Non-Standard Work and Marital Instability:
Evidence from the National Longitudinal Survey of Youth

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Abstract

The links between newly-married adult employment patterns and marital instability in the first seven years after the marriage was investigated using current data from a sample of 1,657 newlywed couples from the National Longitudinal Survey of Youth (NLSY). On average, the key dimension of husbands' and wives' employment that predicts marital stability is being without work (relative to being employed at a regular daytime job), although among husbands in couples without children, nonstandard work is also associated with marital instability. Among couples with children, fathers' lack of work predicts marital instability; whereas in such couples mothers' lack of work, as well as her participation in non-standard work are associated with marital instability.

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The "traditional" work schedule for an American employee is 9:00 am to 5:00 pm. However, the transformation of jobs to serve the needs of a 24-7 economy will have potentially far-reaching effects on work, workers, and their families. The 2004 Current Population Survey (CPS) revealed that substantial proportions of workers' schedules do not fit a regular daytime pattern. Among all workers, 17.7% usually worked alternate shifts that fell at least partially outside the daytime shift range (McMenamin, 2007). Among employed women with children, 12% did so (Connelly & Kimmel, 2007). In dual-earner households, 27.8% include at least one spouse who works a schedule other than a regular fixed daytime schedule (Presser, 2003).

Workers and their families may be affected in a variety of ways by non-standard work schedules. A small set of studies that have looked at the effects of nonstandard work indicate that it imposes a stress on the family system by reducing contact among family members. This lack of contact can make it difficult to schedule and carry out family activities, which eventually leads to lower levels of marital happiness, higher levels of conflict, and poorer family adjustment (Staines & Pleck, 1983, White & Keith, 1990; Bohle & Tilley, 1998; Presser, 2000; Grosswald, 2004). The physiological (physical fatigue, sleep problems) and social stresses of working during the evening or night or the instability of working a rotating shift may compound these stresses (Caruso, et al., 2004). Parents' nonstandard work may also affect the division of labor and childcare in the household (Han, 2004); to the extent that an assumption of new roles is unwelcome or perceived as aberrant, this too could decrease marital satisfaction, stress relationships, and eventually lead to separation and divorce.

A more recent set of studies of nonstandard work and family life assesses impacts on parent-child interactions and child development. These studies, similarly, provide suggestive

evidence that parental nonstandard work is associated with poor developmental outcomes for children (Han, 2004; 2005; Han & Waldfogel, 2007), in part by increasing parental stress and also reducing parent-child engagement and interaction (Wight, Raley, & Bianchi, 2007).

People work nonstandard shifts for varying reasons. Some may choose to work alternate shifts because the employer offers higher wages for doing so. Working nonstandard hours may also be preferable for some parents to the extent that they can rely on "split-shift" parenting with another caregiver and avoid the need for non-parental child care (Presser, 1989). The 2004 CPS gathered information on the main reason for working alternate shifts. Among all shift workers, 48% said it was in "the nature of the job," 15% said it "allowed time for school," 10% said it was a "personal preference," 8% said it allowed for "better arrangements for family or childcare," 7% said it was because they "could not get any other job," 5% said it was for "better pay," and 5% reported some other reason (McMenanim, 2007). Regardless of the reason for working alternative shifts, such work conditions may be linked to important aspects of family life but in potentially different ways for different types of families.

The particular question of the linkages between employment experiences and marital instability 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). However, to the extent that increased employment is associated with an increased share of workers employed during non-standard hours in the present-day economy, these policy efforts may be working at cross-purposes if non-standard employment increases marital instability. If this is the case, and if these policies are to be pursued simultaneously, the U.S. government may

need to do more to help employees balance work and family by recognizing and addressing the potential problems of nonstandard work for family life.

The seminal article on the topic of nonstandard work and marital instability is Presser (2000), who employed rigorous quantitative methods with high quality data from a national longitudinal sample. In that paper, Presser's characterization of the existing quantitative evidence on nonstandard work and marital instability was that it was "sparse" and she cites evidence from only two other quantitative studies on nonstandard work and marital instability, both of which were conducted in the 1980's. Somewhat surprisingly, this question has lain dormant in the intervening years, and the data Presser relied upon are now almost 20 years old. This question bears re-examination with contemporary data. Because we aim to replicate and extend Presser's work on this topic, it is worth describing her important paper in some detail.

