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Motivation for Night Work and Parents' Work-to-Family Conflict and Life Satisfaction

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Motivation for Night Work and Parents' Work-to-Family Conflict and Life Satisfaction

ABSTRACT

Purpose - I test the hypothesis that the effects of evening and night employment on working parents' work-to-family conflict and life satisfaction depend on the reasons that individuals name for their schedules.

Methodology/approach - Regression models are fitted to data from an original sample of 589 employed U.S. parents.

Findings –Partnered (married and cohabiting) fathers who work partially in the evening or night experience less work-to-family conflict if they report personal motives, but schedule motivation does not affect work-to-family conflict among partnered or single mothers. Partnered mothers who work primarily in the evening or at night report higher life satisfaction if they do so for personal reasons, but this effect is not found for single mothers or partnered fathers. Specifically seeing their schedules as facilitating family care matters for partnered mothers, but not fathers.

Originality/value – Although nonstandard employment schedules have been linked to poor well-being among working parents, this is the first quantitative study to assess the role of worker motivation to the author's knowledge.

Research limitations/implications – The results are suggestive because they are based on a non-probability sample of modest size. However, they demonstrate the need for future studies of employment scheduling to collect information on worker motivations.

Social implications – Most night workers in the U.S. do not select their shifts for personal reasons, putting them at risk for work-to-family conflict and reduced life satisfaction. They deserve extra support in exchange for laboring while others sleep or spend time with family.

Keywords: nonstandard work schedules; work family conflict; life satisfaction; employed mothers; employed fathers

Category: Research paper

In recent years, the U.S. economy has increasingly shifted to an around-the-clock basis. In an influential book, Presser (2003) identified a variety of changes in the economy, in demographics, and in technology that have increased the demand for labor in the evenings, nights, and rotating shifts that change on a regular basis. In 2010, according to data provided by the National Center for Health Statistics, 28.6% of jobs required such a nonstandard schedule (Alterman, Luckhaupt, Dahlhamer, Ward, & Calvert, 2013).

One reason for the scholarly attention to shift work is that it has been linked to a variety of negative consequences for workers' well-being (Davis, Goodman, Pirretti, & Almeida, 2008; Kalil, Dunifon, Crosby, & Su, 2014; La Valle, Arthur, Millward, Scott, & Clayden, 2002; Perry-Jenkins, Goldberg, Pierce, & Sayer, 2007). Occasionally, however, shift work is found to be beneficial for some employed parents (Barnett, Gareis, & Brennan, 2008; Liu, Wang, Keesler, & Schneider, 2011; Mills & Täht, 2010). While quantitative researchers have identified moderating factors that differentiate parents who do and do not suffer as a result of shift work, these scholars have not been able to take the motivation for working a nonstandard schedule into account. This is a key omission. At least some parents accept nonstandard shifts in order to facilitate their parental responsibilities, as in the case of "tag-team" or "off-shifting" couples, who stagger their employment in order to provide 24/7 care for young children (Pagnan, Lero, & Wadsworth, 2011). Others may prefer nonstandard hours in order to avoid rush hour commuting or because they go to school during the daytime. Logically, parents who affirmatively choose shift work, or at least find it to be compatible with family responsibilities, may be more likely to escape the negative consequences associated with these schedules.

In this study, I test the hypothesis that the harmful effects of evening and night shift work, in particular, depend on the reasons that a sample of 589 U.S. employed parents name for

their employment schedules. Three groups of parents are studied separately: partnered (married

and cohabiting) mothers, single mothers, and partnered fathers. Two outcomes, work-to-family

conflict and life satisfaction, are examined. Partnered fathers whose employment takes place

partly in the evening or at night experience less work-to-family conflict if they report personal

motives. On the other hand, evening and night work are not associated with work-to-family

conflict among partnered or single mothers. Partnered mothers who work primarily in the

evening or at night report higher life satisfaction if they provide personal reasons for their

schedules. Single mothers who work these hours have lower life satisfaction regardless of

personal reasons, and evening and night work are not associated with the life satisfaction of

married fathers. Specifically seeing their schedules as facilitating family care matters for

partnered mothers, but not fathers.

<div align="center">BACKGROUND</div>

<div align="center">*Theoretical overview*</div>

Shift work has become a frequent subject of study among scholars trained in both sociology and

psychology. In psychological research, investigators often draw upon an ecological framework

(Bronfenbrenner, 1994) that encourages questions about the impact of conditions in one social

system on other social systems. Thus, this theoretical tradition explicitly encourages research on

effects of shift work beyond the workplace. In an influential treatment of the work-family

interface from an ecological perspective, Voydanoff (2002) proposed work-family fit, a person's

assessment of how well the two spheres are balanced or integrated, as a key mechanism through

which work and family arrangements translate into personal well-being. The present study

focuses on motivation for shift work as an element of work-family fit. If shift workers perceive

their hours as chosen for family or personal reasons, they are more likely to feel that the work and family spheres fit harmoniously.

An important perspective sociologists have brought to bear is a critical gender lens. From this viewpoint, gender is a component of social structure (Risman, 2004) that shapes opportunities and constrains life chances. Simultaneously, it is an interactional accomplishment that individuals maintain by continually "doing gender", which means that existing gender arrangements can also be "undone" if individual behavior changes on a widespread basis (Deutsch, 2007). However, the gender system resists change, and concerted attempts to undo it often yield incomplete results. One of the outstanding examples of this in the contemporary U.S. context is the "stalled revolution" in work and family (Hochschild, 1989). Women have met with great success in entering formerly-restricted educational and occupational fields, but have only achieved piecemeal progress in persuading their partners and employers to make accommodations that facilitate the combination of employment and motherhood. The new gender equilibrium has aptly been characterized as egalitarian essentialism (Cotter, Hermsen, & Vanneman, 2011), meaning that a rhetoric of choice and of equality are combined with a strong cultural pull for women to prioritize motherhood over career. For the purpose of the present study, I derive the implication that, to the extent that more continues to be demanded of mothers at home than of fathers (see also Hays, 1996), mothers' sense of personal well-being will be more sensitive to the work-family fit of nonstandard scheduling than fathers' will.

Shift work and well-being

The present study will focus upon two forms of well-being among working parents: the specific phenomenon of work-to-family conflict and the much broader construct of life satisfaction. To begin with the former, many scholars have found that evening and night work are associated with

higher work-to-family conflict. This result has been reported for a broad sample of married

parents (Davis et al., 2008), as well as among specific populations, including married nurses

(Barnett et al., 2008) and employees of a plastic packaging factory (Perrucci & MacDermid,

2008). In a mixed-method study of U.K. parents who work any kind of nonstandard hours, La

Valle and colleagues (2002) were able to develop a rich account of how shift work impacts

family life. Their interviewees reported that it interferes with family dinners, with child-oriented

activities like attending children's sports, with family activities like visits to friends and relatives,

and even with family vacations.

However, negative associations between shift work and work-family conflict are

sometimes found to be contingent. Specifically, Liu and co-authors (2011) found increased

work-family conflict among cohabiting parents who were shift workers, but no effect on those

who were married. The study of the packaging factory reported that evening shift, but not night

shift, workers experienced high work-family conflict (Perrucci & MacDermid, 2008).

