Long-Term Trends in Short-Term Processes: Couples' Adjustments in Labor Market Activities Following Parenthood and Job Loss, 1976-2012[*]

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Abstract. Women's roles outside the home have changed dramatically over the past four decades, with wives' financial contributions now a common—arguably expected—component of the marriage bargain. Descriptive studies have mapped trends in women's work, earnings, and family formation over time, but by and large the literature to date has not assessed long-term trends in the ways in which couples adjust their work and family responsibilities within partnerships. This paper capitalizes on newly available, successive, short-run panels from 1976-2012 to examine joint changes in men's and women's work and earnings following the transition to parenthood and job loss, shedding light on the dynamic and reciprocal relationship between labor market experiences and family transitions. Couple-level changes around these events provide windows into understanding how men's and women's economic roles in the family have adapted in concert with transformations in the meaning of marriage, gender ideologies, labor market opportunities, and work-family constraints.

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Women's roles outside the home have changed dramatically over the past four decades. Women's representation in typically male-dominated fields has risen, and they have surpassed men in college graduation rates (Goldin 2004; Goldin, Katz, and Kuziemko 2006). Married women and mothers in particular have increased their participation in and attachment to the labor force, with a majority of new mothers now in paid employment (Cohany and Sok 2007; Percheski 2008). Marriage opportunities have also expanded for women with good economic prospects: Whereas a college degree had been associated with lower marriage chances among U.S. women for much of the twentieth century (Goldin 2004; Goldstein and Kenney 2001), it is now associated with increased chances (Oppenheimer 1994; Thornton, Axinn, and Teachman 1995; Sweeney, 2002; Xie, Raymo, Goyette, and Thornton 2003). The rising economic independence of women combined with the growing positive relationship between women's economic prospects and marriage has led to a shift in the conceptualization of marriage from one emphasizing the advantages of sex-differentiated specialization in gender roles (Parsons 1949; Becker 1973, 1974) to one emphasizing collaboration (e.g., Oppenheimer 1988, 1994). Wives' financial contributions are now a common—and arguably expected—component of the marriage bargain (Goldstein and Kenney 2001; Oppenheimer 1994; Sweeney 2002).

Women's roles within the family have nonetheless been slower to change than their roles outside it (England 2010; Hochschild and Machung 2003). Most women still have primary responsibility at home, and their partners maintain the status of primary earner. This can be seen in the greater sensitivity of women's employment and earnings to household demands and spousal employment (Cha 2010; McKinnish 2008; Raley, Bianchi, and Wang 2012), as well as in the greater significance of men's earnings to marriage entry (Smock and Manning 1997; Sweeney 2002). Public opinion further points to sex-differentiated expectations of family roles.

For example, in a recent Pew Research study, only 34% of U.S. adults agreed that children were just as well off when mothers work, compared to 76% when fathers work (Wang, Parker, and Taylor 2013). Indeed, public discussion points to concern over the rise of "alpha wives" and implications for social and family change (e.g., New York Times 2010).

Descriptive studies have mapped trends in women's work, earnings, and family formation over time, but broad-brush historical investigations into the links across these domains have been limited. A small number of studies has focused on change in the relationship between women's economic prospects and family formation (e.g., Goldin 2004; Goldstein and Kenney 2001; Sweeney 2002), documenting a positive link between economic prospects and marriage for the most recent cohorts. Others have examined trends in the relationship between motherhood and employment (e.g., Cotter, England, and Hermsen 2007; Percheski 2008), finding increased labor force attachment of nearly all subgroups of mothers, including professionals, married mothers, and those with high-earning spouses. This literature focuses largely on women, despite the dyadic nature of the processes involved in negotiating family and work attachments (e.g., Killewald and Gough 2013). Two exceptions, relying on couple-level data, provide further evidence of shifting economic roles: Using household data from the Decennial Censuses and American Community Survey, a Pew Research study (Fry and Cohn 2010) described increases in the share of wives earning more than their husbands. And relying on household data from the Current Population Survey, Schwartz (2010) found growing similarity in the association between spouses' earnings from the late 1960s to 2005.

