern is seen in the SIPP. Application of 2008 women's sequencing-equation coefficients to 1996 socio-demographic composition also results in a substantially-increased probability of sequencing first birth before first substantial employment of .05 over 1996 observed results (.33 versus the observed .28), whereas applying the 1996 coefficients to the 2008 composition results in no change over that observed in 1996.

[TABLE 3 ABOUT HERE]

To understand better the sources of the unexpected changes in birth and employment sequencing described above, we used SIPP data to examine an additional indicator of sequencing of first employment and first birth: whether women worked for pay (duration unspecified) fulltime, part-time, or not at all during the pregnancy leading to their first birth. We looked at these overall and by whether the woman had experienced substantial employment (for 6 months or more) before her first birth. Results are shown in Table 3. Overall, among all women with a first birth, we found no statistically-significant change between 1996 and 2008 in women's likelihood of working fulltime, part-time, or not working for pay during the pregnancy of that birth. However, among post-reform women whose first birth preceded their first substantial employment, there were statistically-significant changes. In 2008, more than a third (36.6%) had a fulltime job sometime during their pregnancy, up from 28.9% of women in 1996. Although

these results are only suggestive, they point to the declines we found in the proportions of women in the post-reform cohorts with any substantial first employment preceding their first birth being at least partly due to declines in job stability experienced between the pre-reform and post-reform cohorts.

## **Summary and Conclusions**

Using retrospective reports of first substantial employment and first birth from women entering reproductive and workforce ages before and after the mid-1990s welfare reforms, we found that women from the post-reform cohorts were less likely to have obtained stable employment before a first birth, and more likely to have sequenced their first birth to occur before their first substantial employment. This is surprising given the emphasis on work incentives in the reforms. It is also worrying given that the wellbeing of low-income single mothers and their children in the post-reform period primarily depends on mothers' success in the labor force, absent the welfare benefits of the pre-reform period that provided a minimum level of cash income to single mothers with dependent-age children (Eamon and Wu 2013).

In order to ascertain whether changes in the likelihood of sequencing a first birth before substantial employment, or vice versa, were due to behavioral change versus to changes in race/ethnic/nativity and educational-attainment composition, we conducted a regression decomposition with women's race/ethnicity/nativity and educational attainment as covariates. U.S.-born White women were a smaller proportion of the post-reform than pre-reform cohorts, with Hispanic women proportionately increasing. The educational attainment of post-reform cohorts, meanwhile, increased compared to that of pre-reform cohorts. These two types of socio-

demographic composition change were offsetting with respect to their effects on the sequencing of first births relative to first substantial employment. We therefore found that compositional changes cannot account for the overall increase in the prevalence of sequencing of first births before first substantial employment between the pre-reform and post-reform cohorts.

Previous studies of low-income women's schooling, employment, and family outcomes after welfare reform have focused largely on how these outcomes vary in cross-section or in period-specific employment and family-demographic event behavior. However, our study indicates the utility of reorienting scholarly and policy debate toward a focus on how these outcomes unfold across women's life-course trajectories. We argued that the structure of the EITC and TANF programs may incentivize early childbearing. EITC extends eligibility, and TANF extends work exemptions, only to women who have already begun childbearing. Furthermore, EITC benefits are reduced for women with an earning partner, and with higher earnings. That is, for women who enter adulthood with the prospect of limited labor-market opportunities, and whose pool of prospective partners has similarly-limited labor-market opportunities, a life-course strategy of low-wage employment and single parenthood may at least appear to be an economically rational course of action. Our results show no evidence that the reforms have incentivized or enabled women to re-orient their life-course sequencing toward stable employment careers that precede childbearing. Instead, young women in post-reform cohorts have been *more* likely to have children before embarking on stable employment relative to pre-reform cohorts. We speculate that this may be a contributor to the disturbingly-large numbers of 'disconnected' single mothers, with neither cash welfare benefits nor earnings (Hildebrandt and Stevens 2009; Cancian et al 2014), and suggest that further research be conducted to better understand these potential connections.

Our analyses also investigated whether the behavior of young women in some socioeconomic groups changed more than those in other groups, and in what directions. We found that sharp increases in the likelihood of sequencing first births before first substantial employment occurred among women who had a high school diploma or some college education short of a Bachelor's degree. In this respect, women in the lower-middle to middle of the education distribution are increasingly exhibiting life-course sequencing patterns less like their most-educated cohort members and more like their least-educated cohort members. This may be seen as yet another manifestation of a broad trend towards greater family-demographic polarization along socioeconomic lines (e.g., Cherlin 2010).