Findings about life satisfaction and about depression and distress are also mixed. Some

scholars have found depression to be higher among shift workers (Perry-Jenkins et al., 2007;

Strazdins, Clements, Korda, Broom, & D'Souza, 2006). In line with their findings about work-

family conflict, however, Liu and colleagues (2011) reported that shift work has differential

effects depending on marital status. Nonstandard hours increased life satisfaction and lowered

feelings of distress in their sample of married parents, but had no effect on cohabiting parents.

Barnett and colleagues (2008) similarly found married night nurses to feel less distress than those

on the day shift.

Shift work has also been reported to have other effects that might interfere with

individuals' life satisfaction. Nonstandard hours have been associated with sleep deprivation

(Chatzitheochari & Arber, 2009; Chung, Wolf, & Shapiro, 2009; Kalil et al., 2014). Marital

conflict and instability also seem to be more likely among shift workers, although researchers

have come to divergent conclusions about whether the worst arrangement is a night shift (Davis

et al., 2008; Kalil, Ziol-Guest, & Epstein, 2010), or a rotating schedule (Perry-Jenkins et al.,

2007). Scholars studying a Dutch sample, however, found few effects of shift work on

relationship quality. They also found that the statistically significant associations were positive

for fathers of young children (Mills & Täht, 2010).

Schedule motivation among shift workers

The literature demonstrates that the impact of shift work depends on a number of

contextual factors, including the gender and partnership status of the worker. A close reading

suggests an additional contextual factor, one that is the central focus of the present study: the

reasons individuals work nonstandard schedules. There is no question that these reasons vary

from person to person. In a descriptive analysis of data from the 1997 Current Population

Survey, Presser (2003) found job-related reasons, such as "could not get any other job," to be the

most common kind of explanation for shift work, although a quarter of the sample chose

personal and familial reasons, such as "better child care arrangements" and "more time for

school". A UK study (La Valle et al., 2002) similarly found a substantial minority reported

working nonstandard hours for personal motives. It is important to note that more women than

men in these studies nominated a personal or familial reason for working a nonstandard schedule

(La Valle et al., 2002; Presser, 2003). This suggests that accepting shift work for personal

reasons may be a gendered decision.

Qualitative scholars have explored individuals' reasons for working nonstandard shifts.

For example, a study of middle class married couples who off-shift, meaning that they

deliberately work opposed schedules, found that couples tended to have mixed motivations. They were both pushed into this arrangement by the requirements of one spouse's job and pulled into it by perceived benefits (Pagnan et al., 2011).

Qualitative scholars have further explored the extent to which motivation for shift work may be gender-specific. Garey (1995) found that women employed as night-shift nurses strategically used their schedules to perform the culturally-valued role of stay-at-home mother during the day while also earning income. Hattery's interviews with mothers who were shift workers (2001) yielded similar insight. I suggest that these findings accord with the critical gender scholarship reviewed earlier. To the extent that working mothers feel more pressure than fathers to be intensively involved in parenting during the day (Cotter et al., 2011), they are more likely to take on evening and night work voluntarily. However, this is not to say that gender completely determines which parents value shift work for personal reasons. Pagnan and co-authors (2011) observed that fathers in off-shifting couples were just as committed to parental involvement as mothers. Congruent with this, research has shown that fathers in dual-earner couples who off-shift provide a good deal of routine child care (Weinshenker, 2016; Wight, Raley, & Bianchi, 2008).

Motivation for shift work is also likely to vary by family structure. Partnered parents on the night shift can typically rely on the other partner to stay with the children; indeed, some couples make a deliberate choice to off-shift when their children are young so that one parent can always be on child care duty (Pagnan et al., 2011). Single parents may be able to tag-team with a grandparent, the child's non-resident parent, or another relative, but such informal care arrangements are often unreliable, compared to institutional care or to a live-in partner (Enchautegui, Johnson, & Gelatt, 2015). At the same time, institutional care is exceedingly rare

during non-daytime hours. Therefore, employment in the evening and at night is less likely to

enhance the work-family fit of lone parents. As one would expect, single shift workers have

been reported to be less likely than married ones to offer personal reasons for their schedules

(Presser, 2003).

<center>*The present study*</center>

We have a rich quantitative literature on the impact of shift work on well-being, complemented

by a good deal of descriptive and qualitative information about the motivations of shift workers.

However, the authors of the studies of well-being have not been able to assess the role of

workers' motivations. Researchers sometimes propose motivation as one explanation for

findings that shift work harms or enhances well-being, but they have not statistically tested

whether this is so. The reason is that publicly available data sets that contain measurements of

personal and family well-being among shift workers do not include the reasons for taking on a

nonstandard schedule.

By making use of an original online survey of parents, this study aims to fill the gap and

to empirically test whether shift work in the evening or at night is less harmful to worker well-

being when chosen for personal or family reasons. Confirming this untested supposition would

fill an important gap in the broader picture of the impact of the 24/7 economy on individual well-

being. Families affected by shift work, employers, human resource professionals, and

professionals who support families need to understand as much of the picture as possible.

As mentioned earlier, this study focuses upon two measures of well-being that differ in

specificity. Work-to-family conflict is a targeted phenomenon that appears likely to be affected

by employment scheduling and by the reasons that workers feel they have for their hours.

Overall life satisfaction is a much broader construct. Both have been the subject of past research

on shift work, which facilitates comparison between this research and other literature.

Here are the hypotheses that will be investigated.

1. Evening and night work will be more likely to have a harmful impact on the work-to-
    family conflict and the life satisfaction of those who report working nonstandard
    schedules for job reasons alone, when compared to those who identify any family or
    personal reasons.

2. Because mothers face pressures for more intensive involvement in parenthood, the
    motivation for shift work will moderate the effects on work-to-family conflict and life
    satisfaction more strongly among mothers than among fathers.

3. Because of greater opportunity to tag-team with a partner, motivation will moderate the
    effects on married and cohabiting mothers more than single mothers.

Taken together, hypotheses 2 and 3 predict that having personal reasons for night work will most

affect mothers who live with a partner.

METHOD

Data source

The data for this investigation were collected in the Online Survey of Parental Happiness, a

survey of U.S. parents who live with one or more children aged 18 or under, either all or part of

the time. The author of the present study was one of two principal investigators. The survey was

completed by parents who were part of a panel provided by Qualtrics, LLC. Members of the

standing panel sign up to participate in occasional surveys like this one. In return, they earn a

minor incentive: credits that can be accumulated and redeemed for rewards such as gift cards.

The data were collected in late October and early November of 2016.

1050 individual respondents completed the Web-based survey, but 50 cases have been excluded from analysis because of multiple patterns of problematic data, such as response sets, implausible combinations of answers, and random keystrokes in open-ended responses. (It is a coincidence that the effective sample size is 1000; achieving a round number was not a goal.) The analysis in this paper draws on data from 589 respondents who reported that they were employed or self-employed, either full or part-time. These individuals include 267 mothers living with a spouse or partner, 117 single mothers, and 205 fathers living with a spouse or cohabiting partner. Although there are some employed single fathers in the dataset, the number (75) is too small to permit separate analysis.

