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Parental Job Loss and Family Conflict Abstract

Job loss remains a permanent feature of the American economy and may affect family functioning. Using representative data from the Panel Study of Income Dynamics (n = 2800 couple-year observations), we show associations between fathers' job losses and levels of family conflict as well as an increased risk of experiencing any conflict, high levels of conflict, and physical conflict. In several instances, these associations were reflected in both fathers' and mothers' reports of the conflict. These associations are weaker at higher levels of family income. In contrast, mothers' job losses were in general not associated with conflict. These findings are important because the particular negative interactional styles reflected in the conflict measures are strongly predictive of marital distress and divorce.

Parental Job Loss and Family Conflict

Job loss remains a permanent feature of the American economy. It is well-established that involuntary job loss and unemployment can lead to poorer future outcomes (e.g., lower earnings) in the labor market for the affected worker, high levels of material hardship, and poor physical and mental health for adults in the family (Charles and Stephens, 2004; Conger and Elder, 1994; Farber, 1993; Jacobson, LaLonde, and Sullivan, 1993; Kessler, Turner, and House, 1987, 1988, 1989; Price, 1992; Rege, Telle, and Votruba, 2008; Ruhm, 1991; Yeung and Hofferth, 1998).

Somewhat surprisingly, only a handful of large-scale national studies have examined the link between job loss and key measures of family functioning, such as family conflict. This family dynamic contributes importantly to many outcomes, including marital stability and the short and long-run development of children in the household. Furthermore, few such studies have focused on the relative importance of mothers' versus fathers' job losses in creating family conflict. This is an important omission given the high share of dual-earner families in contemporary American society. From a policy perspective, it is important to understand the economic correlates of family conflict given current government efforts to promote marriage and increase marital stability (Ooms, 2005).

The present paper uses high-quality, large-scale nationally-representative longitudinal data to examine (a) the association between parental job loss and the existence and nature of family conflict (as reported separately by mothers and fathers) and (b) whether this association differs by mothers' versus fathers' job loss. The paper is organized as follows: Section 1 reviews the existing literature on the topic, Section 2 describes our data and analytic methods, Section 3 presents the main results, Section 4 presents sensitivity tests, and Section 5 concludes.

1. Background and Significance

When spouses experience economic hardship, they may suffer as a couple as well as individually. Conger and Elder (1994), in their widely-cited "family stress model" of economic influence on marital relations, describe how involuntary job losses and economic hardship could adversely affect marital relationships. This association occurs in part via the psychological stress of the job loss, which can be a function of the real and perceived economic consequences of losing a job. Similar research finds that negative life events are associated with lower marital adjustment and that stressful circumstances (including stress at work) are related to poor marital communication (Cohen and Bradbury, 1997). Although there is empirical support for these hypotheses, much of it is derived from relatively small, local samples, such as those experiencing the Iowa farm crisis of the 1980s (see, e.g., Conger, Rueter, and Elder, 1999). An important new contribution of the present study is to examine these relationships on a national scale.

The few existing studies that do rely on large-scale representative data to address the impact of involuntary job loss on measures of family functioning have focused on the associations between job loss (or unemployment) and divorce and often find significant correlations (Charles and Stephens, 2004; Kalil, Ziol-Guest, and Levin-Epstein, 2010; Yeung and Hofferth, 1998; Rege et al., 2008). Although divorce is an important outcome to study in its own right, the family relationship factors associated with divorce also merit attention. In an era in which government policy is focused on strengthening marriages, this question is especially important to understand.

Gender, Job Loss, and Family Conflict

Existing research has emphasized the (typically negative) impact on the family of *fathers*' involuntary job losses. An important omission in this literature is the lack of consideration

regarding the experiences of working mothers. This singular focus on fathers was likely sufficient in an era when fathers were more often primary breadwinners and fathers' work-role identities predominated over other family roles, such as caregiver; however, scholars have noted historical shifts in gender role attitudes that have altered the landscape of fathers' roles, from a preoccupation with the father as economic provider to the more modern emphasis on fathers as nurturers and co-caregivers (Pleck and Pleck, 1997). Moreover, the modal American family now contains two earners and, in about a quarter of dual-earner families, working mothers are the primary breadwinners (Crompton and Geran, 1995; Nomaguchi, Milkie, and Bianchi, 2005; Winkler, 1998). Thus, it is important that we understand the impact of mothers'—as well as fathers'—employment experiences and examine the impact of one parent's employment experiences in the context of those of the other parent in the same family.

Despite high rates of maternal employment, one could imagine that mothers' involuntary job losses do not have as great a negative impact on marital quality as do fathers' involuntary job losses. This could be a function of cultural expectations and the subjective meanings attached to social roles; in particular, the persistent cultural emphasis on the role of father as breadwinner (Charles and James, 2005; Gerson, 1994; Nomaguchi et al., 2005; Rosenfield, 1992).

Additionally, although men's time with children has been increasing over time, women still assume the primary care of children (Bianchi, 2000). Thus, mothers who experience involuntary job losses may more seamlessly substitute the role of household manager and caregiver during periods of joblessness, minimizing family conflict. In contrast, it may be far less normative for fathers to transition to this role, which could spark conflict as well. In short, it is possible that mothers' time at home following a job loss is more productively spent in household management and investing in children, thereby dampening any adverse effects.

Support for these hypotheses is available in several studies. In a small-scale study of economically-stressed farm families in Iowa, Conger and colleagues (1990) found that economic pressures diminished couples' perceptions of marital quality and stability, in part by increasing the negativity of each spouse toward the other; however, the primary impetus for reciprocal spousal hostility and withdrawal was the father's negative response to financial problems. These researchers posited that economic pressures reflect most adversely on the father's social role and identity and are consequently more likely to elicit his negativity in family interactions.

