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HOW DOES UNEMPLOYMENT AFFECT FAMILY ARRANGEMENTS FOR CHILDREN?

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LOW-INCOME WORKING FAMILIES PAPER 29
AUGUST 2014

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This report is part of the Urban Institute's Low-Income Working Families project, a multiyear effort that focuses on the private- and public-sector contexts for families' success or failure. Both contexts offer opportunities for better helping families meet their needs. The Low-Income Working Families Project is currently supported by the Annie E. Casey Foundation.

The nonpartisan Urban Institute publishes studies, reports, and books on timely topics worthy of public consideration. The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders.

We would like to thank Tom Callan for excellent research assistance and participants of Urban's LIWF seminar series for helpful comments and suggestions.

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Introduction

The Great Recession focused attention on the costs of unemployment. Much of the focus has been on such direct economic consequences as the increase in poverty rates (Danziger et al. 2012) or loss in home equity and wealth (McKernan et al. 2014). But some research suggests that unemployment can also have indirect costs on families and children. One such cost is instability in living arrangements of families, and a large body of evidence suggests that family instability can adversely affect the well-being of children (e.g., Brown 2004; Kamp Dush 2009; Sandstrom and Huerta 2013; Waldfogel et al. 2010; Wu et al. 2010).

Two strands of literature propose competing hypotheses about the relationship between unemployment and changes in living arrangements. Unemployment and the subsequent loss of income may lead to depression or other economic and psychological stresses that put a strain on family relationships and lead to the dissolution of the family. In contrast, the loss of income could motivate families to move in with others to take advantage of economies of scale.

In this paper, we address the question of how parental unemployment affects the living arrangements of children by using data from the Survey of Income and Program Participation (SIPP). We distinguish between five family arrangement types from the perspective of a child: married parents, unmarried biological parents who cohabit (two-bio cohab), mothers cohabiting with a partner who is not the biological parent of the child (cohab mother), single mothers, and father or no parent.

Focusing on families with children ages zero to nine at the beginning of the survey, we find that children who experience an unemployment event of a parent are also more likely to witness a change in family arrangements. When looking at the types of changes in family arrangements, we find that for children initially living with two parents, an unemployment event is associated with a higher probability of a transition to any other type of family. For children initially living with their cohabitating mother, an unemployment event is correlated with a higher probability of subsequently living with a single mother, and for children initially living with their single mother, her job loss is correlated with a higher probability of subsequently living without the mother. This last effect is especially concentrated among single mothers with no high school degree.

The remainder of the paper is structured as follows. The following section reviews the broader literature on this topic, the section “Sample and Family Arrangements” describes the sample for our analysis and defines the various family arrangements, and the section “Empirical Analysis” presents the findings of our analysis, which are further discussed in the conclusion.

Background

Our paper is related to the literature that links family structure and changes in family arrangements to children’s well-being. Early studies in that area focus on marital dissolution and highlight the negative consequences for children when parents divorce (Seltzer 1994; Amato 2000). As nonmarital family arrangements have become more widespread, researchers have looked more carefully at different forms of cohabitation. Brown (2004) studies the role of different family structures for children’s well-being. She

finds that children in nonmarital family arrangements generally have lower levels of well-being, but the type of nonmarital family arrangement (e.g., two-biological-parent cohabiting families or single mothers) does not significantly influence children's well-being. Artis (2007) points out that lower economic resources and lower well-being of mothers among nonmarried family arrangements explains most of this difference.

Children's well-being may be affected not only by the type of family arrangement but also by changes in arrangements, which are one source of instability for children. Waldfogel and colleagues (2010) examine the role of family instability compared with the type of family arrangement for children's outcomes. Their findings suggest that family instability matters for such types of outcomes as cognitive abilities and health. Wu and colleagues (2010) find that changes to family arrangements have negative consequences for children's educational attainment. Other types of instability that have been found to affect children's well-being include economic instability, residential instability, or instability in the people children interact with (Sandstrom and Huerta 2013).

Other studies have looked directly at the consequences of unemployment on children's well-being. Kalil and Ziol-Guest (2005) showed that adolescents' self-esteem is negatively affected if their single mother loses her job. Similarly, Stevens and Schaller (2011) find that parental job loss significantly increases the risk that their children have to repeat a grade.

One possible channel linking parental job loss to the well-being of children is changes in family structure. Loss of income can create family stress, which in turn can destabilize family relationships and family arrangements. However, difficult economic circumstances can also increase the need to pool resources, for instance by "doubling-up" (e.g., by moving in with a partner, relative, or nonrelated person) or getting married. Only a few studies have addressed these potential links, and most of those studies tend to focus on adults or married parents. White and Rogers (2000) review existing literature and conclude that for married couples, the event of a job loss significantly increases the risk of divorce. More recently, Wiemers (2011) finds that adults are more likely to move in with other people after losing their job. Only London and Fairlie (2008) focus on family arrangements for children. They find a positive association between the unemployment rate and the probability that children live with a single parent and not with their married parents and a positive association between the unemployment rate and transitions from single motherhood toward cohabitation. However, it is unclear from their analysis whether the event of a job loss triggers these changes, or whether economy-wide circumstances contribute to them.