The sample for this study are volunteers, and the results cannot be taken as representative of the U.S. population. However, diversity in gender, marital status, and family income was achieved by setting quotas for these variables. The sample is also diverse geographically; respondents to the original survey came from all 50 U.S. states, and substantial fractions of the sample analyzed here describe their communities as urban (38%), suburban (44%) and rural (18%).

Compared to population-weighted data from the American Community Survey (https://www.census.gov/programs-surveys/acs), the employed parents in the present study are considerably more educated than the U.S. population. 58.1% of the sample have a BA, as opposed to 29.7% of Americans age 25 and above. A larger percentage are also non-Hispanic white: 78.0% versus 61.1% in the entire population. Because quotas were set for marital status and family income, the sample resembles the population more closely on these attributes. 77.4% of respondents are in families who earn at least $40,000 per year, as opposed to 69.8% of all families with their own children, and 64.3% of the sample are married, compared with 67.57% of

all adults with children in the U.S. that are headed by a married couple. (These are all author's

calculations based on the 2015 and 2016 American Community Survey data files.) The selective

and relatively privileged nature of the sample should be kept in mind when interpreting the

results.

Measures

Worker well-being

The first form of worker well-being, work-to-family conflict, is measured with the widely-used

five-item index developed by Netemeyer and colleagues (1996). On a five-point Likert scale,

respondents were asked their level of agreement with five statements indicating how much work

interferes with family life. These statements are: "The demands of my work interfere with my

home and family life," "The amount of time my job takes up makes it difficult to fulfill family

responsibilities," "Things I want to do at home do not get done because of the demands my job

puts on me," "My job produces strain that makes it difficult to fulfill family duties," and "Due to

work-related duties, I have to make changes to my plans for family activities." In the analysis

sample, Cronbach's alpha is .93, with only slight variation between partnered mothers, single

mothers, and partnered fathers.

Life satisfaction was measured with the Satisfaction with Life Scale (Diener, Emmons,

Larsen, & Griffin, 1985). On a five-point Likert scale, respondents evaluated their agreement

with five statements that vary in how strongly they are worded: "In most ways, my life is close to

my ideal," "The conditions of my life are excellent," "I am satisfied with life," "So far I have

gotten the important things I want in life," and "If I could live my life over, I would change

almost nothing." Cronbach's alpha is .89 in the sample, and once again, there is minimal

difference between subgroups.

Evening and night shift work

In the survey, respondents were asked to select the hours at which they most commonly begin and end work. The question text asked, "At what hour do you most commonly begin (leave) work at your main job, on days when you go to work?" Asking about schedules this way allows evening and night shift work to be identified with greater precision than does offering a small set of fixed choices such as "day shift," "evening shift," and "night shift."

Evening and night shift work is here operationalized as the percentage of the respondent's typical workday at his or her primary job (for those who have more than one) that takes places outside the hours of seven A.M. and five P.M. Based on this definition, 67.9% of the sample work during the daytime only. Another 19.2% of the sample work one quarter or fewer of their hours outside the boundaries of daytime work. The remaining 12.9% work more than one quarter of their hours in the evening or at night, and the modal value for this group is 100% of their hours. These three types of workers will be hereafter referred to as the "no night work," "partial night work," and "primary night work" groups. ("Night work" will be used as an abbreviation for "evening and night work" in the presentation of results.) Unfortunately, the data were not designed for identifying workers with rotating shifts; this is one limitation of the analysis.

While the other variables used in this study required no or minimal data cleaning, some start and end time variables were adjusted. 79 respondents (about 13% of the sample) reported start and end times that implied somewhere between 19 and 24 hours of work at a time. It is true that some workers actually have shifts that long (e.g. emergency medical technicians and workers on a split shift with a long break in the middle). In addition, a few individuals with two jobs may have misread the question and reported the start time for their first job and the end time

for their final one. However, the survey did not collect the corroborating data needed to

accurately identify such individuals. Because only two of those 79 respondents reported long

work weeks in response to a question about total weekly hours, it was decided to treat the rest of

these responses as errors. The majority of the respondents in question offered morning start

times, between 7 and 9 AM. Therefore, the start times were retained, but the end times were

adjusted to harmonize with each respondent's answer about total weekly hours worked,

assuming a five day workweek. The original start and end times were retained for the two

respondents who reported both very long shifts and very long workweeks.

To test the robustness of the results, the regression models in this study were re-run using

data in which all original values for start and end times were left alone. The results were similar

to those using the cleaned data. Further details are provided in the results section.

Family structure

The respondent's family structure is here operationalized in three categories: single, cohabiting,

and married. In models for partnered parents, an indicator for cohabitation is included as a

covariate.

Reasons for work schedule

Regardless of their start and end times on the job, all employed parents were asked, "What are

the reasons you begin and end work on this schedule?" The nine answer choices, from which

respondents could select as many as they chose, mirrored those in the Current Population Survey

data used in Presser (2003): nature of the job, mandated by employer, could not get any other

job, better pay, easier commute, better child care arrangements, better arrangements of care for

family members, more time for school, and other (please explain). The first four answers were

coded as job reasons, and the next four were coded as personal and family reasons (henceforth

called "personal reasons" for brevity). The open-ended responses offered by those who selected

"other" were recoded as job or as personal reasons where possible, although a few responses,

most of which were too ambiguous to categorize clearly, were disregarded. For analytical

purposes, an indicator variable was created to identify respondents who nominate any personal or

family reasons, regardless of whether job reasons are also mentioned. The omitted group are

those who identified only job reasons.

Since caregiving plays an important role in the rationale for the present study, a second

indicator was created to identify those who selected specifically care-related reasons for their

employment schedules. The reasons in question are "better child care arrangements" or "better

arrangements of care for family members."

Covariates

Gender is measured as an indicator for whether the respondent is female. A lone respondent who

chose a gender label of "other" was coded not female for the present purpose (*i.e.* grouped with

males). The regression results are effectively the same if this case is coded female or is omitted

from the data.

Several additional covariates were included to reduce the chance of confounding. The

first of these is the respondent's age, which is measured categorically in eight groups. Racial

identification was measured using a single question asking respondents to select all the

categories that applied to them: white/Caucasian, African American, Hispanic, Asian, Native

American or Pacific Islander, and other. For this study, these categories have been collapsed into

an indicator for whether the respondent identifies as non-white or as more than one race; single-

race non-Hispanic white is the omitted group. The respondent's socioeconomic status (SES) is

an average of education and family income, each of which were measured in seven ordered

categories.

Caregiving responsibilities are operationalized through four measures. First, there are

indicators for the number of children aged 18 and under with whom the respondent lives, and for

whether the respondent has any children under age 5. Next, for each child with whom they live,

respondents were asked, "Does this child have any disabilities?" An indicator has been created

and set equal to one for parents who reported at least one disabled child. Finally, all parents

were asked, "Do you help care for anyone other than your own children, such as an elderly

parent or a disabled relative?" This study contains an indicator set equal to one if a parent

answered in the affirmative.