Largely missing from the literature to date is work describing long-term trends in the ways in which couples adjust their work and family responsibilities within partnerships. Studies examining trends in the economic roles of men and women in families have focused on entry

into marriage and successive snapshots of earnings, work, and family status, which constrains efforts to parse out trends in how couples negotiate home and market work. For example, Schwartz (2010, p. 1551) notes that in relying on cross-sectional data to document trends in the association between spouses' earnings, she was not able to differentiate the contributions of growing similarity in the characteristics of spouses and change in the division of labor within marriage. Thus questions remain: How do couples balance their respective labor force activities following entry into parenthood, and how have adjustments to parenthood changed as women's economic independence has grown? Likewise, how do couples' work and earnings respond when one partner loses a job, and how have adjustments to job loss changed over time as women's earnings have becoming an increasingly important component of family budgets? Rich description of this sort requires data that have generally not been available to this point; that is, couple-level data permitting observation of both partners' labor force activities before and after the birth of their first child or a job loss across a relatively broad time horizon.

Our Approach

Our project capitalizes on four decades of newly available, successive, short-run panels to assess joint changes in men's and women's work and earnings *within partnerships*. We center our observations around two events—first birth and job loss—shedding light on the dynamic and reciprocal relationship between labor market experiences and family transitions. Couple-level changes around these events provide windows into understanding how men's and women's economic roles in the family have adapted in concert with transformations in the meaning of marriage, gender ideologies, labor market opportunities, and work-family constraints. We focus on heterosexual couples, as these processes may play out differently for same- and different-sex

couples, and we do not anticipate large enough samples of same-sex couples to explore patterns separately.

We leverage changes in labor market behavior surrounding family events to study the evolution of gendered family roles. We further investigate the extent to which changes in men's and women's economic roles in the family have been conditioned by education and race and ethnicity. McLanahan (2004), for example, argued that trends associated with women's economic gains have advantaged college-educated women and allowed them to better negotiate egalitarian family roles, relative to less educated women. Do patterns of change in gendered family roles depend on women's education or broader conceptualizations of social class?

Our project relies on a new, enhanced version of the Current Population Survey (CPS) that includes harmonized measures from all basic monthly and supplemental surveys and identifiers linking households longitudinally across the full 16 months of their participation in the survey for cohorts entering the CPS since 1976. Pooling successive panels from 1976 through 2012 will allow us to map short-term changes in employment and earnings around key family and household transitions across four decades, that is, to look at long-term trends in the economic correlates of family transitions in a more comprehensive way than previously possible. Detailed, prospectively measured indicators of economic activity from all household members will make it possible to examine—at the couple level—the relative strength of association between family transitions and men's and women's work and earnings patterns and changes in these associations over time. Finally, the large samples of the CPS will allow us to examine differential change over time for select subgroups of the population.

Generating CPS Panels and Linking Couples

The CPS is one of the most commonly used data sources (indeed one of the only available) to assess period change in U.S. labor market experiences. Although the CPS is a panel study that follows households over the course of 16 months, linking individuals longitudinally is difficult in practice due to the sample design and coding practices. Notably, if the occupants of the housing unit move, the new occupants are interviewed in their place. Additional difficulties are posed by the assignment of non-unique household and person identifiers in some years and changes over time in the methods for assigning household identifiers (Drew, Flood, and Warren 2013). The IPUMS-CPS project at the Minnesota Population Center (MPC) is producing new, unique household and person identifiers for the years 1976 through 2012, using demographic information to verify the links. To date, CPS panel data—and what can be learned from it—have been largely untapped.

No prior work has used these data to examine change in family roles. We will generate couple-level panels from the CPS, using the newly developed identifiers to link households across the 16 months of their participation in the survey. We will include all men and women in heterosexual marital or cohabiting unions and examine work and earnings surrounding a first birth or job loss. For all years 1976 through 2012 (or very nearly all; linking remains problematic in a handful of years), we will pool observations from the 12 incoming cohorts, for a total of up to 444 panels (37 years x 12 cohorts per year). Pooling incoming cohorts in this way will generate sufficient numbers of transitions to assess change over time for the population as a whole and subgroups of interest (e.g., educational groups).

To illustrate our approach, we present below results of linking one panel first observed in September 2009. This exercise shows how we generate the CPS panels, link couples, and

identify events. Critically, it also provides the number of first birth and job loss events for each panel. We generated a panel for an earlier year, as well; results (for the panel beginning in September 1995, not shown here) were very similar with respect to attrition, numbers of couples, and events observed. As just noted, we expect to pool all 12 incoming cohorts for the years 1976-2012, increasing the total number of events observed (as detailed below) by about 400 times.