Our study expands on this research by looking at unemployment events within a family and analyzing the effect of unemployment on changes in family arrangements for several initial types of family arrangements. We compare children who experience a parent's unemployment event with children who do not experience such an event to measure the effect of job loss on family arrangements. Similar to London and Fairlie, our results suggest that the event of a job loss increases the risk of divorce for married parents. In our analysis, however, single mothers who lose their jobs are not more likely to move in with a partner. Similar to the literature on unemployment and mortality (Ruhm 2000; Sullivan and von Wachter 2009), this discrepancy between our and London and Fairlie's results suggests that though aggregate changes to the unemployment rate may have some positive effects on family arrangements, families immediately affected by an unemployment event suffer from a higher risk of family dissolution.

Sample and Family Arrangements

We use the SIPP for our study. The SIPP follows respondents for 2.5 to 4 years, allowing us to study the short- to medium-term consequences of a job loss on family arrangements. We focus on families with children who are between zero and nine years old at the first interview. We create five categories of family arrangements based on the relationship between the child and other household members:

- Married parents: the child lives with married parents (including stepparents)
- Two-bio cohab: the child lives with two unmarried biological parents
- Cohab mother: the child lives with the mother and her partner
- Single mother: the child lives with the mother, who does not cohabit with a partner
- Father or no parent: the child lives with either the father or no parent¹

We identify the family arrangement of a child for each month in the survey. Because of small sample sizes, we eliminate from our analysis children who are initially living with a father only or with no parent. However, some of the children who are initially living in our included family types transition later into a father-only or no-parent household; thus, for completeness, we include transitions into those types of households in our analysis.

SIPP Background Information

The SIPP is a nationally representative survey of the civilian, noninstitutionalized population in the United States 15 years of age and older. Respondents are interviewed once every four months. Each interview period is called a wave. When interviewed, respondents are asked to provide information about the preceding four months. Every few years, a new SIPP is started (called a panel) and they are named using their respective starting year. SIPP panels have different numbers of waves and cover between three and four years. We use the following SIPP panels:

- SIPP 1996 (12 waves)
- SIPP 2001 (8 waves)
- SIPP 2004 (12 waves)
- SIPP 2008 (10 waves)

The SIPP 2008 has 14 waves, but only the first 10 waves were available at the time we conducted our study.

A change in family arrangements in a month occurs if the child lives in a different family arrangement in the next month. We also classify changes into two broader groups, indicating whether they lead to a union—for example, a single mother cohabits or marries or a cohabiting mother marries—or whether they imply a dissolution. Dissolutions occur when a child stops living with one or more parents—for example, when married parents divorce or cohabiting parents stop living together.

For analytical convenience, we also define cases where a child transitions from living with the mother to living with the father or with no parent as a dissolution.² Clearly, this

¹ The number of children living with other relatives or in foster care is very small, so we combined these arrangements with the father-only category.

family arrangement has different subgroups: nonparents could include other relatives such as grandparents or unrelated adults, and the caretaking adults could have or lack other partners. Though it would be desirable to distinguish more finely between such arrangements, the small number of children in the SIPP who live without their mother requires us to define this family arrangement as comprising all cases where the child does not live with the mother. Still, we think that any change in family arrangements where the child is separated from the mother, who is in most cases the primary care person, can be considered a dissolution.

After identifying changes in family arrangements, we then distinguish between two groups of children: those affected by an unemployment event of one of their parents and those not affected by an unemployment event. A parent can be the biological or nonbiological mother or father of a child. The SIPP defines nonbiological parents as either adults married to a biological parent or adults that have adopted a child. Consequently, the partner of an unmarried mother is not classified as a parent (if he or she has not adopted the child). We therefore ignore unemployment events of such partners for our analysis.

An unemployment event occurs during a month if one of the parents the child initially lives with works during that month but does not work and reports being on layoff or looking for a job the following month. This definition excludes cases where a parent drops out of the labor force for non-work related reasons such as going to school, taking care of a family member, or getting married. It includes cases where a parent moves out of the household during the first month of unemployment, but it excludes cases where a new parent moves in and then reports a job loss.