Similarly, Kalil and Ziol-Guest (2008), using national longitudinal data from the Survey of Income and Program Participation (SIPP), found links between fathers' involuntary job losses and declines in children's academic progress in two-parent households. In contrast, mothers' involuntary job losses had no association with children's academic progress, even in mother-breadwinner households. As such, these authors concluded, the adverse impacts of fathers' involuntary job losses in two-parent families may have less to do with income losses than with family dynamics. Similarly, Kalil et al. (2010), using the National Longitudinal Survey of Youth, showed that the duration of fathers' unemployment was a stronger correlate of divorce within couples than was the duration of mothers' unemployment. The results from these studies not only underscore the relevance of studying the impact of job loss on family conflict, but also of observing fathers' and mothers' job loss experiences in the same households, as the present paper does.

2. Methods

Sample and Variable Description

We use the Child Development Supplement (CDS) to the Panel Study of Income

Dynamics (PSID) combined with data from the core PSID survey for our analysis. The PSID is

a longitudinal survey of American households that focuses on household income and the education and employment experiences of household heads (males, by default, in married-couple households) and spouses (when present) (http://psidonline.isr.umich.edu). It is the longest-running study of its kind in the United States. The initial sample was constructed in 1968 and was comprised of approximately 5,000 households. Respondent households were interviewed annually until 1997, after which time the survey moved to a biennial format. Children born into sample households enter the survey as independent respondent-units when they exit their parents' household; these children constitute representative birth cohorts (Duncan and Hill, 1985). In this way, the sample size has grown to roughly 7500 families in 2007 (the most recent available wave), despite the challenges of tracking households over time. Moreover, sample weights are continually recalibrated to account for inevitable attrition, and as a result, the PSID sample continues to be representative of the non-immigrant U.S. population (Fitzgerald, Gottschalk, and Moffitt, 1998).

One of the disadvantages of the early PSID instruments was the comparative lack of information available on family interactions and child development. The CDS was designed to address this shortcoming and to compliment the core economic data (http://psidonline.isr.umich.edu/CDS/usergd.html). All PSID respondent households with resident children ages 13 and younger were recruited into the CDS-I. The nearly 90% response rate resulted in an initial sample of 3,600 children in 2,400 households. Additional waves were fielded in 2002 and 2007, respectively. Although focused on children, an important component of the CDS survey instrument is a series of questions regarding family-level behaviors and relationships. The ability to combine this information with the economic information available

in the core survey make these data especially appropriate for examining the issues of interest here.

Our sample consists of Primary Care-Giver (PCG) respondents to the CDS survey (most often the mother) with resident spouses. We only use those households for which the primary care giver is the mother or father, i.e., households that are headed by grandparents or characterized by other arrangements are excluded from the sample. These respondent-pairs are then matched to the PSID core, from which we collect demographic information and the employment and income histories of the fathers and mothers. We do this for each wave of the CDS, which are then pooled together. Thus, the unit of observation is a couple-year. There are approximately 2,800 such observations in total. Of these, roughly 15% appear in only a single wave of the CDS, 48% appear in exactly two waves, and the remaining 37% appear in all three waves.

We construct measures of family conflict using responses to a set of five statements.

Respondents are asked to (strongly) agree/ disagree with each of the following:

- We fight a lot in our family.
- Family members sometimes get so angry they throw things.
- Family members (do not) always calmly discuss problems.
- Family members often criticize each other.
- Family members sometimes hit each other.

In the 2002 and 2007 surveys, respondents were given the additional option to "neither agree nor disagree," so in order to maintain consistent measures across each wave, we collapse the range of answers to simple yes/no (agree/disagree) responses. Using these responses, we construct five different outcomes, each of which is designed to describe a different aspect of family conflict.

The first is a simple *conflict index*, which ranges from 0-5 and is constructed by summing the affirmative responses (agree or strongly agree) to each question. The remaining four measures are dichotomous. The *any conflict* outcome equals 1 if the respondent agrees with any one of the five statements and *high conflict* indicates a score of 3 or higher on the conflict index. The remaining two measures describe the nature of the conflict: *Verbal conflict* indicates that family members a) do not always discuss problems and/or b) often criticize each other and/or c) fight a lot. *Physical conflict* indicates that family members a) sometimes hit each other and/or b) get so angry they throw things.

These questions are asked of both the mothers (PCGs) and fathers (OCGs).

Unfortunately, as of this writing, fathers' reports are only available for the first two waves of the CDS, representing only about 60% of available PCG sample. Nonetheless, an important aspect of this project is to contrast fathers' perceptions of family relationships to those of their wives; consequently, we use all three CDS' waves to model mothers' perceptions of family conflict but only the 1997 and 2002 waves to examine fathers' perceptions. The correlation between fathers' and mothers' conflict indices, where both are available, is .38.

We consider jobs lost by both fathers and mothers. Following Ruhm (1991), Stephens (2001, 2002) and Charles and Stephens (2004), the job losers in our sample are those individuals who report being separated from their employment as a result of either a plant/firm closure or lay off/dismissal. Heads of households (fathers) report their own job losses as well as those of their spouse. Unfortunately, the data are reported in a way that we cannot distinguish dismissals from lay-offs. This may be of some concern if one supposes the attributes that place an individual at risk of being singled out for dismissal (as opposed to being swept up in a wave of layoffs) are detrimental to family functioning as well. In such cases, the estimated association between job

loss and family relationships may be biased by the inability to directly observe these traits. On this point, Boisjoly, Duncan, and Smeeding (1998) report that only 16% of the lay-offs/dismissals reported between 1968 and 1992 were actual firings; thus, any bias resulting from the inclusion of these individuals, while non-trivial, is likely to be minimal.