All models include an indicator of whether the respondent is self-employed. A

categorical measure of typical weekly hours on all jobs combined, if the respondent has more

than one, is controlled as well. Finally, in models for partnered respondents, the partner's typical

weekly employment hours are controlled. The value of this variable is zero if the respondent

reported that his or her partner is not employed.

Analysis plan

The research hypotheses are tested through multivariate regression models. Because work-to-

family conflict and life satisfaction are continuous outcomes, the ordinary least squares

regression model is used.

For each outcome, separate models are fitted for each of the three groups: partnered

mothers, single mothers, and partnered fathers. First, each outcome is regressed on the indicators

for partial and primary night work, the indicator for whether the respondent provides job reasons

only for his or her schedule, and all the covariates. The second model adds an interaction

between each of the two night work indicators and the indicator for naming personal reasons.

Because the effects of night work on well-being are known to be dependent on context, it

seemed likely that night work might predict well-being only among those who do or do not feel

themselves to have personal reasons for their schedules. Therefore, models with the two

interaction terms have been run regardless of whether the main effects of night work and of

reasons for work schedule are statistically significant for a given group.

RESULTS

Descriptive statistics

Means, standard deviations, and proportions for all the analytic variables are reported separately

by subgroup in Table 1. To briefly review some of the sample's characteristics, all three

subgroups tend to have higher scores on life satisfaction than on work-to-family conflict. At the

same time, partnered fathers report the highest average values of both constructs. Partnered

mothers have the lowest work-to-family conflict, and single mothers have the lowest life

satisfaction.

Table 1 about here

Partnered mothers are least likely to be night workers, regardless of whether the category

in question is partial night work (25% or fewer hours outside the 7 A.M. to 5 P.M. window) or

primary night work (26 to 100% shift work). On the other hand, partnered mothers are slightly

more likely than the other groups to name one or more personal reasons for their employment

schedules. Additional analysis (not shown) demonstrates that among partnered mothers and

fathers, there are only small and statistically insignificant differences between the proportion of

daytime and of night workers who name personal reasons. However, the percentage of single

mothers who name personal reasons is significantly higher among daytime workers (47.1%) than

night workers (25.5%), consistent with the supposition that single parents are less able to practice

tag-team parenting if they are employed at nonstandard hours.

The percentages who identify care reasons in particular are smaller. Both partnered and

single mothers are more likely than fathers to respond that their schedules facilitate care.

Additional analysis shows that, as with personal reasons, night work does not affect the

percentage of partnered mothers and fathers who name care reasons, but single mothers are

significantly more likely to report that their schedules facilitate caregiving if they have daytime

schedules (41.4%) rather than night ones (19.1%).

Most of the covariates have similar means or proportions for the three groups, or else

differ in predictable ways. For example, partnered fathers report the longest average work hours

of the three groups. One result which stands out is that partnered fathers are most likely to report

that they help care for someone aside from their children. This is surprising given the

documented tendency of women to provide more hands-on care for the elderly than men (Wolff

& Kasper, 2006). Although some of these fathers undoubtedly do provide caregiving assistance,

it may also be the case that partnered fathers were more likely than either group of mothers to

interpret the question as referring to financial assistance.

Results for work-to-family conflict

Table 2 reports the results from regression models fitted to test the hypothesis that having

personal or family reasons for one's employment schedule reduces the work-to-family conflict of

mothers who do night work. The full model results are presented in Table 2. The narrative will

focus on the regression coefficients that pertain to the study hypotheses. Due to the large

number of models in this study, covariate effects will only be mentioned briefly.

The column titled Model 1 reports the results of a regression that includes the main

effects of night work and of personal motivation, but omits the interaction between them.

Among partnered mothers in the study, partial and primary night work have no significant effect

on work-to-family conflict. Neither does personal motivation for one's schedule. Only age,

SES, and caring for others aside from children significantly predict the outcome.

<center>Table 2 about here</center>

Model 2 adds two interaction terms: one between personal motivation and partial night

work, and a second between personal motivation and primary night work. This model is

designed to test hypothesis 1, which predicted that night work would be less likely to increase

work-to-family conflict if workers had personal motives for being employed at night. However,

neither interaction is significant, meaning that the hypothesis is not supported for the work-to-

family conflict of partnered mothers.

The next two columns in Table 2 report the results of running the same regressions

(Model 1 and Model 2) on the sub-sample of single mothers. Among this group, personal

motivation matters; single mothers who report personal reasons for their work schedules are also

predicted to have significantly lower work-to-family conflict. However, night work itself does

not predict work-to-family conflict. Neither is the effect of personal motivation conditioned by

night work; the interactions between the two are not statistically significant, so hypothesis 1

receives no confirmation. Age is the only other significant predictor of work-to-family conflict

among single mothers.

<center>Table 3 about here</center>

Table 3 displays the results of models predicting the work-to-family conflict of partnered

fathers. In model 1, night work and schedule motivation have no main effects on partnered

fathers' work-to-family conflict. On the other hand, partnered fathers' work-to-family conflict is predicted by age, by having a disabled child, by caring for others, and by weekly hours of work.

In Model 2, however, there is support for the first hypothesis. There is a significant interaction between partial night work and having personal reasons for one's schedule. In other words, among partnered fathers who work a fraction of their hours outside the seven A.M. to five P.M. window, their work-to-family conflict is significantly lower if they identify personal reasons for their employment schedules. The same effect does not obtain among those who primarily work at night.

Figure 1 about here

To aid in understanding this interaction effect, adjusted means for partnered fathers are graphically shown in Figure 1. These are the predicted values for work-to-family conflict among fathers who differ in their work schedules and their motivations; all other values are set to the sample means. The figure shows that fathers who do partial night work are predicted to have relatively high work-to-family conflict scores if they do not have personal reasons for such a schedule. If they do name personal reasons, their work-to-family conflict is predicted to be lower than fathers in any other situation. By way of comparison, the effect of personal motivation is weaker and not statistically significant for fathers who work primarily at night. Personal motivation actually increases the conflict of fathers who work primarily during the day, but this effect cannot be statistically distinguished from zero either.

This study's second hypothesis posited that personal motivation for one's employment schedule would be more likely to moderate any negative effects of night work among mothers than among fathers. The third was that, when comparing the two groups of mothers, having personal reasons for night work would benefit partnered mothers more. However, personal

motivation only proved to condition the effect of night work on partnered fathers. Hypotheses 2

and 3 are not supported for work-to-family conflict in this sample.

Results for life satisfaction

The results for mothers' life satisfaction are in Table 4. First, among partnered mothers, there is

no effect of night work or of personal motivation on life satisfaction in Model 1. When the

interaction is tested in model 2, however, both the main effect of primary night work and its

interaction with personal motivation are significant, with opposite signs. Among those who

nominate only job reasons for their schedules, primary night work is predicted to reduce life

satisfaction. However, this effect is fully counteracted by having personal reasons for one's

night schedule. Thus, hypothesis 1 is supported for the life satisfaction of partnered mothers. In

addition, cohabitation and age are significant predictors, and the effect of SES becomes

significant in model 2.