After defining a job loss, we select the 12 months around the month of job loss (for a total of 13 months), 3 months before the job loss, and 9 months thereafter. The initial family arrangement is the one at the first month of this time window. The group with no unemployment event consists of children with at least one employed parent who does not become unemployed during the time the SIPP is conducted.³ For each child in the comparison group, we also select a 13-month period to compare changes in family arrangements between the two groups during the same time span.⁴ We have 27,338 children in our sample, of which 18,133 experience no unemployment event of one of their parent and 9,205 do.

² This paper focuses on the union or dissolution of the child's parents, and we ignore changes in household structure where the parent (or parents) move in with other individuals who are not a spouse or partner. Thus, the only doubling-up we focus on in this analysis is either because of marriage or cohabitation.

³ We exclude children in families where no parent is employed and children in families where a parent stops working but does not look for a job. This definition of the comparison group comes closest to the underlying hypothetical experiment that randomly assigns an unemployment event to a parent in households with children.

⁴ Specifically, we randomly select a 13-month time period such that the distribution of observed months across waves and panels for children with no unemployment event is identical to the distribution for children who experience an unemployment event.

Censoring and Incomplete Observations in the SIPP

Right-censoring occurs if a SIPP panel ends before the last of the 13 months. In such cases, we do not observe the family arrangement at the end of the 13-month period.

Left-censoring occurs if a SIPP panel starts after the first of the 13 months we select. In such cases, we do not observe the initial family arrangement.

Incomplete observations occur if individuals selected for the SIPP refuse to participate in the interview, cannot be found, or move to a location without being followed (which may happen to children less than 15 years old).

For our analysis, we exclude (1) children with right-censored or left-censored periods and (2) instances where the final month of the selected 13-month period is not observed because the person was not interviewed.

Empirical Analysis

In this section, we first describe characteristics of children in our sample and transitions from one family arrangement to another. We then discuss what we can infer from these patterns about how unemployment effects influence changes in family arrangements.

Descriptive Results

Table 1 displays sample characteristics using the first observed month. About one-third of all children experience an unemployment event during the three to four years household respondents were interviewed. Though the number appears to be large, it is consistent with an unemployment risk of about 1 to 1.5 percent per month (as observed in the SIPP). Children in both groups have about the same average age and gender ratio, but children in families with an unemployment event are more likely to be Hispanic or black. They are also less likely to initially reside in a household with married parents and more likely to live in households with other family arrangements. Earnings and income in these households before job loss are slightly lower than in those with no unemployment. Parents of these children tend to be more likely to have just a high school degree and less likely to have attended college.

Table 2 shows how family arrangements change between the initial and final month for the two groups of children. Rows indicate initial family arrangements and columns indicate final family arrangements. The first row of numbers for each initial family arrangement displays the transition matrix for children in households with no unemployment event and the second set of numbers displays the transition matrix for children in households that do experience unemployment.

Table I. Sample Characteristics

	No unemployment Event	Unemployment Event
Characteristics of children		
Percentage of all children	67.5%	32.5%
Age	6.3	6.1
Male	51.3%	50.7%
White, not Hispanic	75.1%	64.1%
Hispanic	8.7%	13.2%
Black	9.9%	16.3%
Other race or ethnicity	6.3%	6.4%
Married parents	85.7%	73.3%
Two-bio cohab	2.0%	5.2%
Cohab mother	0.6%	1.0%
Single mother	11.7%	20.5%
Characteristics of households		
Total earnings	\$6832	\$4735
Total income	\$7111	\$5061
Number of people	4.5	4.7
Characteristics of adults		
Age	35.3	33.3
High school degree	23.9%	30.9%
Some college	68.0%	52.1%
White, not Hispanic	76.6%	66.1%
Hispanic	8.3%	12.4%
Black	9.3%	15.7%
Other race or ethnicity	5.9%	5.8%
Number of observations	18,133	9,205

Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Note: The first observed month of the analysis is used for the summary statistics. Children are individuals who are younger than 10 years old at the beginning of the first wave of a SIPP panel. Adults are corresponding adults (see text for details). All calculations use weights (person weights for individuals and household weights for households). All monetary values are expressed in January 2010 values.

The first thing to note is that married parents and single mothers are the most stable groups: 97 (unemployment group) to 99 (no-unemployment group) percent of children who initially live with married parents remain in the same arrangement 13 months later, and 91 (unemployment group) to 94 (no-unemployment group) percent of children who initially live with single mothers remain in the same arrangement 13 months later. Stability in family arrangements is less prevalent, although still relatively high, for children living with their nonmarried parents or their cohabiting mother. The second thing to note is that stability is lower for children whose parent(s) experienced an unemployment event for all initial family arrangement types (e.g., 97 versus 99 percent for married; 84 versus 85 percent for two-bio cohab; 65 versus 73 percent for cohab mother; and 91 versus 94 percent for single-mother households).