In a supplementary analysis, we looked at women's employment (irrespective of job duration) during the pregnancy of their first birth. We found that among women who had a first birth before first substantial employment, those from post-reform cohorts were more likely to have worked fulltime during their pregnancy than were those from pre-reform cohorts. It may then be that substantial fractions of women in the post-reform cohorts experienced some fulltime employment before giving birth, but not *stable* fulltime employment. Consistent with an overall trend away from employment security in this period (Kalleberg 2011), job stability may have become more elusive for post-reform cohorts of young women. More research into detailed histories of employment patterns (see, for example, Pavetti and Acs 2001) between pre- and post-reform cohorts is called for to better understand these changes. Without a transformation of the life-course patterns of women at risk of becoming single mothers toward behaviors that will better prepare them for a stable employment trajectory, and without accompanying macroeconomic and family-policy contexts to support such trajectories, it is unclear that

America's children will be provided with a minimum standard of living in the post-entitlement era.

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Figure 1: Decomposition of First Substantial Employment and First Birth Sequencing, Women Aged 26 to 30 in 1995 and 2006-10, National Survey of Family Growth

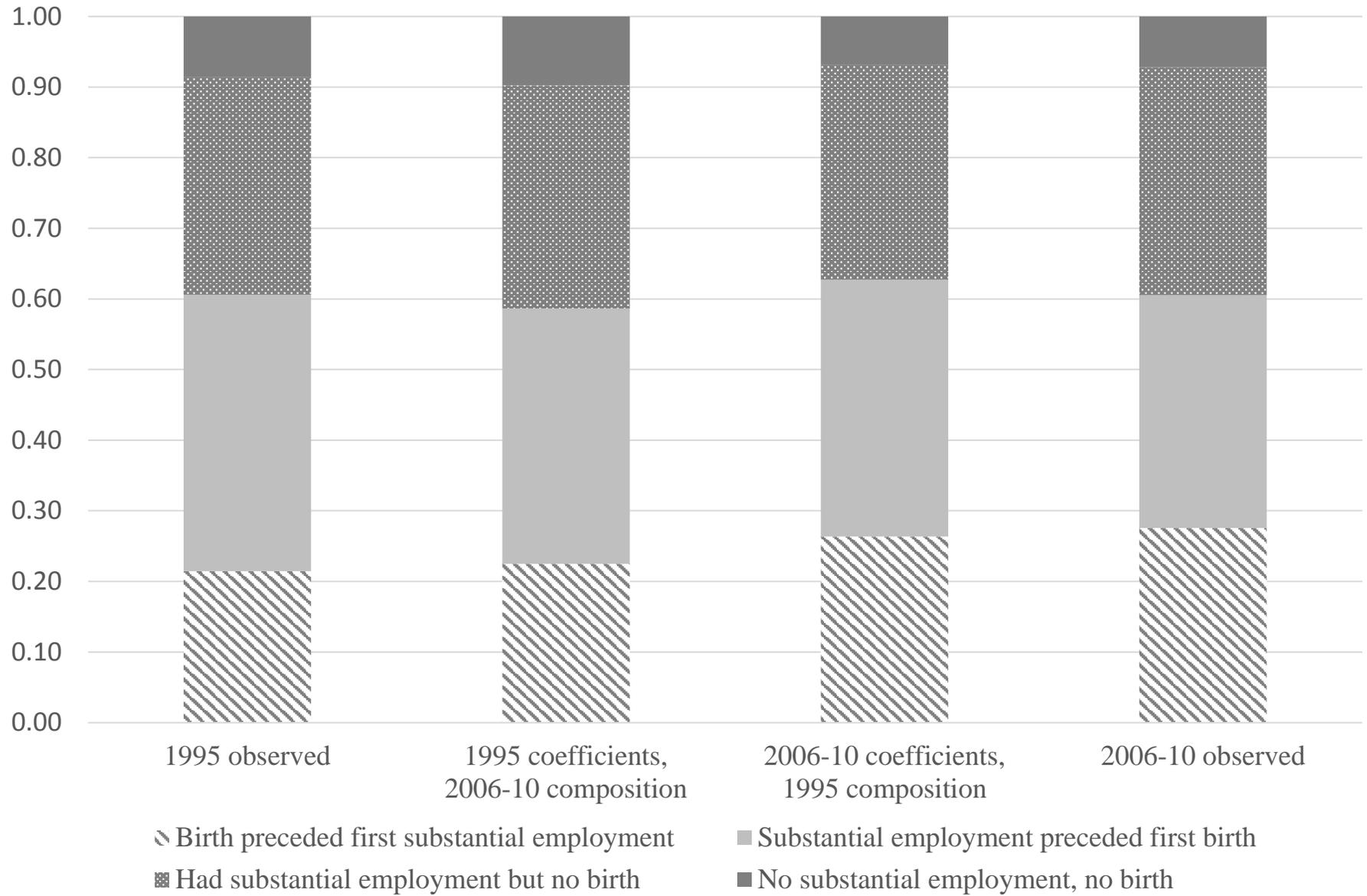


Figure 2: Decomposition of First Substantial Employment and First Birth Sequencing, Women Aged 26 to 30 in 1996 and 2008, Survey of Income and Program Participation

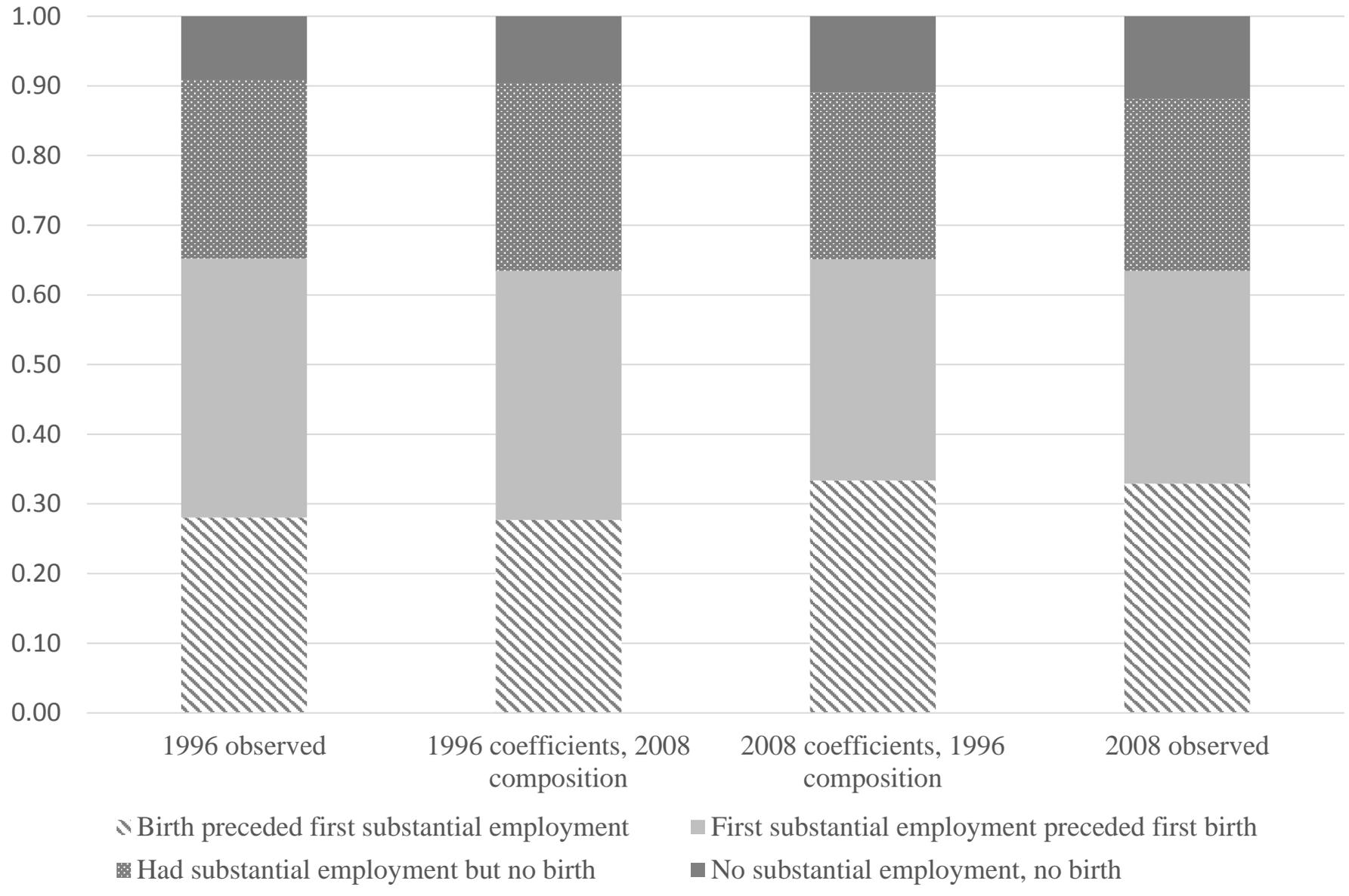


Table 1: Distributions of first birth and first job sequence outcome in pre-reform, transition, and post-reform cohorts, women aged 26-30