Figure 2 about here

Figure 2 graphically illustrates the adjusted means for life satisfaction among partnered

mothers. The graph clearly shows that the difference between mothers who do and do not have

personal reasons for their schedules is considerably larger for those with primary night work than

for either of the other schedule types. In fact, primary night work mothers who name personal

reasons are predicted to be the most satisfied of any group, and those who do primary night work

only for job reasons have the lowest life satisfaction.

Table 4 about here

Among single mothers, primary night work is predicted to lower life satisfaction. Having

personal reasons for one's schedule, on the other hand, has no significant effect. Moreover, in

Model 2, personal reasons do not prove to moderate the effect of primary night work, although

they do render insignificant its main effect. The only other significant predictors of life

satisfaction among single mothers are SES and hours of employment.

<center>Table 5 about here</center>

Finally, Table 5 presents the results of regression models for partnered fathers' life

satisfaction. The results of these models offer no support for hypothesis 1. Night work does not

predict partnered fathers' life satisfaction, and neither does it interact with personal motivation to

do so. However, the regression models have the highest R-squared values of any results

presented here, because many of the covariates do influence partnered fathers' life satisfaction.

These include cohabitation, age, SES, work hours, and self-employment.

Considering all the results for life satisfaction put together, having personal reasons for

one's schedule counteracts a negative effect of night work for partnered mothers, and not for

partnered fathers or for single mothers. Therefore, hypotheses 2 and 3 are supported for this

outcome.

<center>*Robustness checks*</center>

To address potential objections to the validity of the results, several alternative model

specifications were fitted. First, should the self-employed be included in a study that focuses on

motivation for one's employment schedule? Self-employed individuals, after all, may be

especially likely to have the freedom to set their own hours. Therefore, their inclusion may

distort the estimated impact of having personal reasons for one's schedule on the majority of the

sample, who are employees. To test this possibility, the 32 self-employed respondents were

eliminated from the data, and models identical to those in Tables 2-5 were fitted on data from the

remaining 557 cases. The resulting regression coefficients for personal motivation, night work,

and their interaction were effectively identical to those in Tables 2-5. (Results are not shown.)

Next, it was anticipated that the impact of night work on well-being may be less severe for part-time employees, particularly those who work a small number of hours per week. If that were the case, then analyses of data from all employed parents, regardless of the number of hours of work, may understate both any negative effects of night work and any moderating effects of personal motivation. In order to assess this possibility, the regression models were re-run after eliminating the 57 respondents who work 20 hours or fewer per week. The key model coefficients are displayed in appendix table A1.

To describe these results briefly, primary night work continues to have a negative effect on single mothers' life satisfaction, but personal motivation no longer has a significant effect on single mothers' work-to-family conflict ($p = .057$). In addition, primary night work now reduces the life satisfaction of partnered fathers who work 21 hours or more per week. But importantly, the moderating effects of schedule motivation prove to be robust; they are effectively the same as those reported in Tables 2-5. That is, personal reasons for one's schedule improve the life satisfaction of partnered mothers who do primary night work, and reduce the work-to-family conflict of partnered fathers who do partial night work.

As explained earlier, some survey responses about start and end times of employment were recoded because they implied that respondents worked extremely long days. To assess the sensitivity of the results to this data cleaning, the regression models were re-run using night work measures based upon the original, unaltered responses about start and end times. The key results, which are summarized in Table A2 in the appendix, strongly support the validity of the study's major findings. Even though a larger number of respondents are defined as night workers using the unaltered data, the interaction results in Tables 2-5 are essentially reproduced in Table A2. Among partnered mothers, primary night work still reduces life satisfaction when

done for job reasons only, as was the case in Table 4. Similarly, the significant interaction

between partial night work and men's personal motivation continues to obtain. This is strong

evidence for the robustness of the findings about the effects of personal motivation on the well-

being of shift workers. On the other hand, the main effects of night work on life satisfaction

differ somewhat from those in Tables 4 and 5.

The impact of arranging shift work around family care

This study's second hypothesis proposed that because more intensive parenting is demanded of

women, the motivation for night work will moderate the effects on well-being more strongly

among mothers than among fathers. In the main results, this hypothesis was supported in the

findings about life satisfaction, but not work-to-family conflict. However, the measure of

"personal reasons" for one's employment schedule in this study aggregates diverse answers to

the question of why respondents are employed at the times of day that they are. To reiterate,

these include "easier commute," "better child care arrangements," "better arrangements of care

for family members," and "more time for school." To further test the second hypothesis, new

regression models were run in which the indicator for personal reasons was replaced with an

indicator for naming one or more care reasons, which are the second and third items named

above.

Table 6 about here

The key results, which are summarized in Table 6, show that doing night work because of

its compatibility with family care ameliorates the negative impact of a nighttime schedule on

partnered mothers' life satisfaction. On the other hand, fathers who do a small percentage of

night work do not experience reduced work-to-family conflict if they name care reasons for their

shifts. Thus, hypothesis 2 is supported by this analysis; arranging employment to better harmonize with care responsibility only impacts partnered mothers.

<div align="center">DISCUSSION</div>

This study demonstrates that perceived work-family fit, in the form of feeling that one has personal reasons for one's work schedule, sometimes has an impact on the well-being of parents employed in the evening and the night. Specifically, personal motivation makes a difference in the work-to-family conflict of partnered fathers whose shifts extend beyond the bounds of the daytime (7 A.M. to 5 P.M.) to a limited extent. Personal reasons also improve the life satisfaction of partnered mothers whose shifts primarily take place at night. By contrast, motivation does not moderate the effect of shift work on single mothers' work-to-family conflict or life satisfaction.

The most striking thing about these findings is the mixed support for hypotheses 2 and 3. It was predicted that having personal reasons for night work would be most protective of the well-being of partnered mothers. This was supported for the outcome of life satisfaction. Under a gender regime of egalitarian essentialism (Cotter et al., 2011), arranging work around the need to care for family is more of an imperative for women than men, particularly if they have a partner. Indeed, qualitative research has shown that some mothers seek out night work so that they can be seen as full-time mothers during the day, when others can notice and approve their performances (Garey, 1995; Hattery, 2001). In addition, some partnered mothers no doubt prefer night work less for performative reasons than because of its work-family fit; they are part of a tag-team in order to avoid the cost and worry of non-family care for children (Pagnan et al., 2011). Considering that some combination of these two rationales may apply in specific cases, it is not surprising that partnered mothers are more satisfied with their lives if they feel they are

doing evening and night work for personal reasons. This interpretation is bolstered by the fact that the finding also obtains when looking at the subset of personal reasons pertaining to family care.