Table 2. Living Arrangement Transition Matrix for Children Experiencing Unemployment Event and No Unemployment Event

		Sample size	Married parents (%)	Two-bio cohab (%)	Cohab mother (%)	Single mother (%)	Father/no parent (%)
Married parents	No unemployment	15,534	98.8	0.03	0.01	0.8	0.3
	Unemployment	6,600	96.9	0.1	0.0	2.2	0.8
Two-bio cohab	No unemployment	358	10.4	85.1	0.0	4.6	0.0
	Unemployment	473	8.5	84.0	0.7	5.8	1.0
Cohab mother	No unemployment	123	15.2	1.5	73.1	10.2	0.0
	Unemployment	118	15.1	0.0	65.0	19.2	0.0
Single mother	No unemployment	2,118	4.2	0.4	1.3	94.0	0.1
	Unemployment	1,954	4.1	0.9	2.3	91.4	1.3

Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Notes: All calculations use person weights. Row percentages show the percentage of children in the respective column and row as a fraction of all children who are in the row group. Number of cases refers to the unweighted number of children in the respective row. We eliminated children who were initially living with a father or no parent, because there are so few cases. However, for completeness, we do show transitions into that category for children whose were initially living with married parents, two-biological cohabiting parents, a cohabiting mother, or a single mother.

However, for a given initial family arrangement, the pattern of changes is generally similar for those with an unemployment event compared with those with no unemployment. For example, children initially living with their married parents who experience a change are most likely to transition to living with a single mother for both the unemployment and no unemployment groups. For both groups, if single mothers change their family arrangement, they are more likely to marry than to cohabit. For children initially living with their nonmarried biological parents, the most likely change is for the parents to get married, but a substantial proportion of these children also experience a dissolution and live in a single-mother household. In contrast, for children initially living with a cohabiting mother, those who also experience an unemployment event are more likely to transition to having a single mother than to experience their parents getting married (19 versus 15 percent), but the opposite is true for those who do not experience unemployment (10 versus 15 percent).

To see better the direction of changes in family arrangements, table 3 reorganizes events using the definition for union formation and family dissolution we discussed earlier. As already shown, children with an unemployment event tend to be more likely to experience any kind of change in their family arrangement (third panel, column one). The second and third columns of panel three show that children with an unemployment event who were initially living with their nonmarried biological parents or their cohabiting mother are less likely to experience a family union and more likely to experience a family dissolution than children with the same initial family arrangement who do not experience a job loss of one of their parents (although neither of those differences are statistically significant). For children living with a single mother, an unemployment event is correlated with a higher rate of changes toward both union formation and dissolution (but only the dissolution difference is significant).⁵ As mentioned earlier, for children initially living with a mother, a union dissolution occurs if the child does not live with the mother in the new family arrangement.

Figures 1 and 2 illustrate the dynamics of changes in family arrangements for children who initially live with their married parents and single mothers, respectively.⁶ The figures show the number of changes for each month as a percentage of all children in the unemployment and no unemployment group, centered on the month of job loss (or comparable month for the no-unemployment group), which we define as the zero month. For married parents, the risk of a change in family arrangements is virtually identical for both groups of children before the zero month. However, for children experiencing an unemployment event, there is a spike at the month of job loss and an elevated risk in subsequent months relative to the comparison group. For children initially living with their single mother who loses her job, the risk of a change in family arrangements also increases during the months following the unemployment event (zero month) as compared with children living with their single mother who remains employed. However, the risk of experiencing a transition before the zero month is not the same for the unemployment group compared with the no-unemployment group. This difference in patterns before the zero month suggests that for single mothers, some of the association between unemployment and subsequent instability might not be causal.

⁵ Because of our definition of union formation, children who are initially living with married parents are only able to experience changes in arrangements that are dissolutions.

⁶ Figures for the other two family arrangements show less clear patterns because of small sample sizes and are not displayed.

Table 3. Changes in Family Arrangements, by Initial Family Arrangement

	Any change	Union	Dissolution
Children with no unemployment event			
Married parents	1.2	— ^a	1.2
Two-bio cohab	14.9	10.4	4.6
Cohab mother	26.9	16.7	10.2
Single mother	6.0	5.9	0.1
Children with unemployment event			
Married parents	3.1	— ^a	3.1
Two-bio cohab	16.0	8.5	7.5
Cohab mother	35.0	15.1	19.2
Single mother	8.6	7.3	1.3
Difference in risk (unemployment event versus no unemployment event)			
Married parents	1.9***	— ^a	1.9***
Two-bio cohab	1.0	-1.9	2.9
Cohab mother	8.1	-1.7	9.0
Single mother	2.5*	1.4	1.2**