Linking Respondents Across Eight Waves

CPS respondents are surveyed 8 times in a 16-month span. Beginning in a given month (month in sample or MIS1), they are in the sample for the following three months (MIS2-4). They are then not in the sample for the next 8 months, and are back in the sample for the following 4 months after that (MIS5-8). In any given month, approximately 16,500 individuals are in MIS1. Using public data from IPUMS-CPS, we began with respondents whose first month in the CPS was September 2009 (N=16,437). These respondents were in the sample from September to December 2009, and again from September to December 2010; household records were linked across months using newly developed household- and person-level identifiers. Table 1 shows the total number of respondents linked between each month in the sample, as well as the number who were plausibly linked, that is, who did not have mismatches on sex, age, or race. The result is 10,561 plausible links in December 2010, or 64% of the 16,437 who were first surveyed in September 2009. These 10,561 are observed in each of the eight survey waves over 16 months.

Table 1. Linking Across Months				
Sep 2009-Dec 2010	All links	% retained	Plausible links	% retained
People in MIS1 in 9/2009…	16437			
…whose records can be linked to MIS2 in 10/2009	15565	94.7	15338	93.3
…and MIS3 in 11/2009	15025	91.4	14754	89.8
…and MIS4 in 12/2009	14515	88.3	14241	86.6
…and MIS5 in 9/2010	11940	72.6	11498	70.0
…and MIS6 in 10/2010	11563	70.3	11119	67.6
…and MIS7 in 11/2010	11248	68.4	10801	65.7
…and MIS8 in 12/2010	11014	67.0	10561	64.3
Note: MIS=month in sample				

Identifying Partners and Linking Couples

We next identified heterosexual married or cohabiting individuals. Among the 10,561 men and women who could be linked across all waves of the survey, 5,152 were partnered (5,008 married and 286 cohabiting) in both MIS1 (September 2009) and MIS8 (December 2010). We were able to link 96% of these individuals to each other; in a small percentage of cases people were married but their spouse was not listed in the CPS household roster. Table 2 shows these results. The panel beginning in September 2009 thus yields 8 observations across 16 months for 2,471 couples.

Table 2. Linking Couples			
	Male	Female	Total
Married or cohabiting in MIS1 & MIS8	2541	2611	5152
Linked married partners	2338	2338	4676
Linked cohabiting partners	133	133	266
Total linked couples	2471	2471	4942

Couples' First Births

The number of couples who experienced first births between September 2009 and December 2010 are shown in Table 3. Couples having their first child are identified as those who go from having zero children in the household of any age in one month to having at least one child in the

household under the age of one in the next month. First birth totals are given for the entire panel and separately for the time between MIS4 and MIS5 (December 2009 and September 2010).

Table 3. Identifying Couples' First Births	
	Number of Couples
First child born between MIS1 & MIS8	35
First child born between MIS4 & MIS5	18
N of couples=2471	

We will test the sensitivity of results to decisions about when we record the birth of a child relative to when we observe partners' work and earnings patterns surrounding the birth. We will measure work and earnings patterns at least two months prior to and four months following the birth.

Job Losses

As a first pass, we used a simple definition of job loss, counting any transition from employed in one month ("at work," "has job, not at work last week," and "Armed Forces") to unemployed the next month. Table 4 shows the number of men and women who experienced any job loss, as well as the total number of couples for whom at least one partner experienced at least one job loss (in a small number of couples, both partners lost jobs). Job loss totals are given for the entire panel and separately for the time between MIS4 and MIS5 (December 2009 and September 2010). For reference, of 2,471 couples, about 1,800 males and 1,550 females were employed in any given month.

Table 4. Identifying Job Losses			
	Male	Female	Either Partner
Any job loss between MIS1 & MIS8	153	101	244
Job loss between MIS4 & MIS5	41	32	71
N of couples=2471			

There are a number of more complex work transitions that could be computed, and we will experiment with alternative measures of job loss, including job loss of varying duration (e.g., unemployment spells of less than versus more than 3 months). As with first birth, we will also test the sensitivity of results to decisions about when we record job loss relative to when we observe partners' work and earnings patterns surrounding job loss (e.g., shifting the window of observation around job loss from one to three months before job loss and from two to six months after).