Although the present study combined married and cohabiting mothers, and compared them to single mothers, the results are broadly consistent with past studies showing that shift work can enhance the life satisfaction and lower the distress of married mothers (Barnett et al., 2008; Liu et al., 2011). The present study elaborates the past findings by revealing that personal reasons for night work are an important part of the explanatory mechanism. By contrast, although primary night work is found to reduce the life satisfaction of single mothers, this effect is not moderated by their reasons for having such a shift. This may be due to the fact that they do not have a live-in partner to share child care.

Turning to work-to-family conflict, the results confound the study's hypotheses, in that personal reasons only moderate the impact of evening and night work on partnered fathers. Perhaps this result should not be surprising, since scholars who have considered workers of both genders have certainly found shift work to increase forms of work-to-family conflict among men as well as women (Davis et al., 2008; Perrucci & MacDermid, 2008). On the other hand, the fact that the result did not hold up in a model using a measure of personal reasons related to care suggests that many of these fathers may find a shift that either begins or ends outside of standard working hours to be beneficial for other reasons. The most likely of these is that it shortens their commute. A shorter commute, in turn, could be less stressful, and could give them more time at home, or for other pursuits.

It must be emphasized that these results do not necessarily imply that fathers with nonstandard schedules do not care for their children, or that they only do so unwillingly.

Evidence from nationally-representative surveys has demonstrated that married and cohabiting fathers who work nonstandard schedules do a large amount of care for young children (Weinshenker, 2016; Wight et al., 2008). Moreover, interview studies have shown that these fathers – as well as their partners – value their involvement in caregiving (La Valle et al., 2002; Pagnan et al., 2011). Indeed, one speculative explanation for these findings is that some fathers identify themselves as working nonstandard hours only for job reasons or for a better commute, when an outside observer would label them as doing so for family care as well.

The interpretations offered here must be qualified by an acknowledgement of the limitations of the analysis. First, it bears repeating that while the sample was diverse in key respects, it was not selected using probability techniques. It over-represents white and highly educated parents, so the conclusions cannot be confidently generalized to the broader population of working parents. The study was also modest in size. Although the sample supported regression models for mothers with and without partners, as well as fathers with partners, the numbers of unpartnered fathers were too small for separate analysis.

All the data for this study come from a single source: survey responses of parents. As such, they are subject to social desirability effects and other sorts of self-reporting biases. Because the survey was designed primarily to collect information about family life and about respondent well-being, several measures that might have proven useful in these analyses were not collected. Respondents were not asked about rotating shifts, split shifts, or employment on the weekend. Minimal information was also collected about respondents' partners' employment. Finally, the data used here are cross-sectional, which means that alternative causal paths cannot be ruled out as well as they could be with multiple waves of data.

In spite of the limitations, this study makes an important contribution to our understanding of the 24/7 economy. Although nonstandard employment schedules are often shown to be a risk factor for workers' well-being (and the well-being of their family members), this is not always the case. The reasons shift workers perceive for having their employment schedules appear to be a key piece of the explanation for the varied findings. Therefore, the first implication of this study is that researchers conducting representative surveys on work-family issues should include a question about the reasons parents are employed at the times they are. With this data, researchers will not only be able to confirm the key finding of the present study, but also enrich further investigations on shift work and well-being.

In addition, this study highlights the fact that more research is needed about single parents – both mothers and fathers – who care for their children and who do shift work. We know that partnered parents are more likely to name personal reasons for shift work, and that shift work is more likely to improve the outcomes of partnered parents. However, it would be productive to understand the exceptions. When do single parents make an affirmative choice to work at nonstandard hours? And under what conditions do such hours improve their well-being?

At the same time, this study confirms past scholars' findings that the majority of night workers do not have personal reasons for their schedules. They work the shift they do because it is the only schedule they can get, or because they need more than one job, or for other purely job-related reasons. Unless this situation changes in the United States, I join other scholars (Enchautegui, 2013; Presser, 2003) in emphasizing that these workers require extra support in exchange for laboring while others sleep or spend time with family. Whether such support takes the form of nighttime child care and transportation assistance, mandated shorter hours, or higher

wages for night work, individuals deserve extra consideration for staffing the 24/7 jobs that U.S. businesses and consumers demand.

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Table 1. *Descriptive Statistics*

Variables	Partnered Mothers (N = 267)		Single Mothers (N = 117)		Partnered Fathers (N = 205)		
	M or prop.	SD	M or prop.	SD	M or prop.	SD	Range
Work-to-family conflict	2.75	1.17	2.82	1.18	3.23	1.17	1-5
Life satisfaction	3.73	0.83	3.37	0.99	3.97	0.77	1-5
Partial night work	.17		.20		.22		0-1
Primary night work	.07		.21		.16		0-1
Personal reasons[a]	.43		.38		.39		0-1
Care reasons[b]	.33		.32		.27		0-1
Cohabiting	.11		-		.08		0-1
Age	3.22	1.65	2.77	1.98	3.32	1.78	0-7
Non-white	.17		.30		.21		0-1
SES	4.49	1.24	3.14	1.32	4.70	1.26	1-7
Child under 5	.40		.38		.40		0-1
# children under 18 at home	1.80	.87	1.60	0.84	1.91	.82	1-6
Any child disability	.10		.14		.15		0-1
Other care	.22		.21		.34		0-1
Work hours (all jobs)	3.62	1.47	3.50	1.63	4.17	1.60	1-8
Self-employment	.06		.07		.04		0-1
Partner's work hours (all jobs)	5.28	1.73	-		3.58	1.87	1-9

[a]1 = *respondent names any personal or family reasons for work schedule*, 0 = *only job-related reasons*

[b]1 = *respondent names any family care reasons for work schedule*, 0 = *only non-care reasons*

Table 2. *Summary of Regression Analysis for Variables Predicting Work-to-family Conflict among Mothers*

Variables	Partnered mothers (N = 267)				Single mothers (N = 117)			
	Model 1		Model 2		Model 1		Model 2	
	B	SE B	B	SE B	B	SE B	B	*SE B*
Partial night work	0.24	0.19	0.18	0.25	0.15	0.29	0.18	0.32
Primary night work	0.21	0.28	0.59	0.40	0.40	0.28	0.56	0.36
Personal reasons	0.09	0.14	0.11	0.16	-0.47	0.23*	-0.37	0.28
Cohabiting	0.18	0.23	0.13	0.24				
Age	-0.16	0.05**	-0.16	0.05**	-0.22	0.06***	-0.22	0.06***
Non-white	-0.23	0.18	-0.24	0.18	-0.33	0.24	-0.28	0.25
SES	0.21	0.06***	0.20	0.06**	0.17	0.09	0.17	0.09
Child under 5	-0.09	0.17	-0.06	0.17	-0.14	0.24	-0.15	0.25
# children under 18 at home	0.03	0.08	0.04	0.08	-0.12	0.13	-0.13	0.13
Any child disability	0.18	0.23	0.20	0.24	-0.10	0.31	-0.11	0.31
Other care	0.44	0.17*	0.43	0.17*	-0.05	0.27	-0.07	0.27
Work hours (all jobs)	0.06	0.05	0.06	0.05	-0.02	0.07	-0.01	0.07
Self-employment	-0.21	0.30	-0.20	0.30	-0.53	0.43	-0.58	0.43
Partner's work hours (all jobs)	-0.02	0.04	-0.01	0.04				
Partial night work * personal reasons			0.14	0.38			-0.02	0.76
Primary night work * personal reasons			-0.70	0.53			-0.42	0.57
Constant	2.00	0.40***	1.97	0.41***	3.44	0.46***	3.39	0.46***
R^2	.169		.176		.216		.220	