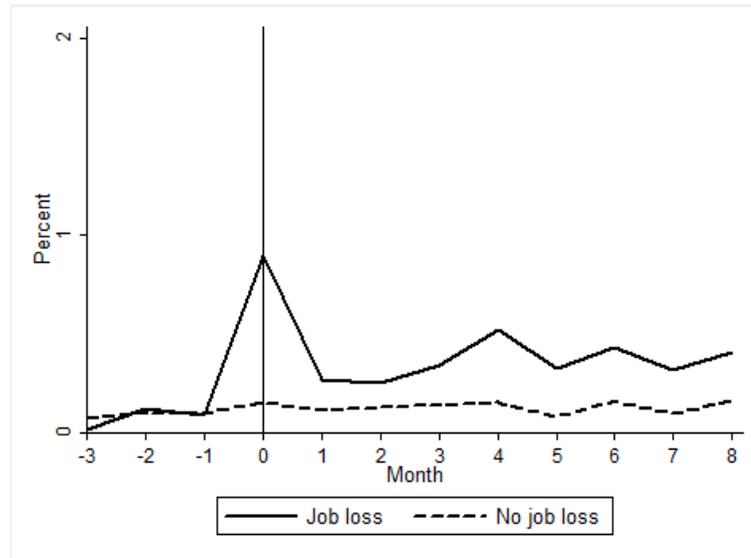
Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Note: All percentages use person weights.

^a Because of our definition of union formation, children initially living with married parents are only able to experience changes in arrangements that are dissolutions.

* $p < 0.5$ ** $p < 0.1$ *** $p < 0.01$

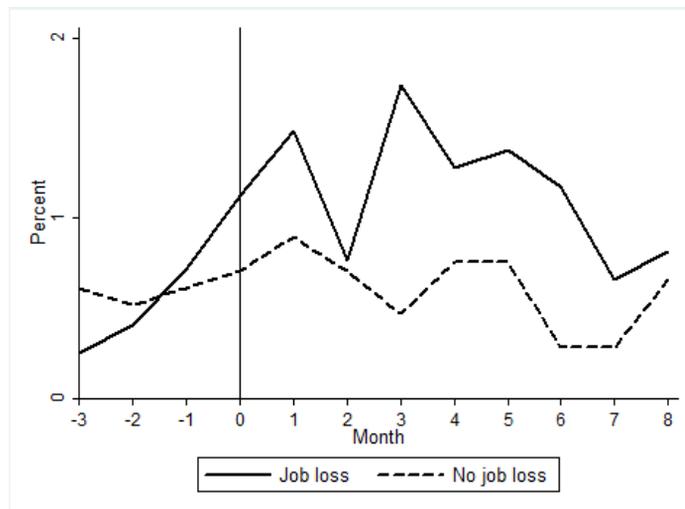
Figure 1. Changes in Family Arrangements for Married Parents



Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Notes: Includes all children who initially live with their married parents. Months are relative to the month of job loss for children with an unemployment event and the fourth month for children with no unemployment event.

Figure 2. Changes in Family Arrangements for Single Mothers



Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Notes: Includes all children who initially live with their single mother. Months are relative to the month of job loss for children with an unemployment event and the fourth month for children with no unemployment event.

Regression Analysis

In this section, we estimate several logit and multinomial logit models to further analyze the role of unemployment events in changes to family structure. We estimate models of the following type:

$$y_i = \beta_0 + \beta_1 ue_i + x_i\gamma + \mu_y + \varepsilon_i \quad (1)$$

where y_i is a binary variable that is 0 if the family arrangement of child i remains the same between the initial and final month and 1 if the child's family arrangement changes, β_0 is the constant term, ue_i is a binary variable for an unemployment event (and β_1 its coefficient to be estimated), x_i are other demographic characteristics (with coefficients γ), μ_y are year fixed effects, and ε_i is the error term. Other covariates include: sex and age of the child; age, educational level, race, and ethnicity of the primary adult;⁷ number of children in household; number of adults in household; and total household income (expressed in January 2010 values and thousands of dollars). We estimate this regression separately for each initial family arrangement in order to detect heterogeneity in how unemployment events affect changes to family arrangements.

Because these are nonlinear models, we present average marginal effects. The average marginal effect of a dummy variable is obtained by calculating the risk of a family change for each child separately for each value of the variable. Other characteristics of the child remain the same. The difference in probabilities is the marginal effect for each child, and the average of these differences is the average marginal effect. All marginal effects are expressed as percentage values. Standard errors are clustered at the household level.

Table 4 presents regression results for any change in family arrangements by initial family arrangement. We first report the average marginal effect excluding individual controls (but including year fixed effects) and then including all individual controls. The unemployment coefficient is positive and statistically significant for married parents with and without controls. Adding controls reduces the coefficient slightly, but it remains significant. For children initially living with their nonmarried biological parents, the effect is positive but small and insignificant. The unemployment coefficient is large and significant for children initially living with their cohabitating mothers.⁸ Finally, for children initially living with their single mother, the effect is slightly larger than for children initially living with their married parents, but not quite significant at the 5-percent level when all variables are included in the regression.