Presser relied on longitudinal data from 3,476 married couples in the National Survey of Families and Households, a representative survey of all American families conducted in two waves (1987-88 (wave 1) and 1992-94 (wave 2)). Her analysis of marital instability (i.e., separation or divorce) predicted whether or not marriages that were intact in 1987-88 had dissolved by 1992-94 as a consequence of wives' or husbands' engagement in nonstandard work in the baseline year. Her multivariate models employed a basic set of exogenous controls including spouses' age and education, number of marriages, presence of children, cohabitation prior to the marriage, and, in some cases gender ideology. Presser divided her sample into those couples with and without children; she also examined the moderating role of marital duration.

The main finding from Presser's study is that nonstandard work increased the risk of divorce, but only for couples with children, and only when fathers or mothers worked the night or rotating shift (but not the evening shift or on weekends). For fathers, the association was only

present in young marriages (married less than 5 years), whereas for mothers the association was only present for marriages that were older than 5 years at baseline.

Our paper provides an updated examination of the associations between husbands' and wives' (and mothers' and fathers') non-standard work and marital stability using newer data than has been used heretofore to address this question. Doing so will provide insights into the potential impacts of non-standard work among contemporary American couples, many of whom will be exposed to work that occurs outside the typical daytime schedule.

Besides relying on more contemporary data, our analytic approach differs from Presser's in several ways, which may provide new insights into this important question. First, whereas Presser characterized nonstandard work at a single point in time (during one reference week at the time of the survey) to predict separation or divorce five years hence, we observe couples from the first year of their marriage until the 8th year (or as long as the marriage lasts in the first seven years for couples who will divorce by that time) and assess spouses' work experience in each year of the marriage. Given the likely volatility in exposure to nonstandard work arrangements, this characterization provides a better picture of the extent or severity of exposure to nonstandard work within families.

Second, whereas Presser relied on a sample of married couples whose age and current duration of marriage varied widely, we rely on a sample of newlyweds within a much narrower age range whom we follow forward for seven years (or until their marriage dissolves). Presser did control for the duration of the marriage in her multivariate analysis and she also tested associations in subgroups defined by duration of marriage greater and less than 5 years. However, this approach cannot correct for the potential selection problem of including those with longer-standing marriages (which are less likely to dissolve than marriages of short duration) in

the sample. Many marriages will break up within the first few years, and nonstandard work schedules may be more disruptive in the early years than in the later years of marriage. It is thus not clear whether couples in only their first or second year of marriage should be combined with those in their 5th year of marriage.

Presser's treatment of the role of non-employment is also limited to a snapshot measure. We fully characterize non-employment over the length of the marriage, thus allowing insights into the potentially deleterious impacts of nonstandard work versus no work at all on marital instability. Given that questions of "family-friendly work" are an important part of public policy discussions (Levin-Epstein, 2006), as is the question of enhancing marital quality and stability (Ooms, 2005), it is important to identify specifically which aspects of employment within families confer risks or provide support for marital stability. This can inform whether limited resources need to be directed at mitigating the prevalence and consequences of non-work, nonstandard work, or both.

Finally, Presser relied (as we do) on observational data, which are always threatened by selection bias, or the notion that unobserved factors predict participation in nonstandard work as well as predict the likelihood of divorce. For example, non-standard work is more common among those with less education (McMenamin, 2007), and low education is also a risk factor for divorce (Teachman, 2002). Any analysis should therefore control for education to rule out that an observed correlation between nonstandard work and divorce is not in fact due to this third factor. In addition to controlling for a similar set of observable characteristics that Presser does that may affect non-standard work participation as well as divorce, we control for a factor that her analysis did not; namely, husbands' and wives' scores on a test of basic cognitive skills (the Armed Forces Qualifying Test; AFQT). Although not a panacea for the problem of selection on

unobservables, many economists and sociologists using these data have relied on the AFQT as a proxy for a range of unobservable skills and abilities (Neal & Johnson, 1996).

Method

Sample

Data for this paper are drawn from the National Longitudinal Survey of Youth 1979 (NLSY79). The NLSY79 is a nationally representative sample of 12,686 youth (6,283 females and 6,403 males) aged fourteen to twenty-two years old in 1979 (Hispanic, Black, and low-income youth were oversampled). The primary research focus of the NLSY79 is labor force behavior, but a range of other important demographic and behavioral information is also collected. These youth were reinterviewed every year until 1994 and biennially since 1994.

The analysis sample consists of adult male and female respondents who married (for either the first or second time) between 1989 and 1997. We follow these respondents for seven years (between 1996 and 2004) or until their marriage dissolves. Due to the change in administration of the NLSY (namely; the switch from an annual to a biennial survey after 1994), we use as much information as is available on each respondent from the year they marry and for each respondent's subsequent individual marriage window (up to seven years). For example, those who married in 1989 are observed in 1990, 1991, 1992, 1993, 1994, and 1996. Some of these marriages lasted until 1997 whereas others dissolved within the first seven years. For those individuals who married twice between 1989 and 1997 only their first marriage is included. Marriages that were reported to begin and end in the same calendar year are also not included in the analysis sample.