Analysis Plan

Based on preliminary data work (on the September 2009 panel described in detail above, as well as the September 1995 panel referenced earlier), we expect approximately 35 couples to experience first births and 244 couples to experience job losses in each 16-month panel (see Tables 3 and 4). Because of the importance of observing couples' work and earning patterns at least a few months prior to and a few months following these transitions, our main analyses will be limited to transitions occurring within a particular window of the 16-month panel. If we included only transitions that occurred in the 8-month window between MIS4 and MIS5, for example, this would yield 18 first births and 71 job losses per 16-month panel. As noted above, by the time of the PAA, we propose to pool panels initiated in every calendar month of every year from 1976-2012, increasing the total number of events observed by upwards of 400 times. This would yield (conservatively) approximately 7,200 first births (18 x 400) and 28,400 job losses (71 x 400). These sample sizes will allow us to look at more detailed measures of job loss as well as subgroup variation.

We will use monthly measures of men's and women's work status, work hours, and earnings to generate individual- and couple-level indicators of work arrangements and earnings

surrounding job loss and first birth. *Couple-level work arrangements* will include: 1) both are employed full-time; 2) male partner is employed full-time and female partner is employed part-time; 3) male partner is employed full-time and female partner is not employed; 4) female partner is employed full-time and male partner is employed less than full-time; 5) both partners are employed less than full-time (or one is not not-employed); and 6) neither partner is employed. *Couple-level earnings* will include total combined earnings (female plus male partner earnings) and relative earnings (the ratio of female to male partner earnings). Individual- and couple-level work and earnings patterns will be measured before and after transitions of interest (first birth or job loss).

We will describe trends in couples' work and earnings patterns over time. Of central interest, however, is examining trends in how couples adjust to key family events. Focusing on *changes* in couples' work and earnings patterns surrounding first birth or job loss allow us to address trends in how men and women negotiate home and market work *within partnerships*. That is, it will allow us to parse out the contributions of growing similarity in the characteristics of spouses versus change in the division of labor within partnerships—a significant contribution over prior literature in this area. Broadly, we will address: How do couples balance their respective labor force activities following entry into parenthood, and how have adjustments to parenthood changed as women's economic independence has grown? Likewise, how do couples' work and earnings respond when one partner loses a job, and how have adjustments to job loss changed over time as women's earnings have becoming an increasingly important component of family budgets?

Our main analysis will focus on couples who experience first birth or job loss, and our outcomes will be changes surrounding these events in couple work arrangements and earnings.

Our key predictor of interest is period (modeled as five-year dummies from 1976-2012). Multivariate analyses will account for standard sociodemographic characteristics of men and women, including age, race and ethnicity, and education; they will also include couple-level indicators of differences in characteristics, for example, differences in partner age, race and ethnicity, and education. Analyses will further assess subgroup differences, with particular attention to how trends in gendered family roles have evolved differently for men and women of differing levels of education.

Our data provide important strengths but also limitations. The panel nature of the CPS allows for an assessment of change within partnerships, but panels are a short 16 months. Because we can observe only short-term change, we focus on windows (around first birth and job loss) in which we expect adjustments over a short period of time (e.g., others have documented significant change in the allocation of household labor following entry to parenthood [Baxter, Hewitt, and Haynes, 2008; Sanchez and Thomson, 1997]). The household-based design of the CPS is a further limitation, and moves away from the household will result in loss from our sample. This is a particular concern to the extent that transitions of interest (first birth, job loss) are associated with family moves or union dissolution in the short term. To the extent possible with our data, we will investigate the sources of attrition from our sample. Finally, unmarried partners were not identified in the CPS until 1995, thus restricting our analysis of cohabiting couples to the later periods.

As noted at the outset, the conceptual model linking men's and women's economic roles in the family has shifted from one emphasizing the advantages of sex-differentiated specialization in gender roles to one emphasizing collaboration. Fundamentally, this project aims to assess the extent to which men's and women's economic roles in the family have become

more similar over time, as would be suggested by a more collaborative model of marriage (e.g., Oppenheimer 1994). We are further interested in whether marriage has become more egalitarian among college graduates, relative to less educated couples, as suggested by McLanahan's diverging destinies (2004). Notwithstanding limitations, newly available data from the CPS provide significant new tools for assessing these questions.

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