There are a few other notable results shown in table 4. Specifically, we see that for all initial family types, the likelihood of a change decreases as the primary adult gets older. This is consistent with other research that shows that family instability is higher for younger parents. The results also show that blacks are less likely to transition out of being a single mother than are whites, but blacks are more likely to experience a marital dissolution than are whites.

As we have seen in table 3, unemployment events for the two cohabitation categories are correlated with a lower chance of union formation, but a higher chance of dissolution.

⁷ The primary adult of a child is defined as the mother, if present; otherwise, the father.

⁸ These regression results are based on a fairly small sample size. Such a large coefficient for the unemployment effect suggests that the result is being influenced by a few outliers.

Because these two effects cancel each other out, small coefficients for any kind of change in table 4 may mask larger coefficients for a specific kind of change. To address this possibility, we next distinguish between changes toward union formation and changes toward family dissolution. We use multinomial models because there are now two possible outcomes. Correspondingly, the outcome variable y_i now has three values: 0 for no change, 1 for a change toward union formation, and 2 for a change toward family dissolution. As before, we estimate the model separately for the different initial family arrangements.

Table 5 presents results of the multinomial model.⁹ For two-bio cohabiting couples, the observed increase in changes in family arrangements occurs in the form of a higher risk of family dissolutions. By contrast, children in these families who experience an unemployment event are less likely to see a change in family arrangements toward union formation. Note, however, that neither of these coefficients is precisely estimated. For children initially living with their cohabiting or single mothers, most of the changes also occur toward family dissolution. These results show that any significant relationship between a job loss and changes in family arrangements reflects dissolutions rather than union formations.

As a final part of our analysis, we examine whether changes to family arrangements differ by socioeconomic status of the mother. To this end, we interact the unemployment variable in equation 1 with a dummy variable that is 1 if the mother has a high school degree or more and 0 if she has less than a high school degree. Table 6 displays logit results for any change in family arrangements in the first four columns and multinomial logit results for type of change (union versus dissolution) in the last two columns. Because the sample sizes and number of transitions are very small for those who were initially in the “mother cohab” and “two-bio cohab” categories, we report results only for the “two married parents” and “single mother” initial categories.¹⁰ All of the coefficients for interaction terms in the first four columns are negative, but not statistically significant. However, when we separate out changes that we characterize as unions and dissolutions, the unemployment/education interaction term for single mothers is negative and significant with respect to dissolutions (i.e., where the child lives without the mother in the new family arrangement), while the main effect is positive and highly significant. This result suggests that the negative consequences of job loss for children initially living with single mothers is concentrated among those with less-educated mothers.

⁹ As mentioned earlier, children initially living with their married parents are only able to experience changes in arrangements that are dissolutions. Thus the results in table 4 are equal to results for changes toward family dissolution and are not displayed here.

¹⁰ Recall that those who start out living with married parents can, by definition, only experience a dissolution, so the multinomial logit results are only relevant for single mothers.

Table 4. Regression: Binary Logit for Any Change in Family Arrangements

	Married parents		Two-bio cohab		Cohab mother		Single mother	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Unemployment event	1.99*** (0.33)	1.64*** (0.31)	0.44 (3.07)	0.53 (3.26)	11.47 (7.31)	17.86* (7.06)	2.44* (1.02)	2.02 (1.11)
Child: male		0.21 (0.18)		-4.33 (2.64)		10.97 (5.71)		-0.27 (0.82)
Child: age		0.05 (0.03)		-0.57 (0.58)		-0.49 (1.03)		-0.11 (0.15)
Adult: high-school degree		0.82 (0.52)		0.08 (4.18)		5.46 (11.79)		2.22 (2.12)
Adult: some college		0.03 (0.43)		6.27 (4.57)		-7.51 (11.21)		3.23 (1.92)
Adult: Hispanic		0.20 (0.41)		-5.92 (4.19)		-24.08* (7.46)		2.11 (2.07)
Adult: Black		1.40* (0.65)		1.17 (4.67)		-1.13 (8.56)		-5.95* (1.01)
Adult: other race/ethnicity		-0.41 (0.45)		2.87 (5.68)		-26.74* (8.00)		-1.69 (1.82)
Adult: age		-0.10* (0.02)		-0.63* (0.23)		-1.60* (0.67)		-0.28* (0.08)
Household: number of children		-0.08 (0.15)		-3.65* (1.66)		-1.54 (3.57)		-0.75 (0.53)
Household: number of adults		0.42** (0.14)		2.76 (2.00)		-19.87 (12.58)		-0.63 (0.64)
Household: income		0.00 (0.02)		1.19* (0.55)		3.74** (1.33)		-0.10 (0.15)
Number of working adults		0.49 (0.68)		-6.55 (8.56)		9.71 (13.14)		-2.03 (2.07)
Unemployment Rate		-0.06 (0.06)		0.25 (0.98)		-0.76 (1.56)		-0.07 (0.26)
Observations	22,280	22,280	849	849	238	238	4,072	4,072

Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Notes: All standard errors are clustered at the household level. Standard errors are in parentheses. Regressions include year-fixed effects. Household income is expressed in January 2010 values and 1000 dollars.