NSLY respondents are either the husband or the wife in the marriage. Respondents report on their own characteristics as well as some of the characteristics of their spouses. Therefore the sample of analysis is marriages as reported by either the husband or the wife.

Marital duration

Two dimensions of marriage are assessed: marital dissolution within the first seven years after the marriage and the length of the marriage in years. In each survey wave, respondents are asked in what year their marriage ended, and from this information as well as the year the marriage began, a dichotomous variable was created that represents whether the marriage ended within the seven-year time period studied. Second, we created a continuous measure of the length of the marriage in years. For those who divorce this value ranges from one year to seven years, and for those who stay married the entire window, their length of marriage is top-coded at eight years.

Independent Variables

Employment patterns. NLSY respondents reported on the shift they worked in their current or the most recent job they held as well as the shift worked in their spouse's most recent job. The following options were available for those who worked: regular daytime shift, regular evening shift, regular night shift, shift rotates (changes periodically from days to evenings), split shift (consists of two distinct periods each day), or irregular schedule or hours. We created four mutually exclusive variables that represent the employment experience of the husband and four mutually exclusive variables that represent the employment experience of the wife during the majority of the marriage (defined here as greater than 50% of the marriage): 1) spent the majority of the marriage employed in a regular daytime shift; 2) spent the majority of the marriage not working (here it is not possible to differentiate between unemployed and out of the labor force

due to small sample sizes); 3) spent the majority of the marriage in non-standard work (including either regular evening shift, regular night shift, rotating shift, split shift, or irregular hours; small sample sizes preclude our differentiating these groups), and 4) those who are not classifiable in one of the first three groups (i.e., they did not spend the majority their marriage in any of these three types of experiences). The latter group thus represents a mixture of different types of employment experiences over the course of the individual's marriage.

Control variables: demographic characteristics. We controlled for several demographic characteristics of the respondent including sex, race, education, and cognitive ability. Sex of the respondent was measured as a dichotomous variable (coded 1 if *male* 0 if *female*); race/ethnicity of the respondent was coded as White (the reference group), Black, and Hispanic; and years of completed education of the respondent in the year of marriage are included. Respondents are not asked race/ethnicity and education in the year of marriage about the spouse. Respondent cognitive ability was measured with the Armed Forces Qualification Test (AFQT) percentile score. The AFQT, a measure of basic skills, or human capital, attained (Neal & Johnson, 1996), and which was administered to NLSY sample members in 1980, assesses paragraph comprehension, arithmetic reasoning, word knowledge, and mathematics knowledge. We also included measures of both the husband's and wife's age at the time of the marriage.

Control variables: marital and household characteristics. We controlled for several characteristics of the marriage including dichotomous variables (all coded "1" if yes and "0" if no) indicating that this marriage was the respondent's first marriage, that a birth occurred during this marriage, and that the respondent and his or her spouse lived together prior to the marriage. Finally, we included a measure capturing the household-level income to needs ratio in the year the marriage occurred.

Regression Analyses

Multivariate regression analyses are conducted predicting the two dimensions of marital duration. Two different regression techniques are adopted reflecting the different nature of the outcome variable. Logistic regression analysis is conducted for the dichotomous measure of divorce within the 7-year observation window. Tobit regression analysis is conducted for the analysis of length of the marriage. Tobit analysis is appropriate for this outcome as some of the marriages that we do not observe dissolving might end the day after the interview; others will last many more years. Because this outcome is unknown, we rely on Tobit analysis because it takes this "censoring" into consideration in the modeling. Each of these regressions is run on the total sample, as well as the sub-samples of those marriages into which children are born versus those marriages that do not produce children.

Results

Sample Description

Table 1 presents the overall means (or percentages) and standard deviations of all variables in the analysis for the total sample as well as for those who do and do not divorce within the seven-year period. On average half of the sample respondents are men. Husbands are on average 32 years old at marriage and wives are on average 30 years old at that time. The majority of the respondents are White, a quarter is Black, and 16 percent is Hispanic. The average respondent has over 13 years of education at the time of the marriage, and placed in the 44^{th} percentile in AFQT. Education (F test = 31.76, $p < .001$) and also AFQT scores (F test =14.03, $p < .001$) are lower among those who divorce compared to those who do not.