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 3. *Summary of Regression Analysis for Variables Predicting Work-to-family Conflict among Fathers*

Variables	Partnered fathers (N = 205)			
	Model 1		Model 2	
	B	SE B	B	SE B
Partial night work	-0.06	0.20	0.30	0.26
Primary night work	-0.08	0.23	0.07	0.27
Personal reasons	0.07	0.17	0.34	0.21
Cohabiting	0.03	0.31	0.06	0.30
Age	-0.11	0.05*	-0.10	0.05*
Non-white	-0.30	0.20	-0.30	0.20
SES	0.12	0.07	0.12	0.07
Child under 5	0.22	0.17	0.25	0.17
# children under 18 at home	-0.10	0.10	-0.12	0.10
Any child disability	0.62	0.23**	0.62	0.23**
Other care	0.41	0.18*	0.39	0.18*
Work hours (all jobs)	0.16	0.05**	0.15	0.05**
Self-employment	-0.27	0.39	-0.25	0.39
Partner's work hours (all jobs)	-0.01	0.04	0.00	0.04
Partial night work * personal reasons			-0.82	0.39*
Primary night work * personal reasons			-0.41	0.46
Constant	2.36	0.46***	2.23	0.46***
R^2	.206		.225	

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 4. *Summary of Regression Analysis for Variables Predicting Life Satisfaction among Mothers*

Variables	Partnered mothers (N = 267)				Single mothers (N = 117)			
	Model 1		Model 2		Model 1		Model 2	
	B	SE B	B	SE B	B	SE B	B	SE B
Partial night work	0.10	0.14	0.34	0.18	-0.06	0.24	-0.15	0.26
Primary night work	-0.09	0.20	-0.65	0.29*	-0.49	0.23*	-0.52	0.29
Personal reasons	0.05	0.10	0.08	0.12	0.09	0.19	0.02	0.23
Cohabiting	-0.51	0.17**	-0.42	0.17*				
Age	-0.10	0.04**	-0.09	0.04**	0.00	0.05	0.01	0.05
Non-white	0.08	0.14	0.08	0.13	0.00	0.19	0.01	0.20
SES	0.09	0.05	0.11	0.05*	0.20	0.07**	0.20	0.07**
Child under 5	-0.09	0.12	-0.16	0.12	-0.03	0.20	-0.02	0.20
# children under 18 at home	0.02	0.06	-0.01	0.06	-0.01	0.11	-0.01	0.11
Any child disability	0.14	0.17	0.09	0.17	-0.07	0.25	-0.05	0.26
Other care	0.02	0.13	0.01	0.13	0.20	0.22	0.19	0.22
Work hours (all jobs)	-0.01	0.04	-0.01	0.04	0.13	0.06*	0.12	0.06*
Self-employment	-0.15	0.22	-0.17	0.22	0.47	0.35	0.48	0.36
Partner's work hours (all jobs)	0.02	0.03	0.00	0.03				
Partial night work * personal reasons			-0.53	0.27			0.50	0.62
Primary night work * personal reasons			1.04	0.38**			0.07	0.47
Constant	3.63	0.30***	3.66	0.29***	2.33	0.37***	2.34	0.38***
R^2	.098		.140		.247		.252	

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 5. *Summary of Regression Analysis for Variables Predicting Life Satisfaction among Fathers*

Variables	Partnered fathers (N = 205)			
	Model 1		Model 2	
	B	SE B	B	SE B
Partial night work	-0.05	0.12	-0.03	0.16
Primary night work	-0.22	0.14	-0.22	0.16
Personal reasons	-0.07	0.10	-0.05	0.13
Cohabiting	-0.58	0.18**	-0.58	0.19**
Age	-0.11	0.03***	-0.10	0.03***
Non-white	-0.11	0.12	-0.11	0.12
SES	0.14	0.04***	0.14	0.04***
Child under 5	-0.06	0.10	-0.06	0.11
# children under 18 at home	0.04	0.06	0.04	0.06
Any child disability	-0.18	0.14	-0.18	0.14
Other care	0.14	0.11	0.14	0.11
Work hours (all jobs)	-0.07	0.03*	-0.07	0.03*
Self-employment	-0.57	0.23*	-0.57	0.24*
Partner's work hours (all jobs)	0.02	0.03	0.02	0.03
Partial night work * personal reasons			-0.05	0.24
Primary night work * personal reasons			0.01	0.28
Constant	3.96	0.28***	3.95	0.28***
R^2	.333		.333	

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 6. *Selected Coefficients from Regression Analysis for Variables Predicting Work-to-family Conflict and Life Satisfaction*

	Panel A: Work-to-family Conflict											
	Partnered mothers (N = 267)				Single mothers (N = 117)				Partnered fathers (N = 205)			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Variables	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B
Partial night work	0.25	0.19	0.23	0.22	0.24	0.30	0.16	0.32	-0.05	0.20	0.08	0.23
Primary night work	0.22	0.28	0.34	0.36	0.42	0.28	0.37	0.34	-0.08	0.23	-0.03	0.27
Care reasons	0.05	0.15	0.05	0.17	-0.16	0.24	-0.25	0.29	-0.02	0.18	0.13	0.23
Partial night work * care reasons			0.09	0.42			0.69	0.90			-0.49	0.43
Primary night work * care reasons			-0.26	0.54			0.15	0.60			-0.23	0.47

	Panel B: Life satisfaction											
	Partnered mothers (N = 267)				Single mothers (N = 117)				Partnered fathers (N = 205)			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Variables	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B
Partial night work	0.10	0.14	0.20	0.16	-0.06	0.24	-0.14	0.25	-0.05	0.12	-0.12	0.14
Primary night work	-0.08	0.20	-0.49	0.26	-0.48	0.23*	-0.52	0.27	-0.22	0.14	-0.22	0.16
Care reasons	0.00	0.11	-0.01	0.12	0.10	0.20	0.02	0.23	-0.02	0.11	-0.09	0.14
Partial night work * care reasons			-0.40	0.30			0.70	0.73			0.25	0.26
Primary night work * care reasons			0.91	0.39**			0.11	0.48			0.03	0.29

*p < .05. **p < .01. ***p < .001.