	Survey of Income and Program Participation (SIPP)				National Survey of Family Growth (NSFG)		
	Pre-reform	Transition	Post-reform		Pre-reform	Transition	Post-reform
	1996	2001	2004	2008	1995	2002	2006-10
<b>First birth, first job sequence</b>			**	**		**	**
Birth preceded first stable employment	27.3	26.2	30.7	30.9	21.4	31.1	27.5
First stable employment preceded first birth	36.0	36.1	32.4	29.1	39.2	32.7	33.0
Had stable employment but no birth	26.8	26.0	25.6	26.2	30.8	30.4	32.2
No stable employment, no birth	10.0	11.7	11.4	13.8	8.6	5.8	7.2
All sequences with a first birth	63.3	62.3	63.1	60.0	60.6	63.8	60.6
sample size	3,061	2,372	3,152	2,956	1,808	1,321	2,378

Note: \*\* indicates statistically significant difference in outcome distribution from that of the pre-reform year,  $p < .01$ .

Table 2: First birth and first job sequence outcome in pre-reform and post-reform cohorts, by race/ethnicity/nativity and educational attainment, women aged 26-30

	1995					2006-10				
	Total	Birth preceded first stable employment	First stable employment preceded first birth	Had stable employment but no birth	No stable employment, no birth	Total	Birth preceded first stable employment	First stable employment preceded first birth	Had stable employment but no birth	No stable employment, no birth
<b>A. NSFG</b>										
<b>Race/ethnicity/nativity</b>										
U.S.-born White	66.8	15.9	41.2	33.3	9.6	57.9	17.9	36.7	38.9	6.5
U.S.-born Black	13.5	34.1	33.0	23.7	9.2	13.4	41.0	34.7	17.3	7.0
U.S.-born Hispanic	6.7	31.0	41.8	23.7	3.5	8.4	33.1	32.0	27.6	7.3
Foreign-born Mexican	3.7	47.4	36.2	14.6	1.7	6.0	63.5	26.5	6.6	3.4
Other	9.4	25.9	32.6	34.3	7.2	14.2	35.6	19.7	32.9	11.8
Chi-squared p-value for race/ethnicity distribution in 1995 vs. 2006-10	<.001									
Chi-squared p-value for difference in distribution of outcome by race/ethnicity		<.001				<.001				
<b>Educational attainment</b>										
Less than high school	10.7	62.0	31.5	3.8	2.8	15.2	64.4	26.4	6.3	2.8
High school	37.0	25.0	49.4	23.8	1.8	23.2	32.6	42.6	17.2	7.5
Some college	25.1	12.3	47.6	34.5	5.6	29.0	24.4	39.4	32.3	3.8
Bachelor's degree or more	27.3	9.2	20.6	47.3	22.8	32.6	9.5	23.4	55.0	12.0
Chi-squared p-value for education distribution in 1995 vs. 2006-10	<.001									
Chi-squared p-value for difference in distribution of outcome by education		<.001				<.001				
Sample size	1,808					2,377				

Table 2 (Continued)

**B. SIPP**

	<b>1996</b>					<b>2008</b>				
<b>Race/ethnicity/nativity</b>										
U.S.-born White	65.3	22.9	38.8	28.3	10.1	56.9	27.6	33.3	26.7	12.4
U.S.-born Black	12.6	36.3	35.7	19.9	8.2	11.3	36.7	27.1	27.7	8.5
U.S.-born Hispanic	5.8	33.8	43.4	16.8	5.9	10.0	44.9	31.3	18.1	5.8
Foreign-born Mexican	5.2	61.0	27.0	7.4	4.5	8.1	54.0	27.1	11.3	7.6
Other	11.0	30.5	30.7	29.8	9.1	13.7	30.6	23.4	26.4	19.6
Chi-squared p-value for race/ethnicity distribution in 1996 vs. 2008	<.001									
Chi-squared p-value for difference in distribution of outcome by race/ethnicity	<.001					<.001				
<b>Educational attainment</b>										
Less than high school	13.0	62.7	26.3	5.6	5.4	12.5	61.7	25.1	8.4	12.4
High school	30.5	30.1	45.5	18.3	6.0	22.7	37.6	35.1	19.5	8.5
Some college	33.8	22.1	44.1	26.9	7.0	38.2	30.8	35.0	23.9	5.8
Bachelor's degree or more	22.7	14.4	21.8	44.9	18.9	26.7	18.4	22.7	37.8	7.6
Chi-squared p-value for education distribution in 1996 vs. 2008	<.001									
Chi-squared p-value for difference in distribution of outcome by education	<.001					<.001				
Sample size	2,923					2,677				