The majority of the marriages in this sample are first marriages for the respondent (61 percent) and just over half produced children (52 percent). Those respondents who eventually

divorce are much less likely to be in their first marriage (Chi square = 45.69, $p < .001$) and also less likely to have children during the marriage (Chi square = 66.49, $p < .001$) compared to those who do not divorce. Further, a majority of these couples lived together before they married, with those who eventually divorce more likely to have cohabited prior to the marriage (Chi square = 5.66, $p < .05$) than those who do not divorce. On average in the year of the marriage household income-to-needs was almost 5.0; nevertheless, eight percent of the sample was poor (income to needs less than one) and an additional 17 percent had income-to-needs ratios between one and two (data not shown). Those who eventually divorce had lower income to needs ratios in the year of marriage (F test = 10.25, $p < .01$) compared to those who did not divorce.

With respect to work experiences, 63 percent of husbands spent the majority of their marriage working a regular daytime shift and eight percent spent the majority of the marriage not working. Almost one quarter of the husbands (22 percent) spent the majority of the marriage working non-standard shifts. Only a small share (7 percent) of husbands could not be classified in of these three primary groups. Similarly, the majority of wives (54 percent) spent most of the marriage working a regular daytime shift, although a larger sample (compared to husbands; 20 percent) spent the majority of the marriage not working. Fifteen percent of wives spent the majority of the marriage working non-standard shifts.

Marital Instability. Eighteen percent of the marriages that started between 1989 and 1997 ended in divorce within the first seven years. This figure is fairly similar to the figure of 20.7% reported in Presser (2000) for couples in the early years of marriage who were given about a 5-6 year window to divorce (Presser also included separations in her measure of marital instability). On average the length of marriage for those marriages that ended in divorce was less

than four years (3.87 years), and 27 percent of the marriages that ended in divorce did so within the first two years (data not shown).

Regression Analysis

Divorce. Table 2 presents the logistic regression results for whether or not the marriage ended in divorce within the seven year period. The table reports the logit coefficient, standard error, and odds ratios for the analysis on the total sample, the sample that had children together during the marriage, and finally for the sample that did not have children together during the marriage. Findings from the total sample suggest that couples with older wives are less likely to divorce, whereas Black respondents are more likely than White respondents to divorce. Other marital characteristics have an important association with the likelihood of divorce. Specifically, first marriages and those in which children are born are less likely to dissolve within seven years, whereas those couples who lived together prior to marriage are more likely to divorce.

In the total sample, husbands' and wives' employment patterns during the marriage are also significantly associated with divorce. Compared to families in which husbands spent the majority of their marriage working a regular daytime shift (the omitted group), those families in which husbands spend the majority of time in any of the other three categories (not employed, nonstandard work, or a combination of work experiences; i.e., the "not elsewhere classified group) were more likely to divorce. Compared to families in which wives spend the majority of the marriage working a regular daytime shift, those families in which wives were mostly not employed or spent most of the time in a combination of work experiences were more likely to divorce.

To get a better sense of the magnitude of these differences, we calculated predicted probabilities designed to hold the covariates constant and vary the employment patterns. The

continuous measures were coded with the mean values and the dichotomous variables were coded 1 if the majority of the sample had that characteristic and 0 if they did not. When examining the impact of husband's employment patterns, wives' employment patterns are held at "regular daytime shift." Similarly, when calculating the predicted probabilities of divorce as a function of wives' employment patterns, husbands' patterns are held at "regular daytime shift."

These analyses yield the following results: In the total sample, the share of marriages that ends in divorce when husbands spend the majority of the marriage employed in a regular daytime shift is .037, whereas the corresponding figure for those marriages in which husbands spend the majority of the marriage not working is .102. The share of marriages that ends in divorce when a husband spends the majority of the marriage in non-standard work or in a combination of experiences is .064 and .086 respectively. In contrast, the share of marriages that ends in divorce when wives spend the majority of the marriage not working is .078, whereas the corresponding figures are 052 and .069 in families in which wives spend the majority of the marriage in nonstandard work or in a combination of experiences, respectively.

Next, we examine results in the subsample that had children within the marriage. In this sample, Blacks are more likely than Whites to divorce and those with higher levels of education are less likely to divorce. Similar to the total sample analysis, first marriages are less likely to dissolve within seven years compared to second marriages. Here, however, we see some differences with respect to husbands' and wives' employment patterns compared to the total sample results. Specifically, compared to those families in which fathers spend the majority of the marriage employed in a regular daytime shift, only marriages in which fathers spend the majority of time not working are more likely to divorce. In this case, the odds of divorce are

almost three and one half times as high compared to the risk of divorce in those families in which fathers spend the majority of the marriage employed in a regular daytime shift.