* $p < 0.5$ ** $p < 0.1$ *** $p < 0.01$

Table 5. Regression: Multinomial Logit for Type of Changes in Family Arrangements

	Two-bio cohab		Cohab mother		Single mother	
	Union	Dissolution	Union	Dissolution	Union	Dissolution
Unemployment event	-0.54 (2.67)	1.23 (2.15)	3.14 (6.03)	13.98* (6.56)	0.75 (1.06)	1.59** (0.61)
Child: Male	-2.27 (2.13)	-2.11 (1.94)	0.71 (4.17)	10.27* (5.00)	-0.60 (0.79)	0.30 (0.25)
Child: Age	-0.58 (0.49)	0.03 (0.36)	-0.13 (0.66)	-0.43 (1.00)	-0.08 (0.14)	-0.02 (0.04)
Adult: High school degree	1.94 (3.46)	-1.98 (2.80)	5.30 (9.45)	0.96 (9.22)	3.37 (1.94)	-0.69 (0.50)
Adult: Some college	2.20 (3.38)	3.91 (3.10)	4.75 (9.07)	-10.22 (8.53)	4.23* (1.90)	-0.45 (0.48)
Adult: Hispanic	-5.10 (4.13)	-1.39 (3.54)	35.22 (27.33)	-226.18* (38.91)	1.40 (1.67)	0.74 (0.55)
Adult: Black	0.56 (3.83)	0.59 (2.61)	-148.66 (109.83)	45.54 (27.20)	-7.33* (1.39)	0.34 (0.42)
Adult: Other race or ethnicity	-2.17 (5.14)	3.79 (2.83)	-147.71 (109.17)	19.80 (32.80)	-4.03 (2.40)	1.14* (0.55)
Adult: Age	-0.24 (0.20)	-0.38* (0.13)	-1.01 (0.86)	-0.50 (0.62)	-0.29* (0.08)	-0.00 (0.02)
Household: Number of children	-2.19 (1.41)	-1.38 (1.02)	3.56 (3.72)	-5.59 (3.59)	-0.75 (0.52)	-0.04 (0.10)
Household: Number of adults	-0.88 (2.09)	2.98** (0.98)	-139.51 (97.06)	25.26 (27.45)	-1.43* (0.66)	0.32* (0.15)
Household: Income	1.04* (0.44)	0.09 (0.35)	1.64 (1.43)	1.67 (1.32)	-0.12 (0.15)	0.02 (0.03)
Number of working adults	3.63 (7.11)	-5.83 (3.68)	9.02 (12.04)	2.65 (12.82)	-2.45 (1.68)	0.32 (0.54)
Unemployment rate	0.35 (0.87)	-0.13 (0.40)	-2.85 (2.66)	1.54 (1.27)	-0.12 (0.24)	0.05 (0.08)
Observations	849	849	238	238	4,072	4,072

Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Note: All standard errors are clustered at the household level. Standard errors are in parentheses. Regressions include year-fixed effects. Household income is expressed in January 2010 values and 1000 dollars.

* $p < 0.5$ ** $p < 0.1$ *** $p < 0.01$

Table 6. Regression: Binary and Multinomial Logit for Changes in Family Arrangements with Education Interactions