Sources: National Survey of Family Growth (NSFG), 1995 and 2006-10 cycles; Survey of Income and Program Participation (SIPP), 1996 and 2008 panels

Table 3: Change between pre-reform and post-reform cohorts in the proportion working fulltime or part-time during her pregnancy of her first birth, women 26-30

Work status during pregnancy	All women with a first birth		Women whose first birth preceded their first job of 6+ months		Women whose first job of 6+ months preceded their first birth	
	1996	2008	1996	2008	1996	2008
Didn't work	0.404	0.380	0.608	0.530	0.250	0.221
Worked fulltime	0.503	0.511	0.289	0.366	0.666	0.665
Worked part-time	0.092	0.109	0.103	0.104	0.084	0.114
Sample size	1,995	1,841	888	968	1,107	873
P-value for chi-squared test of 1996 vs. 2008 distribution	0.127		0.001		0.045	

Note: Job during pregnancy can be of any duration.

Source: Survey of Income and Program Participation, 1996 and 2008 panels

Table A1 Odds ratios from NSFG decomposition regressions, women ages 26-30

	1995			2006-10		
	Life course sequencing (vs. First substantial employment before first birth)			Life course sequencing (vs. First substantial employment before first birth)		
	First birth before first substantial employment	First substantial employment, no first birth	No first substantial employment or first birth	First birth before first substantial employment	First substantial employment, no first birth	No first substantial employment or first birth
Age	0.98	1.10 *	1.27 *	0.95	1.36 *	1.22 *
Race/ethnicity (vs. U.S.-born non-Hispanic White)						
U.S.-born Black	2.41 *	1.18	2.21 *	2.27 *	0.55 *	1.30
U.S.-born Hispanic	1.38	0.98	0.61	1.71 *	1.15	1.76
Foreign-born Mexican	1.99 *	0.90	0.51	2.94 *	0.48	1.06
Other	2.08 *	1.23	0.83	3.63 *	1.52 *	3.36 *
Education (vs. Bachelor's degree or more)						
Less than high school	3.60 *	0.05 *	0.08 *	4.95 *	0.10 *	0.19 *
High school	1.03	0.21 *	0.03 *	1.73 *	0.16 *	0.32 *
Some college	0.52 *	0.31 *	0.10 *	1.44 *	0.34 *	0.18 *

Notes: \* p<.05

Source: National Survey of Family Growth (NSFG), 1995 and 2006-10 cycles

Table A2 Odds ratios from SIPP decomposition regressions, women ages 26-30

	1996			2008		
	Life course sequencing (vs. First substantial employment before first birth)			Life course sequencing (vs. First substantial employment before first birth)		
	First birth before first substantial employment	First substantial employment, no first birth	No first substantial employment or first birth	First birth before first substantial employment	First substantial employment, no first birth	No first substantial employment or first birth
Age	1.06	1.23 *	1.25 *	1.02	1.21 *	1.34 *
Race/ethnicity (vs. U.S.-born non-Hispanic White)						
U.S.-born Black	1.67 *	0.85	1.01	1.57 *	1.48 *	1.04
U.S.-born Hispanic	1.16	0.63 *	0.62	1.51 *	0.86	0.61
Foreign-born Mexican	2.09 *	0.63	0.81	1.56 *	0.82	1.23
Other	1.58 *	1.51 *	1.30	1.50 *	1.57 *	2.60 *
Education (vs. Bachelor's degree or more)						
Less than high school	2.99 *	0.11 *	0.23 *	1.57 *	0.20 *	0.19 *
High school	0.95	0.19 *	0.15 *	1.21	0.32 *	0.23 *
Some college	0.73 *	0.28 *	0.17 *	1.04	0.39 *	0.31 *

Notes: \* p<.05

Source: Survey of Income and Program Participation (SIPP), 1996 and 2008 panels