With respect to mothers' experiences, compared to those families in which mothers spend the majority of the marriage employed in a regular daytime shift, those families in which mothers spend the majority of the marriage either not working or working nonstandard hours are more likely to divorce. In both of these cases, the odds of divorce are about two times as high compared to the risk of divorce in those families in which mothers spend the majority of the marriage employed in a regular daytime shift.

We again computed predicted probabilities of divorce for the different employment patterns in the sample of newlyweds who have children within the marriage. Here, the share of marriages that ends in divorce among families in which fathers spend the majority of the marriage employed in a regular daytime shift is .028, with similar figures of .030 and .023 for those marriages in which fathers spend the majority of the marriage in nonstandard work or in a combination of experiences respectively. However, the corresponding figure for families in which fathers spend the majority of the marriage not working is .090. In contrast, the share of marriages that ends in divorce among families in which mothers spend the majority of the marriage not working is .058. The corresponding figures for families in which mothers spend the majority of the marriage in nonstandard work or in a combination of experiences is .062 and .037, respectively.

Finally, we examine results in the subsample that did not have children within the marriage. In this subsample, Hispanic respondents were less likely to divorce compared to their White counterparts. Similar to the total sample and sample with children, first marriages were less likely to break up within seven years compared to second marriages. Also similar to the

findings in the total sample analysis, compared to couples in which husbands spend the majority of the marriage in a regular daytime shift, marriages in which husbands experience any of the other employment patterns were more likely to divorce (the coefficients on these three comparison groups are statistically indistinguishable from one another). The patterns for wives' employment experiences also mirrored the total-sample analysis, with marriages in which wives spent the majority of the marriage not working or having a combination of employment experiences experiencing an increased risk of divorce compared to couples in which wives mostly worked a regular daytime shift.

Finally, we compute the predicted probabilities of divorce for this sample of couples who do not have children within the marriage. The share of couples that divorces among those households in which the husband (and wife) mostly work regular daytime shifts is .125. This figure is the same among households in which husbands spend the majority of the marriage in a combination of experiences. However, the share of couples that divorces is substantially higher in those households in which husbands spend the majority of the marriage not working (.301) or in non-standard work (.237). Among childless households in which wives spend the majority of the marriage in non-standard work, the share that divorces is .136; whereas these figures are .245 and .253 for those who spend the majority of the marriage not working or in a combination of experiences, respectively.

Length of marriage. Table 3 presents the Tobit regression results for the length of the marriage for the total sample, the sample that had children within the marriage, and the sample that did not have children within the marriage. The findings mirror those found in the logit analyses of whether the couple divorces. Namely, compared to White respondents, Black respondents have shorter marriages, and first marriages and marriages into which a child was

born are longer. In the total sample, marriages are shorter when husbands spend the majority of the marriage not working, working nonstandard hours, or in some other combination of work experiences compared to marriages in which husbands spend the majority of the marriage employed in a regular daytime shift. Similarly, compared to marriages in which wives spend the majority of the marriage employed in a regular daytime shift, those marriages in which wives are not employed, work nonstandard hours, or have some other combination of work experiences are shorter.

Here again, the sample of marriages within which children were born illustrates some differences in husband and wife employment patterns. In the sample of marriages that produce children, compared to families in which fathers worked regular daytime shifts, those marriages in which fathers spent the majority of the marriage not working are shorter. Marriages in which mothers spent the majority of the marriage not working or engaged in nonstandard work are also shorter than marriages in which wives spent the majority of time working in a regular daytime shift.

Finally, analysis of the sample of marriages that did not produce children illustrate that compared to those marriages in which husbands spent the majority of time employed in a regular shift, marriages in which husbands spent most of the time in any of the other three types of employment were shorter. Compared to marriages in which wives spent the majority of the marriage employed at a regular daytime shift, those marriages in which wives spent the majority of their marriage not working or in a combination of employment experiences were shorter.

Discussion

The issue of nonstandard work schedules needs to be part of a public debate that is engaged with helping society and policy makers better understand the challenges faced by

working families. One of these challenges is the difficulty in balancing work and family life when one or both spouses, many of whom are parents, routinely work outside the traditional daytime hours. Almost 10 years ago, Harriet Presser wrote "there is almost no rigorous research on the relationship between nonstandard work schedules and marital instability" (Presser, 2000, p. 96). The state of research on this question has, surprisingly, changed little since that time. Accordingly, the present paper investigated the role of nonstandard work in predicting marital instability, using contemporary data from a sample of newlyweds in a national longitudinal data set and taking as its starting point the key work by Presser (2000).