	Binary Logit				Multinomial Logit	
	Any Change in Family Arrangements				Union	Dissolution
	Married parents		Single mother		Single mother	
Unemployment event	2.82*	2.69*	3.33	2.82	-1.03	11.18***
	(1.32)	(1.27)	(3.69)	(3.82)	(3.61)	(2.77)
Unemployment x high school	-0.56	-0.74	-0.69	-0.91	1.84	-9.79*
	(0.80)	(0.80)	(3.69)	(3.76)	(3.68)	(2.41)
Adult: High school degree	0.48	0.78	2.38	2.91	-0.58	0.29
	(0.51)	(0.46)	(2.39)	(2.34)	(0.79)	(0.25)
Child: Male		0.21		-0.26	-0.09	-0.02
		(0.18)		(0.82)	(0.14)	(0.04)
Child: Age		0.07*		-0.12	2.35	9.15***
		(0.03)		(0.15)	(2.90)	(2.21)
Adult: Hispanic		0.27		2.13	1.35	0.77
		(0.42)		(2.09)	(1.69)	(0.56)
Adult: Black		1.46*		-5.93*	-7.32*	0.35
		(0.66)		(1.01)	(1.39)	(0.42)
Adult: Other race or ethnicity		-0.42		-1.67	-3.98	1.15*
		(0.45)		(1.84)	(2.42)	(0.54)
Adult: Age		-0.11*		-0.27*	-0.29*	0.00
		(0.02)		(0.08)	(0.08)	(0.02)
Household: Number of children		-0.08		-0.79	-0.77	-0.05
		(0.15)		(0.53)	(0.52)	(0.10)
Household: Number of adults		0.47***		-0.72	-1.52*	0.32*
		(0.14)		(0.64)	(0.66)	(0.15)
Household: Income		-0.01		-0.08	-0.10	0.02
		(0.03)		(0.14)	(0.15)	(0.03)
Number of working adults		0.52		-2.02	-2.51	0.34
		(0.67)		(2.08)	(1.69)	(0.54)
Unemployment rate		-0.07		-0.05	-0.11	0.05
		(0.06)		(0.26)	(0.24)	(0.08)
Observations	22,280	22,280	4,072	4,072	4,072	4,072

Source: Authors' analysis of Survey of Income and Program Participation data, 1996–2008.

Notes: All standard errors are clustered at the household level. Standard errors are in parentheses. Regressions include year-fixed effects. Household income is expressed in January 2010 values and 1000 dollars.

* $p < 0.5$, ** $p < 0.1$, *** $p < 0.01$

Robustness Checks and Other Considerations

Our analysis focuses on comparing family arrangements 3 months before the unemployment event with family arrangements 9 months after. In doing so, we do not capture all changes that occur during these months. Specifically, if children experience multiple family transitions during that time, then our analysis misses such intermediate events. To understand the scope of this underreporting and how it might affect our results, we looked at the number of such multiple-transition events. There are only a few such cases and the percentage of them is slightly larger for children with an unemployment event, implying that our regression analysis is conservative in assessing the relationship between an unemployment event and family instability.

We also experimented with an alternative definition of unemployment. Specifically, we define an unemployment event as a situation in which the adult keeps looking for a new job for five months after job loss instead just one (if not having found a job in the meanwhile). We select five months to cover at least two SIPP waves of four months' length because respondents have a tendency to give the same answer to the employment status question for all months of a wave. Most results for this specification are similar to those presented here, with the exception of some results for initial family arrangements with small cases.

Conclusion

This paper examines whether parental job loss affects family arrangements for families with children. Our results suggest that children who experience an unemployment event in their families are also more likely to see a destabilizing change in family arrangements in subsequent months, irrespectively of the initial family arrangement. For children initially living with their single mothers, these negative consequences seem to be concentrated among mothers with no high school degree. These results provide a potential link between parental job loss and well-being of children through changes in family arrangements.

Our results suggest that the negative consequences of losing a job extend beyond the well-being of the unemployed parent and affect other members of a family. Family instability brought on by a parent's job loss can have negative consequences for children over and above the loss of economic resources if they experience instability as stressful and problematic as a large, growing body of evidence suggests (Sandstrom and Huerta 2013). Moreover, the new family arrangement itself can be less conducive to the child's development.

Some policy implications follow from these findings. First, government programs geared toward the unemployed or families in fragile economic situations could include services that help stabilize families with young children. Such services could include psychological counseling for parents and children performed by social workers. These counseling services could help the adult who has lost a job to cope with the new situation and provide strategies for adults living in the household to be supportive in such a situation. These services could also reach out to children in such families to help them understand the changed situation.

Two government programs would be especially well-suited to target some of their resources toward families with young children: the unemployment insurance (UI) program and Temporary Assistance for Needy Families (TANF). The UI program provides cash benefits to unemployed workers. Some states give out higher benefits for dependents in

recognition of the higher needs of these families, and an expansion of the dependent allowance could help to buffer the income loss. A similar situation exists for TANF, which provides cash benefits to families with dependent children. Although the program provides important benefits, its focus on cash benefits could be extended to include counselling services.

A related aspect concerns requirements to become or remain eligible for such programs. Requirements for remaining eligible include, for instance, documentation of work search efforts for UI and work requirements for TANF recipients. They provide strong incentives to find employment for beneficiaries, but they can also induce stress because failure to comply with these rules may lead to reduction or termination of benefits.

In terms of eligibility criteria, one possibility to support families with young children hit by unemployment could be to define less stringent requirements for them, such as making those seeking part-time work more generally eligible. In 2012, only eight states provided equal access to UI benefits for part-time workers; another 18 states provided access to some but not all part-time workers, (e.g., those with disabilities) (Lindner and Nichols 2012). Changing such eligibility rules could significantly boost reciprocity rates among the unemployed, especially those with small children.

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