Descriptive statistics are presented in Table 1. As can be seen, the average score on the conflict index is .92 using mothers' reports and .82 using fathers' reports. An equal share (55%) of mothers and fathers report any conflict. Ten percent of mothers and 7% of fathers report high conflict (a score of 3 or higher on the scale). Over 50% report some verbal conflict. In contrast, 16% of mothers, but only 10% of fathers, report some physical conflict. The average father's age is 41, compared to 39 for mothers. This sample is both well educated (roughly 60% of both the spouses have at least some college experience) and compensated (mean annual family income is about \$93,000 in 2005 dollars). Considering the sample is comprised of married couples with children, this should not be too surprising. Couples have been married an average of 13 years and have two children, on average. The average age of the oldest child is 12, compared to 8 for the youngest. Twenty-eight percent of fathers and 23% of mothers report ever having lost a job prior to the CDS' survey point (within the marriage).

3. Results

We first model each spouse's conflict index as a function of prior job loss by either partner, controlling for current employment status and the demographic and household characteristics described above (ages of husband, wife, oldest and youngest child, family size, duration of relationship) and dummy variables for each CDS wave, with the 1997 wave omitted. We next add current income to the model, and finally, we interact income with each job loss variable to see whether family income mediates and/or moderates the impact of job loss on

family conflict. We then examine each of the dichotomous outcomes in a similar fashion. The conflict index models are estimated using ordinary least squares. Given the relatively low rates of high conflict and physical conflict, we estimate each of the dichotomous outcome models via probits. We use Huber-White style robust standard errors to account for the fact that a number of the couples appear in our samples more than once. We also apply the cross-sectional, household-level weights constructed by the PSID staff in order to generate representative results.

The results for the conflict index models are presented in Table 2. Looking at the control variables, the coefficient estimates move in the same direction for both mothers' and fathers' responses in most cases. Mothers' employment is positively associated with mothers' and fathers' reports of the amount of conflict. Having more children in the household, as well as age of youngest child, appears to increase the strains on family relationships.

With respect to our first key variable of interest, as can be seen in column (1) of each panel of Table 2, job loss by either spouse by itself has no significant effect on either partner's report of the amount of family conflict. This does not change when we add current family income to the model (column 2); however, income becomes important in the context of job loss when it enters the models as a moderator. In column 3, using the mother's report of conflict, a father's job loss is associated with 0.16 increase in her conflict index (a 17% effect size).

Moreover, the estimated interaction effect suggests that the total effect is reduced as income increases: for each additional \$10,000 in annual family income, the scale is reduced 0.12 points. Thus, at family income levels of approximately \$100,000, the father job loss effect on mother-reported conflict is essentially negated, and at higher levels, the experience may in fact lead to improved family relationships. These associations do not appear to be reflections of the couples'

socio-economic status, as the estimated interactions described here and elsewhere do not change when we include interactions between job loss and parental education.

With respect to the associations between fathers' job losses on the fathers' conflict index, the main effect and interactions are both smaller and not significant. Part of this difference may be due to the smaller sample size, but it may also be in part a reflection of actual differences in perception between husbands and wives.

The next set of tables presents the results from similar specifications applied to the four dichotomous conflict measures: any conflict, high conflict, verbal and physical conflicts. These models are estimated via general probability models (probits). The number reported in the top cell associated with each variable is the average marginal effect, i.e., the change in the predicted probability associated with a unit-change in the given regressor. The second number (in parentheses) is the p-value of the actual coefficient estimate, corrected for potential clustering. For parsimony, we present only two models for each of these analyses; Model 1 includes all of the control variables as well as annual family income, and Model 2 adds the two income interactions.

Turning first to mothers' responses in each Model 1, again, job loss by either spouse has no statistically significant association with any of the outcome measures (Table 3a). Again, this pattern changes once we interact (father's) job loss with family income. As can be seen in each Model 2, a father's job loss is associated with increases in the likelihood of any conflict, high conflict, and physical conflict (as reported by mothers). For each of these three outcomes, the interaction between a father's job loss and family income is negative and statistically significant. This suggests that the associations become less strong as family income increases. To put these

¹ For a continuous regressor χ_j this is $F'(\chi_i'\beta)\beta_j$, where F is the CDF. For a dummy variable it is the change in predicted probability associated with turning the variable from "off" to "on." See Cameron and Trivedi (2005), p. 467.

numbers in context, consider physical conflict. If we set income equal to the sample mean, then a father's job loss increases the probability of physical conflict by 2.4 percentage points, an effect size of roughly 15%. In none of these models do we find any significant associations with mothers' job losses.

The fathers' responses models are shown in Table 3b. The results are similar in some respects and different in others. First, unlike in the mothers' reports, job loss has no effect in the "any conflict" model. Second, job losses by both fathers *and* mothers have statistically significant effects on fathers' reports of high conflict, but income moderates only the mothers' job losses. Third, as was the case with mothers' reports, job loss has no effect on verbal conflict. Finally, just as we saw in the regressions using mothers' reports, we see positive associations between a father's job loss and physical conflict, and this association is moderated by family income.

4. Sensitivity Analyses

We first examined the proximal vs. distal effects of job loss. We expected the associations with family conflict to be the highest in the immediate aftermath of an involuntary job loss, as family members grapple with new roles and expectations, and the job loser in particular may be acutely stressed or anxious. Unless the conflict leads to marital dissolution, we expect these effects to subside with time. To investigate, we categorized the most recent job loss of the husband or wife according to when it occurred in relation to the time of the CDS interview: 0-2 years prior (25% of all husband job losses, 24% of all wife job losses), 3-5 years prior (16%, 21%), 6-10 prior (25%, 27%) and more than 10 years before (34%, 28%). We estimated these models only on the sample of partners who have been married for at least 10 years to avoid confounding the potential effect of a distant job loss with the effect of being in a

relatively young marriage. These models also included controls for multiple job losses by either fathers or mothers to determine whether any potential effect was due more to a repeat job loss as opposed to recent job loss (these latter estimated coefficients were small and insignificant).