Our results both replicate and extend Presser's findings. First, our results support Presser's hypothesis that employment at nonstandard times (as compared to employment during daytime hours) increases the likelihood of marital disruption, particularly when it is the wife who works nonstandard hours. We found this to be true for the sample of couples with children (whereas, in contrast, it is husbands' nonstandard work that is associated with marital disruption in couples without children).

Presser hypothesized that when children are present and mothers are working nonstandard hours, many husbands will be taking responsibility for preparing dinner for their children as well as themselves as well as bathing the children and conducting their bedtime routines. Presser contends that because these caregiving activities are not yet strongly socialized among men, many will find them stressful or undesirable, thus increasing the risk of marital disruption.

In support of this contention, Han's (2004) study of families with infants and toddlers found that fathers are more likely to serve as the primary childcare provider when mothers work nonstandard schedules. As well, several studies have found correlations between the amount and

type of household tasks performed and psychological well-being for men, but not for women (Rosenfield, 1992;). In particular, for men, doing "female-typed" tasks at home (cooking, cleaning, child care) have been linked to more negative mental health, such as depression and low self-efficacy (Ziol-Guest & Kalil, 2006). These mental health factors could also destabilize marriages.

In our sample of couples without children, we found that husbands', but not wives' nonstandard work was a significant predictor of marital instability. This association was not identified in Presser's analysis of couples without children; one reason may be our exclusive focus on newlyweds in the present sample. Nonstandard work among newlyweds who have yet to have children may diminish the pleasurable shared time that Hill (1988) called "marriage-specific capital" that is necessary for forming the strong bonds that solidify a marriage. If this were the case, however, it is not clear why husbands', but not wives', nonstandard work would predict divorce among such couples. The reason may lie in the different specific types of nonstandard work in which husbands and wives are engaged; perhaps husbands' nonstandard work takes more of a physical toll that is taxing to the relationship. This is a necessarily speculative conjecture and bears replicating and deeper analysis in future work.

Thus, taking these two findings together, we conclude from our study that nonstandard work schedules can be disruptive of marriage for all couples – those with and without children. In our study, the risk of divorce for mothers' nonstandard work was similar in degree to the risk of divorce for (childless) husbands' nonstandard work (i.e., the odds ratios in these two analyses were not statistically different from one another). This contrasts with Presser, who found that nonstandard work schedules are more disruptive of marriage when couples have children than when they do not have children.

Although not the primary focus of our study, our analytic strategy allowed us to assess the role of newly-married husbands' and wives' (and mothers' and fathers') non-work during the marriage as a predictor of marital instability. In this case, across all four cells of interest, husbands' and wives' (with and without children) non-work was a significant correlate of divorce and marriage duration. However, the size of the association for husbands (whether or not they were fathers) was about 50% larger than the size of the association for wives (whether or not they were mothers). As well, the effect within gender did not vary substantially by presence of children. These findings also contrast with Presser's (2000), who included a dummy variable for "not employed" during the reference week of her baseline survey but never found this variable to be significant in regressions. The lack of associations in her study may be a function of the limitations of such a snapshot measure for a phenomenon as volatile as non-work status. It is likely that our multi-year measure better captures the true extent and effects of non-work among contemporary couples.

These findings suggest, first, that work is in general an important determinant of marital stability. This is perhaps especially true among contemporary American families, which have, in historical perspective, seen a remarkable increase in the labor force participation of women and especially women with children (Han, Waldfogel, Ruhm, & Washbrook, 2008).

These findings are also consistent with role theories, in which the husband's attractiveness declines if he fails to fulfill his traditional role as breadwinner (Charles & James, 2005; Gerson, 1994; Nomaguchi et al., 2005; Rosenfield, 1992) and that it is more stressful upon marriages when men are out of work than when women are. The findings are highly consistent with recent survey research showing a strong negative impact of husbands' (but not wives') job loss on marital dissolution (Rege, Telle, & Votruba, 2007; Charles & Stephens, 2004). One

possibility is that, because husbands are more often primary earners, it is a greater financial strain when they are out of work, which raises the risk of divorce accordingly (Rege et al., 2007). Alternatively, it may be that wives and mothers who experience periods of nonwork more seamlessly substitute the role of household manager and caregiver during these periods. In contrast, it may be far less normative for fathers to transition to this role and this may stress marriages. Indeed, Brines (1994) found that long-term unemployed men who were economically dependent on their wives engaged in fewer hours of housework than did fully-employed men; Brines argued that this was due to men's need to retain their sense of masculinity. In other words, it is possible that mothers' time during a separation from employment is more productively spent in household management and investing in children, thereby dampening any potential adverse effects of nonwork.