Note: All coefficients described in the Method section were controlled in these models.
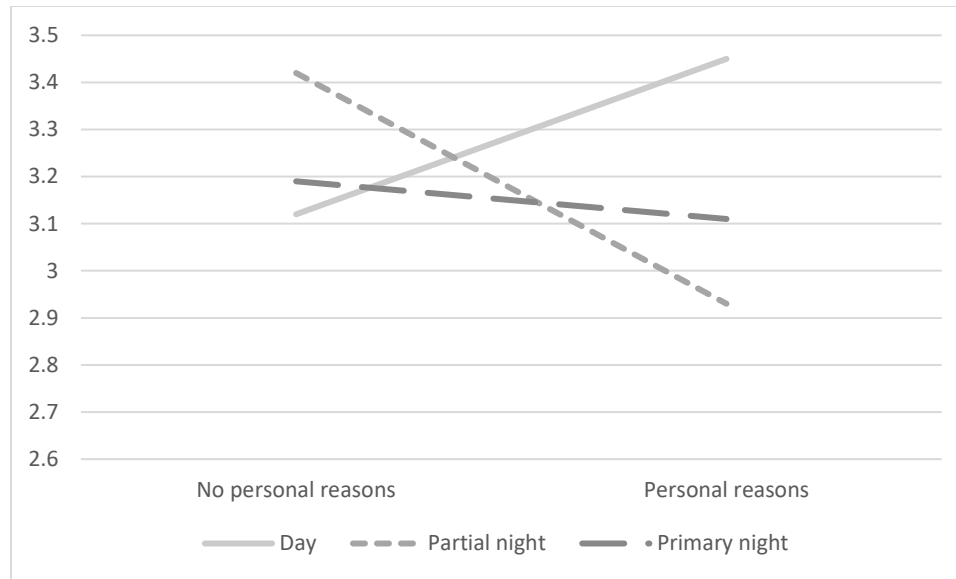
Figure 1: Adjusted means of work-to-family conflict for partnered fathers
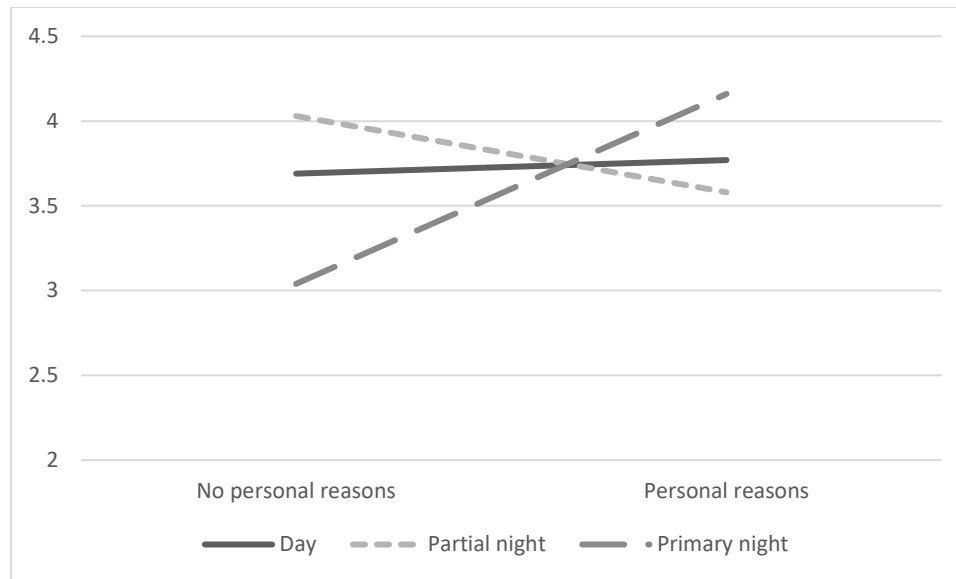
Figure 2: Adjusted means of life satisfaction for partnered mothers

Table A1. *Selected Coefficients from Regression Analysis for Variables Predicting Work-to-family Conflict and Life Satisfaction among Parents Employed 21 or More Hours per Week*

	Panel A: Work-to-family Conflict											
	Partnered mothers (N = 237)				Single mothers (N = 102)				Partnered fathers (N = 193)			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Variables	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B
Partial night work	0.24	0.19	0.15	0.26	0.17	0.31	0.17	0.34	-0.04	0.21	0.34	0.27
Primary night work	0.35	0.29	0.62	0.40	0.57	0.33	0.70	0.41	-0.01	0.24	0.13	0.28
Personal reasons	0.07	0.15	0.07	0.18	-0.50	0.26	-0.44	0.32	0.11	0.17	0.39	0.22
Low night work * personal reasons			0.19	0.39			0.10	0.81			-0.84	0.40*
High night work * personal reasons			-0.54	0.56			-0.38	0.70			-0.39	0.49

	Panel B: Life satisfaction											
	Partnered mothers (N = 267)				Single mothers (N = 117)				Partnered fathers (N = 205)			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Variables	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B
Partial night work	0.11	0.14	0.28	0.19	-0.03	0.23	-0.11	0.26	-0.04	0.12	-0.02	0.16
Primary night work	-0.16	0.22	-0.69	0.29*	-0.51	0.24*	-0.51	0.30	-0.29	0.14*	-0.27	0.17
Personal reasons	-0.05	0.11	-0.04	0.13	-0.09	0.19	-0.16	0.24	-0.12	0.10	-0.10	0.13
Low night work * personal reasons			-0.37	0.29			0.56	0.60			-0.06	0.24
High night work * personal reasons			1.10	0.41**			-0.02	0.52			-0.04	0.29

*p < .05. **p < .01. ***p < .001.

Note: All coefficients described in the Method section were controlled in these models.

Table A2. *Selected Coefficients from Regression Analysis for Variables Predicting Work-to-family Conflict and Life Satisfaction, Unaltered Responses about Shift Start and End*

	Panel A: Work-to-family Conflict										
	Partnered mothers (N = 267)				Single mothers (N = 117)				Partnered fathers (N = 205)			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Variables	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B
Partial night work	0.02	0.20	-0.21	0.28	0.11	0.29	0.18	0.32	-0.14	0.21	0.26	0.26
Primary night work	0.16	0.28	0.55	0.40	0.28	0.29	0.57	0.36	-0.25	0.24	-0.08	0.29
Personal reasons	0.09	0.14	0.07	0.16	-0.47	0.23*	-0.29	0.28	0.07	0.17	0.35	0.20
Low night work * personal reasons			0.46	0.40			-0.10	0.76			-1.01	0.41*
High night work * personal reasons			-0.76	0.54			-0.86	0.62			-0.48	0.47

	Panel B: Life satisfaction										
	Partnered mothers (N = 267)				Single mothers (N = 117)				Partnered fathers (N = 205)			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Variables	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B	B	SE B
Partial night work	-0.01	0.15	0.21	0.20	-0.04	0.24	-0.14	0.26	-0.10	0.13	-0.03	0.16
Primary night work	-0.12	0.21	-0.67	0.29*	-0.42	0.24	-0.52	0.30	-0.29	0.14	-0.35	0.17*
Personal reasons	0.06	0.11	0.06	0.12	0.07	0.19	-0.05	0.23	-0.06	0.10	-0.04	0.12
Low night work * personal reasons			-0.44	0.29			0.56	0.63			-0.20	0.25
High night work * personal reasons			1.04	0.39**			0.28	0.51			0.20	0.28

*$p < .05$. **$p < .01$. ***$p < .001$.

Note: All coefficients described in the Method section were controlled in these models.