In general, the results from these models confirmed our expectations (regression results available upon request). A father's job loss 0-2 years prior to the interview (but not in more distant years) was positively associated with mothers' reports of any conflict, high conflict and verbal conflict and in each case the main effect was moderated by family income. However, the opposite was true in the physical conflict models. Here, a father's job loss six or more years prior showed a significant positive association with mothers' reports of physical conflict, although again, income had a significant moderating effect.

Turning to fathers' responses, we found significant effects only in the high conflict models: a father's job loss 10 or more years prior had a positive association with high conflict, but it was not moderated by income. In these father-response models, mothers' job losses (at almost all time points prior to the interview) were positively associated with high conflict and were moderated as before by income. In sum, the findings reported in the previous section showing associations between fathers' job losses and family conflict appear to be driven in large part by fathers' recent job losses, with mothers' reports of physical conflict being the exception.

We also examined a variety of alternative methods of modeling income. In the previous section, income was treated linearly, that is, a dollar increase (or more specifically a \$10,000 increase) in income was constrained to have the same effect regardless of where the family was located on the income distribution. This approach may obscure potential non-linearities in the relationship between income and family dynamics. To investigate the appropriateness of our

initial models, we added the square of family income and used the natural log of income; neither of these alternatives significantly altered the results.

We also incorporated a pair of spline specifications, allowing for knots first at the sample median and then at each quartile. Once again, the main income effects were largely insignificant. The one exception was in the case of the "any conflict" models; here, income above the median showed a slight, positive effect for both wives and husbands. We could not reject the equality of job loss-income interactions between each of the income segments, which suggests empirically the linear treatment of income in the main models is not inappropriate. These supplemental models did provide some evidence that the offsetting effect of income (as measured by the interaction) is strongest in the highest income quartile. Splitting the sample into quartiles according to income generated similar results. Unfortunately, in both the spline and quartile models, lack of statistical power and the large standard errors that resulted limited our ability to draw definitive distinctions between effects within and between the different points in the income distribution, especially in regard to the lower three quartiles.

These models, together with the findings from the main models described earlier, suggest that at incomes exceeding roughly \$110,000, job loss in fact has a positive effect on family relationships. One possible explanation for this result is that at these levels, in the presence of savings, wealth, and possibly severance packages, families may benefit from the additional "leisure" time that losing a job could provide.

We also tested a model that included income in the first year of marriage, to investigate the potential importance of the dynamic nature of income, especially with regard to job loss.

Income in the first married year has a positive association with both any conflict and verbal conflict, but in all cases, the interaction between this measure and job loss is small and

insignificant and not significant in any of the remaining models. Furthermore, including firstyear income as a control in the models presented in the previous section did not change any of the results.

Finally, to investigate the importance of role perceptions, we created a "breadwinner" indicator variable from responses to statements presented to each caregiver in each wave of the CDS (we focus here on the mothers' responses given that the fathers' responses are only available for the first two waves.) These statements are:

- It's better if the husband earns the living
- The wife is happier at home taking care of children
- It's more important for the wife to help her father's career than to have one of her own

 The range of responses is the same as those used for the conflict statements and again, we

 collapse them to either "agree" or "disagree." The mother is coded as identifying with a

 "husband-as-breadwinner" perception if she agrees with at least two of these statements. The

 resulting dummy variable displayed a strong negative association with mothers' reports of

 physical conflict, but did not affect the association between fathers' job loss and this outcome,

 either as a moderating or a mediating condition. Moreover, it had no association with any of the

 other outcomes (as a mediator or moderator).

5. Conclusions

We identified several significant correlations between fathers' job losses and the level and type of family conflict as reported by both fathers and mothers. These same associations were found much less frequently when the job loser in the family was the mother. More specifically, we found that fathers' job losses were associated with levels of family conflict and with an increased risk of experiencing any conflict, high levels of conflict, and physical conflict.

In two of these instances (reports of high levels of conflict and physical conflict), associations were reflected in both fathers' and mothers' reports of the conflict. Mothers' job losses were associated only with fathers' reports of high conflict. These findings are important because these particular negative interactional styles have been found to be most predictive of marital distress and a clear discriminator of couples who are experiencing problems and seriously considering divorce versus those who are not experiencing marital problems (Conger et al., 1990). Thus, our findings provide insights into the chain of family interactions that may link fathers' job losses to divorce.

It is interesting to note that even in as contemporary a sample as the PSID, we find correlations between fathers'—but generally not mothers'—job losses and marital conflict. It may be despite high numbers of dual-earner and mother-breadwinner families, fathers have a continuing stake in the breadwinner role as a primary source of identification. These findings echo recent ones by Kalil et al. (2010), who showed that the effect of duration of unemployment on the risk of divorce was significantly stronger for fathers' unemployment than for mothers' unemployment (and this was true whether or not the couple had children). Our findings here could also reflect the idea that men in general are more susceptible than women to emotional and behavioral problems as a result of economic difficulties (Kelvin and Jarrett, 1985). In other words, fathers' job losses appear to have more adverse consequences on the negative behavior of husbands, and this is how the impact on marital conflict arises. Unfortunately in these data, we do not know which partner is either instigating or maintaining the conflictual interactions.

Confidence that our findings reflect "real" phenomena are bolstered by the fact that the association between fathers' job losses and high levels of conflict and physical conflict are reported by mothers as well as fathers. This is true even though, on average, fathers report

somewhat less conflict in the family than do mothers, and the two reports are not very highly correlated. If reported conflict in the family was completely subjective, we might worry about a bias in which one member of the couple reports conflict even where it may not exist. Thus, it is reassuring fathers' reports of conflict generally parallel the findings for mothers' reports, despite the fact that the sample size for fathers' reports is substantially smaller.