The lesser size of the associations between women's non-work and marital instability could also be related to gender differences in feelings of time strain. Nomaguchi et al. (2005) found that feelings of time deficits with children and spouse are associated with lower psychological well-being only for mothers. This is perhaps because of cultural expectations about the amount of time that mothers should spend with family members. Thus, it is possible that although periods of non-work have some negative effects for wives and mothers, they might also provide some relief from time strain for working mothers, thereby dampening the negative psychological impact and resultant marital stress.

Limitations

The limitations of this study warrant mention. First, an obvious problem inherent in non-experimental research is determining causality. This limitation applies to the present study as well. If the experience of nonstandard work was a random act perpetrated by the market then it

would be reasonable to interpret employment patterns as a reflection of the environment rather than of the individual's tastes and propensities. Of course the truth is that many of these husbands and wives select into nonstandard work arrangements, possibly as a consequence of the same factors that ultimately predict their divorce. Two existing findings counter this contention, however, and might lend us more faith in taking our estimates as causal. First, Presser (2000) found no evidence that spouses who enter into nonstandard work arrangements are in marriages of lower quality (at baseline) than those who do not enter into such schedules. Second, as reported above, the main reason reported for working a nonstandard schedule among those who do so is that it is "the nature of the job," which suggests a lesser role for personal choice or self-selection into specific types of work schedules.

The present study focused on marital dissolution but was not able, due to data limitations, to examine the many relevant factors in the process that ultimately ends in this event. Future work should do so, by examining such additional factors as marital satisfaction, division of household labor and childcare, time use, and psychological stress and mental health as potential explanatory variables. Second, future research in this area needs to expand on these findings by considering life stages or cohort differences (Nomaguchi et al., 2005) and also differences by income group and race/ethnicity. Work-family strategies are dynamic and will likely change as social mores about mothers' and fathers' roles at home and at work continue to evolve; role expectations also differ across cultures and groups that have different traditions of mothers' and fathers' relative contributions to family earnings and home production (Landry, 2000). The impacts of parents' nonstandard work on marital stability might also differ by characteristics such as child's age and sex (Elder, 1999), but even our relatively large sample was not big enough to examine these important subgroups. The linkages we have established here confirm

and extend several of Presser's findings in her seminal paper; not only should these hypotheses continue to be tested in other data, but also, the rich story behind these linkages needs to be established.

Finally, a government interested in promoting successful marriages needs to consider how work experiences affect family life. To the degree that work creates family stresses that lead to marriage dissolution, policies that diminish work-related stress can enhance the likelihood that couples that decide to tie the knot will stay together. As non-standard work schedules become increasingly more "standard" among American workers, policy makers will have to devise new strategies to help these workers and their families

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Table 1

Descriptive Statistics of Study Variables

	Total Sample		Divorce		Do Not Divorce	
	Mean or %	SD	Mean or %	SD	Mean or %	SD
Demographic Characteristics						
Respondent male	0.52	---	0.51	---	0.52	---
Husband age at marriage	31.77	5.18	31.87	5.57	31.75	5.09
Wife age at marriage	29.68	4.77	29.58	4.87	29.70	4.75
Race						
White	0.59	---	0.54	---	0.60	---
Black	0.25	---	0.34	---	0.23	---
Hispanic	0.16	---	0.11	---	0.17	---
Respondent education	13.52	2.48	12.78	2.07	13.68	2.54
Respondent AFQT	43.66	28.58	38.01	27.05	44.87	28.76
Marital Characteristics						
Respondent first marriage	0.61	---	0.43	---	0.65	---
Birth	0.52	---	0.30	---	0.57	---
Cohab prior to marriage	0.64	---	0.70	---	0.63	---
Household Characteristics						
Income to needs	4.98	7.79	3.66	4.49	5.26	8.31
Husband Employment						
Daytime	0.63	---	0.45	---	0.67	---
Not attached to a job	0.08	---	0.17	---	0.06	---
Shift work	0.22	---	0.27	---	0.21	---
NEC	0.06	---	0.11	---	0.05	---
Wife Employment						
Daytime	0.54	---	0.40	---	0.57	---
Not attached to a job	0.20	---	0.28	---	0.18	---
Shift work	0.15	---	0.17	---	0.14	---
NEC	0.11	---	0.15	---	0.10	---
Marital Instability						
Divorce within 7 years	0.18	---	1.00	---	0.00	---
Length of marriage	7.27	1.74	3.87	1.77	8.00	0.00
N	*1,657*		*293*		*1,364*	