For the findings with the largest effect sizes – high conflict and physical conflict – the results from the mothers' reports of conflict suggest that recent fathers' job losses as well as job losses in the distant past are correlated with current levels of marital conflict. Recent fathers' job losses appear to be associated with high conflict, whereas more distant fathers' job losses are associated with physical conflict. This suggests that stressful life events can have immediate impacts as well as enduring ones. Concurrent associations between a stressful life event such as a job loss and higher levels of marital conflict seem self-evident. At the same time, the early years of a marriage may represent a sensitive period, and job losses that occur in this period may set in motion a pattern of conflict resolution (or lack thereof) that persists throughout the marriage. Job loss in the early years of a marriage may also affect other events, behaviors, or conditions within a marriage that lead to its deterioration as time goes by. Although some couples who experienced job losses many years ago may have been unable to resolve the ensuing conflicts and may have dissolved their marriages (and do not appear in our sample of married couples), other couples undoubtedly remain in marriages characterized by persistent conflict. Nevertheless, our findings on the timing of job losses warrant further study and replication as they are based on relatively small sample sizes.

It should be noted that the associations we identified represent averages across many types of families, and not all families will react in the same manner to an adverse life event such

as a job loss. Psychological research suggests two different moderator models involving life events that may be related to individual responses to stress. They include the "stress buffering model" and the "personal growth model of stress" (Cohen and Bradbury, 1997). The stress buffering model predicts that a moderator variable (such as positive marital communication or problem-solving skills) will reduce the harmful effects of stress such that symptoms (e.g., marital conflict) remain stable or increase only slightly. By contrast, the personal growth model focuses on how adjustment may be enhanced in response to stress. According to this model, adaptive behavior in the face of stressors can create an opportunity for psychological growth by stimulating better relationships with family members, personal resources, or coping skills. Thus, it may be the case that some families in our sample have specific coping resources and were able to stave off the ill effects of job loss on the marital relationship; for others, the relationship might even have improved in the face of job loss.

One moderating factor that we did explore was level of family income. Here, we found that the associations between job losses and marital conflict diminished as family income increased. A plausible explanation for this finding is that the economic stress resulting from job loss is lessened in families with higher incomes due to their likely higher levels of savings and assets. Higher-income job losers might also spend less time unemployed following a job loss, which could minimize family conflict. Additionally, lower-income families suffer a cascade of negative events when a job loss occurs (such as falling behind on rent and having to change residences or losing medical care), and it is this accumulation of negative events that precipitates marital conflict. Higher-income couples, by virtue of their greater economic resources, are perhaps better able to limit the scope of the job loss event.

An obvious limitation inherent in all non-experimental research, including ours, is determining causality. If the experience of job loss were a random act perpetrated by the market, it would be reasonable to interpret employment patterns as a reflection of the environment rather than of the individual's propensities. Therefore, we could be more confident that fathers' job losses had a causal impact on family conflict. Of course, the truth is that many of these fathers select into unemployment, possibly as a consequence of the same factors that ultimately predict their levels and types of family conflict. Anger management is undoubtedly a skill that improves job-holding and marital quality, and perhaps this is especially true for men. Ideally, we would have been able to control for one or more pre-existing measure of fathers' personality to rule out the possibility that a third variable is driving the associations between fathers' job losses and marital conflict. Unfortunately, the PSID contain no such measures. Our concerns on this issue are mitigated somewhat by the fact that very few of the job losses resulted from actual firings, and were instead a result of the arguably more exogenous events of lay-offs and plant closings. Nevertheless, one can always argue that individuals with certain tastes and propensities are more likely to select into declining industries or into occupations prone to layoffs. Future work in this area should seek ways to overcome these issues of selection bias, perhaps by finding plausible instruments for job losses.

At the same time, it bears reiterating that the measures of family conflict employed here capture the behavior of the marital dyad (and/or family system) and not the individual behavior of husbands and wives. We cannot be certain that fathers' adverse selection into job loss (to the extent that it exists) is driven by a shared underlying factor that selects men into marital conflict. It could well be that mild-mannered fathers' job losses spark angry reactions from their wives, which incites and fuels the marital conflict that both subsequently engage in and report. In this

case, the concerns about the "adverse selection" hypothesis we describe above do not necessarily apply. Nevertheless, as mentioned previously, the existing evidence does suggest that husbands are more likely to be distressed by adverse work and economic events compared to their wives, and they are more likely to engage in overt antisocial behavior toward others in response to stressful life conditions (Conger et al., 1993).

The particular question of the linkages between job loss and marital quality is an important one from a current policy perspective. The United States government promotes employment through a variety of policies, including the Earned Income Tax Credit, welfare work requirements, and worker retraining. At the same time, current government policy efforts are focused on strategies to promote marriage and increase marital stability (Ooms, 2005). If these policies are to be pursued simultaneously in the current economic climate, the U.S. government may need to do more to help couples face the challenges of involuntary job loss by recognizing and addressing the adverse impacts of these events on marital and family relationships.

References

- Bianchi, S. (2000). Maternal employment and time with children: Dramatic change or surprising continuity? *Demography*, *37*, 401-414.
- Boisjoly, J., Duncan, G., & Smeeding, T. (1998, April). The shifting incidence of involuntary job losses from 1968 to 1992. *Industrial Relations*, *37*, 207-231.
- Charles, K., & Stephens, M. (2004). Job displacement, disability, and divorce. *Journal of Labor Economics*, 22, 489-522.
- Charles, N., & James, E. (2005). 'He earns the bread and butter and I earn the cream': Job insecurity and the male breadwinner family in South Wales. *Work, Employment, and Society, 19*, 481-502.
- Cohen, C., & Bradbury, T. (1997). Negative life events, marital interaction, and the longitudinal course of newlywed marriage. *Journal of Personality and Social Psychology*, 73, 114-128.
- Conger, R., Rueter, M., & Elder, G. H. (1999). Couple resilience to economic pressure. *Journal of Personality and Social Psychology*, 76, 54-71.
- Conger, R. D., & Elder, G. (1994). Families in troubled times. New York: Aldine de Gruyter.
- Crompton, S., & Geran, L. (1995, Winter). Women as main wage-earners. *Perspectives*, 7(4) 26-29.
- Cummings, E. M., & Keller, P. S. (2007). How interparental conflict affects children. *Directions* in Mental Health Counseling, 17, 85-96.
- Duncan, G. J., & Hill M. S. (1985). Conceptions of longitudinal households: fertile or futile? *Journal of Economic and Social Measurement*, 13, 361–375.

- Farber, H. S. (1993). The incidence and costs of job loss: 1982-91. *Brookings Papers: Microeconomics 1993*, 73-119.
- Fitzgerald J., Gottschalk P., & Moffitt R. (1998). An analysis of sample attrition in panel data: the Michigan Panel Study of Income Dynamics. *Journal of Human Resources*, *33*, 155–184.
- Gerson, K. (1994). A few good men. The American Prospect, 5(16).
- Jacobson, L., LaLonde, R., & Sullivan, D. (1993). Earnings losses of displaced workers. *The American Economic Review*, 83, 685-709.
- Kalil, A., & Ziol-Guest, K. (2008). Parental job loss and children's academic progress in two-parent families. *Social Science Research*, *37*, 500-515.
- Kalil, A., Ziol-Guest, K., & Levin-Epstein, J. (2010). Non-standard work and marital instability: Evidence from the National Longitudinal Survey of Youth. Forthcoming, *Journal of Marriage and Family*.
- Kelvin, P., & Jarrett, J. E. (1985). *Unemployment: Its Social Psychological Effects*. London: Cambridge University Press.
- Kessler, R. C., Turner, J. B., & House, J. S. (1989). Unemployment, reemployment, and emotional functioning in a community sample. *American Sociological Review*, *54*, 648-657.
- Kessler, R. C., Turner, J. B., & House, J. S. (1988). Effects of unemployment on health in a community survey: Main, modifying, and mediating effects. *Journal of Social Issues*, 44, 69-85.
- Kessler, R. C., Turner, J. B., & House, J. S. (1987). Intervening processes in the relationship between unemployment and health. *Psychological Medicine*, *17*, 949-961.

- Mendenhall, R., Kalil, A., Spindel, L., & Hart, C. (2008). Job loss at mid-life: Managers and executives face the "New Risk Economy." *Social Forces*, 87, 185-210.
- Nomaguchi, K., Milkie, M., & Bianchi, S. (2005). Time strains and psychological well-being: Do dual-earner mothers and fathers differ? *Journal of Family Issues*, 26, 756-792.
- Ooms, T. (2005). *The New Kid on the Block: What is Marriage Education and Does it Work?*Washington, D.C.: Center for Law and Social Policy.
- Pleck, E., & Pleck, J. (1997). Fatherhood ideals in the United States: Historical dimensions. In M. E. Lamb (Ed)., *The role of the father in child development (pp. 33-48)*. New York: Wiley.
- Price, R. (1992). Psychosocial impact of job loss on individuals and families. *Current Directions in Psychological Science*, 1, 9-11.
- Rege, M., Telle, K., & Votruba, M. (2008). *Job loss and marital dissolution*. Unpublished manuscript, University of Stavanger, Norway.
- Rosenfield, S. (1992). The costs of sharing: Mothers' employment and fathers' mental health. *Journal of Health and Social Behavior*, 33, 213-225.
- Ruhm, C. (1991). Are workers permanently scarred by job displacements? *The American Economic Review*, 81(1): 319-324.
- Stephens Jr., M. (2001). The long-run consumption effects of earnings shocks. *The Review of Economics and Statistics*, 83, 28-36.
- Stephens Jr., M. (2002). Worker displacement and the added worker effect. *Journal of Labor Economics*, 20, 504-537.
- Winkler, A. (1998, April). Earnings of husbands and wives in dual-earner families. *Monthly Labor Review*, 42-48.

Yeung, W., & Hofferth, S. (1998). Family adaptations to income and job loss in the U.S.

Journal of Family and Economic Issues, 19, 255-283.

Table 1: Summary Statistics

		Father L		Mother L	OCG	
	Sample	No	Yes	No	Yes	Sample
Conflict scale	0.928	0.899	1.003	0.908	0.996	0.910
	(1.094)	(1.067)	(1.156)	(1.076)	(1.151)	(1.088)
Whether conflict	0.551	0.543	0.573	0.545	0.574	0.543
	(0.497)	(0.498)	(0.495)	(0.498)	(0.495)	(0.498)
High conflict	0.098	0.090	0.119	0.094	0.112	0.096
	(0.298)	(0.286)	(0.324)	(0.292)	(0.315)	(0.294)
Family argues	0.522	0.512	0.545	0.513	0.550	0.512
	(0.500)	(0.500)	(0.498)	(0.500)	(0.498)	(0.500)
Physical conflict	0.159	0.150	0.182	0.160	0.155	0.166
	(0.366)	(0.357)	(0.386)	(0.367)	(0.362)	(0.372)
Conflict scale OCG	0.822	0.789	0.907	0.794	0.920	0.826
	(1.010)	(0.978)	(1.086)	(0.994)	(1.061)	(1.015)
Whether conflict OCG	0.551	0.538	0.586	0.534	0.609	0.552
	(0.498)	(0.499)	(0.493)	(0.499)	(0.488)	(0.497)
High conflict OCG	0.074	0.067	0.092	0.072	0.080	0.075
	(0.261)	(0.249)	(0.290)	(0.259)	(0.271)	(0.264)
Family argues OCG	0.536	0.520	0.577	0.521	0.590	0.536
	(0.499)	(0.500)	(0.495)	(0.500)	(0.493)	(0.499)
Physical conflict OCG	0.102	0.095	0.120	0.100	0.110	0.104
	(0.303)	(0.294)	(0.325)	(0.300)	(0.313)	(0.306)
Father lost job	0.283	0.000	1.000	0.243	0.417	0.275
	(0.450)	(0.000)	(0.000)	(0.429)	(0.493)	(0.447)
Mother lost job	0.227	0.185	0.334	0.000	1.000	0.219
	(0.419)	(0.388)	(0.472)	(0.000)	(0.000)	(0.413)