Table 2

Logit Regression Analysis

	Total Sample (n=1,657)			With Children (n=863)			Without Children (n=794)		
	B	SE	OR	B	SE	OR	B	SE	OR
Demographic Characteristics									
Respondent male	0.01	0.17	1.01	0.21	0.31	1.24	-0.13	0.22	0.88
Husband age at marriage	-0.03	0.01	0.97	-0.02	0.03	0.98	-0.03	0.02	0.97
Wife age at marriage	-0.04 *	0.02	0.96	-0.03	0.03	0.97	-0.03	0.02	0.97
Race									
Black	0.51 **	0.18	1.66	1.10 **	0.32	3.01	0.10	0.22	1.11
Hispanic	-0.41	0.23	0.66	-0.07	0.36	0.93	-0.74 *	0.31	0.48
Respondent education	-0.07	0.04	0.94	-0.18 *	0.07	0.84	-0.01	0.05	0.99
Respondent AFQT	0.01	0.00	1.01	0.00	0.01	1.00	0.01	0.00	1.01
Marital Characteristics									
Respondent first marriage	-0.79 ***	0.15	0.45	-1.25 ***	0.25	0.29	-0.48 *	0.18	0.62
Birth	-1.11 ***	0.16	0.33	---	---	---	---	---	---
Cohab prior to marriage	0.09	0.15	1.10	0.13	0.26	1.13	0.07	0.19	1.07
Household Characteristics									
Income to needs	-0.01	0.01	0.99	0.00	0.02	1.00	-0.01	0.02	0.99
Husband Employment									
Not attached to a job	1.07 ***	0.23	2.92	1.22 **	0.42	3.39	1.10 ***	0.28	3.01
Shift work	0.57 **	0.17	1.77	0.07	0.29	1.07	0.78 ***	0.21	2.17
NEC	0.88 **	0.26	2.40	-0.22	0.67	0.80	1.29 ***	0.31	3.62
Wife Employment									
Not attached to a job	0.77 ***	0.20	2.16	0.76 *	0.32	2.13	0.82 **	0.26	2.26
Shift work	0.33	0.20	1.39	0.83 *	0.36	2.29	0.09	0.25	1.10
NEC	0.65 **	0.22	1.92	0.29	0.43	1.34	0.86 **	0.27	2.37
Constant	1.34	0.75	---	1.41	1.45	---	0.32	0.89	---

Likelihood Chi-square	202.51	***	102.48	***	77.81	***
Psuedo R-Squared	0.13		0.18		0.09	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 3

Tobit Regression Analysis

	Total Sample (n=1,657)			With Children (n=863)			Without Children (n=794)		
	B		SE	B		SE	B		SE
Demographic Characteristics									
Respondent male	-0.11		0.54	-0.53		0.90	0.33		0.68
Husband age at marriage	0.06		0.04	0.02		0.10	0.08		0.05
Wife age at marriage	0.15	**	0.05	0.14		0.10	0.11		0.06
Race									
Black	-1.57	**	0.56	-3.32	**	0.96	-0.13		0.70
Hispanic	1.11		0.68	0.44		1.03	1.98	*	0.90
Respondent education	0.22		0.13	0.53	*	0.21	-0.02		0.16
Respondent AFQT	-0.02		0.01	0.00		0.02	-0.02		0.01
Marital Characteristics									
Respondent first marriage	2.51	***	0.46	3.79	***	0.78	1.44	*	0.57
Birth	3.73	***	0.49	---		---	---		---
Cohab prior to marriage	-0.11		0.47	-0.35		0.75	0.06		0.59
Household Characteristics									
Income to needs	0.02		0.04	0.01		0.06	0.04		0.06
Husband Employment									
Not attached to a job	-3.36	***	0.74	-3.76	**	1.32	-3.42	***	0.87
Shift work	-1.79	**	0.52	-0.27		0.84	-2.45	***	0.66
NEC	-2.78	**	0.83	-0.01		1.82	-4.00	***	0.96
Wife Employment									
Not attached to a job	-2.66	***	0.61	-2.39	*	0.95	-2.82	***	0.79
Shift work	-1.27	*	0.62	-2.77	**	1.05	-0.39		0.77
NEC	-2.24	**	0.70	-0.64		1.24	-3.10	***	0.85
Constant	4.09		2.31	4.18		4.12	7.55	**	2.76

Likelihood Chi-square	218.59	***	110.54	***	82.08	***
Psuedo R-Squared	0.08		0.11		0.04	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$