Table 1: Summary Statistics (continued)

		Father Lost Job		Mother I	OCG	
	Sample	Yes	No	Yes	No	Sample
Father employed	0.935	0.952	0.893	0.939	0.923	0.943
	(0.246)	(0.215)	(0.309)	(0.240)	(0.266)	(0.232)
Mother employed	0.682	0.675	0.699	0.675	0.704	0.664
	(0.466)	(0.468)	(0.459)	(0.468)	(0.457)	(0.473)
Years married	12.909	11.654	16.093	12.316	14.929	11.695
	(7.320)	(7.159)	(6.739)	(7.461)	(6.427)	(7.219)
Father's age	40.659	40.169	41.902	40.500	41.202	39.205
	(7.805)	(7.841)	(7.579)	(8.037)	(6.937)	(7.696)
Mother's age	38.559	38.041	39.874	38.398	39.110	37.112
	(7.181)	(7.214)	(6.927)	(7.333)	(6.614)	(6.998)
Father has college degree	0.302	0.326	0.241	0.315	0.258	0.308
	(0.459)	(0.469)	(0.428)	(0.464)	(0.438)	(0.462)
Father has some college	0.629	0.629	0.630	0.617	0.670	0.641
	(0.483)	(0.483)	(0.483)	(0.486)	(0.471)	(0.480)
Father has high school degree	0.166	0.164	0.169	0.164	0.171	0.166
	(0.372)	(0.371)	(0.375)	(0.370)	(0.377)	(0.372)
Mother has college degree	0.264	0.287	0.203	0.278	0.214	0.263
	(0.441)	(0.453)	(0.403)	(0.448)	(0.410)	(0.440)
Mother has some college	0.624	0.619	0.636	0.624	0.621	0.617
	(0.485)	(0.486)	(0.482)	(0.484)	(0.485)	(0.486)
Mother has high school						
degree	0.179	0.169	0.202	0.169	0.213	0.188
	(0.383)	(0.375)	(0.402)	(0.374)	(0.409)	(0.391)
Number of kids	2.083	2.085	2.077	2.088	2.066	2.094
	(0.974)	(0.975)	(0.973)	(0.986)	(0.935)	(0.924)
Age of oldest child	12.244	11.676	13.688	11.950	13.246	10.884
	(5.626)	(5.705)	(5.149)	(5.712)	(5.203)	(5.580)
Age of youngest child	7.780	7.353	8.862	7.528	8.635	6.686
	(4.779)	(4.786)	(4.591)	(4.785)	(4.662)	(4.479)
Family income (\$10K)	9.280	9.454	8.837	9.516	8.476	8.890
•	(9.586)	(9.074)	(10.768)	(10.122)	(7.427)	(9.673)
Year=1997	0.339	0.350	0.313	0.349	0.307	0.454
•	(0.474)	(0.477)	(0.464)	(0.477)	(0.461)	(0.498)
Year=2001	0.394	0.390	0.404	0.394	0.393	0.546
•	(0.489)	(0.488)	(0.491)	(0.489)	(0.489)	(0.498)
Year=2007	0.266	0.260	0.284	0.257	0.300	0.000
	(0.442)	(0.439)	(0.451)	(0.437)	(0.459)	(0.000)
Sample size	2790	2015	775	2120	670	1766

Table 2: Conflict Scale (0-5) Regression Results

		r Report Conflic		Father Report Conflict Scale				
	(1)	(2)	(3)	(1)	(2)	(3)		
Father lost job	0.057	0.056	0.169**	0.059	0.061	0.118		
tutilet lost jos	(0.064)	(0.064)	(0.078)	(0.069)	(0.069)	(0.090)		
Mother lost job	0.046	0.044	0.044	0.107	0.111	0.076		
Wiether lost job	(0.069)	(0.069)	(0.094)	(0.070)	(0.070)	(0.105)		
Family income	(0.005)	-0.002	0.003	(0.070)	0.003	0.006		
ranny meome	•	(0.002)	(0.003)	•	(0.003)	(0.005)		
Father lost job*Income	•	(0.002)	-0.012**	•	(0.003)	-0.006		
rather lost job income	•	•	(0.004)	•	•	(0.006)		
Mother lost job*Income	•	•	-0.000	•	•	0.004		
Wother lost job income	•	•	(0.007)	•	•	(0.008)		
Eather employed	-0.067	-0.066	-0.052	-0.099	-0.102	-0.094		
Father employed		(0.115)						
Mother employed	(0.115) 0.107**	(0.115) 0.106**	(0.116) 0.096*	(0.158) 0.129**	(0.159) 0.130**	(0.159)		
Mother employed						0.124**		
Vacus manusiad	(0.054)	(0.054)	(0.054)	(0.058)	(0.058)	(0.058)		
Years married	-0.002	-0.002	-0.002	0.001	0.001	0.001		
Eath and a are	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)		
Father's age	0.013*	0.013*	0.013*	0.008	0.008	0.008		
A della de de de	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)		
Mother's age	-0.010	-0.009	-0.009	-0.013	-0.014	-0.014		
	(0.008)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)		
Number of kids	0.236**	0.236**	0.236**	0.072*	0.072*	0.072*		
	(0.034)	(0.034)	(0.035)	(0.040)	(0.040)	(0.040)		
Age of oldest child	0.006	0.006	0.006	0.014	0.015	0.015		
	(0.008)	(0.008)	(0.008)	(0.011)	(0.011)	(0.011)		
Age of youngest child	0.021**	0.022**	0.022**	0.004	0.003	0.004		
•	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)	(0.012)		
Father has high school degree	0.068	0.069	0.072	0.051	0.047	0.050		
•	(0.105)	(0.105)	(0.105)	(0.107)	(0.107)	(0.107)		
Father has some college	0.179**	0.182**	0.182**	0.068	0.063	0.063		
•	(0.086)	(0.087)	(0.087)	(0.092)	(0.092)	(0.092)		
Father has college degree	-0.193**	-0.189**	-0.191**	-0.067	-0.075	-0.078		
•	(0.081)	(0.081)	(0.081)	(0.082)	(0.083)	(0.083)		
Mother has high school degree	0.093	0.093	0.091	0.034	0.033	0.033		
•	(0.104)	(0.104)	(0.104)	(0.107)	(0.106)	(0.107)		
Mother has some college	-0.007	-0.005	-0.008	0.131	0.126	0.125		
	(0.088)	(0.088)	(0.088)	(0.096)	(0.096)	(0.096)		
Mother has college degree	0.117	0.124	0.122	-0.064	-0.078	-0.082		
•	(0.081)	(0.082)	(0.082)	(0.083)	(0.083)	(0.083)		
Constant	0.152	0.150	0.113	0.867**	0.876**	0.868**		
	(0.231)	(0.231)	(0.233)	(0.277)	(0.277)	(0.278)		
R-squared	0.063	0.064	0.066	0.108	0.109	0.110		
Sample size	2788	2788	2788	1765	1765	1765		
Mean of dependent variable	0.928	0.928	0.928	0.826	0.826	0.826		

Table 3a: Level and Type of Conflict Indicators – Mothers' Reports

	ļ	Any				Conflict es, Fights,	Physica	ıl Conflict
	Conflict		High Conflict (Scale=3,4,5)		No Discussion)		(Hits, Throws Things)	
	(0)	+INC	(0)	+INC	(0)	+INC	(0)	+INC
Father lost job	0.012	0.057*	0.022	0.090**	0.008	0.037	0.024	0.125**
	(0.647)	(0.092)	(0.143)	(0.001)	(0.748)	(0.280)	(0.193)	(0.000)
Mother lost job	0.014	0.031	0.011	0.002	0.020	0.027	-0.015	-0.026
	(0.592)	(0.427)	(0.489)	(0.937)	(0.442)	(0.487)	(0.433)	(0.384)
Father lost job*Income	•	-0.005**		-0.008**	•	-0.003	•	-0.012**
	•	(0.048)	•	(0.004)	•	(0.211)	•	(0.001)
Mother lost job*Income	•	-0.002	•	0.001	•	-0.001	•	0.001
	•	(0.550)	•	(0.737)	•	(0.796)	•	(0.728)
Family income	0.002	0.004**	-0.002*	-0.001	0.001	0.002	-0.000	0.001
	(0.219)	(0.030)	(0.057)	(0.358)	(0.620)	(0.289)	(0.794)	(0.485)
P-value: test of controls	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sample size	2,788	2,788	2,788	2,788	2,788	2,788	2,788	2,788
Correct predictions	0.59	0.60	0.90	0.90	0.59	0.59	0.84	0.84
Mean of dependent variable	0.551	0.551	0.098	0.098	0.522	0.522	0.159	0.159

Table 3b: Level and Type of Conflict Indicators – Fathers' Reports

	14516 5	Di Ectel ana	1700010011111	ice inalcators	rathers ne	P 0 1 1 2			
					Verbal Conflict				
	Ar	ny			(Criticizes, Fights,			Physical Conflict	
	Conflict		High Conflict (Scale=3,4,5)		No Discussion)		(Hits, Throws Things)		
	(0)	+INC	(0)	+INC	(0)	+INC	(0)	+INC	
Father lost job	0.005	0.011	0.026	0.057*	0.015	0.027	0.009	0.067*	
	(0.878)	(0.805)	(0.132)	(0.061)	(0.647)	(0.534)	(0.637)	(0.061)	
Mother lost job	0.058*	0.022	0.012	0.090**	0.049	0.003	0.007	0.026	
	(0.086)	(0.659)	(0.482)	(0.017)	(0.149)	(0.960)	(0.698)	(0.426)	
Father lost job*Income		-0.000		-0.004		-0.001		-0.008**	
		(0.877)	•	(0.188)		(0.718)		(0.035)	
Mother lost job*Income		0.004	•	-0.010**		0.006		-0.003	
		(0.321)		(0.014)		(0.220)		(0.422)	
Family income	0.000	0.000	0.001**	0.002**	0.001	0.001	0.000	0.001	
	(0.777)	(0.934)	(0.023)	(0.003)	(0.598)	(0.737)	(0.714)	(0.136)	
P-value: test of controls	0.023	0.026	0.002	0.009	0.047	0.051	0.003	0.008	
Sample size	1,716	1,716	1,716	1,716	1,716	1,716	1,716	1,716	
Correct predictions Mean of dependent	0.59	0.59	0.93	0.93	0.57	0.57	0.90	0.90	
variable	0.551	0.551	0.074	0.074	0.536	0.536	0.102	0.102	