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By

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ABSTRACT

WHEN MOMMY AND DADDY GET: THE IMPACT OF INCOME ON PARENT-CHILD INTERACTIONS FOR SHIFT WORK AND NONSHIFT WORK PARENTS.

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This paper examines the impact of income and shift work on parent-child interaction so as to understand how income and a challenging work arrangement affect familial time poverty. Specifically, I study the parent-child interactions of shift work and nonshift work parents in married dual-earner households across the income spectrum. I analyze data from the first wave (1987-88) of the National Survey of Families and Households to determine effects of shift work and income, independent of and interacting with each other, on the odds that parents will spend time with their children during meals and other activities. My findings suggest that shift work parents in married dual-earner households are as likely to spend time with their children as nonshift work parents in married dual-earner households across all income levels.

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Introduction

A debate rages on in public, political, and academic spheres over whether changes in American families are strengthening or weakening the family as a social institution. At the core of the debate, and often the measure that journalists, pundits, and academics cite as support to this argument, is how much time parents spend with their children.

In academia, and in particular Sociology, the question of how much time parents spend with their children is a well-covered topic, yet sociological research on the subject reveals contradictory answers. Demographic trends such as increases in employment hours for both men and women, along with greater tensions in family relations, are all cited as sources for decreases in parental time with children (Preston, 1984; Presser, 1989; Schor, 1992; Hocschild, 1997). However, while these sources result in more familial "time poverty," more parental hours at work do not necessarily translate into less parental time with children. Parents have various avenues to pursue in order to make time for their children, and some scholars argue that parents most often sacrifice leisure time and sleep to do just that (Sayer et al, 2004; Sandberg et al., 2001; Bianchi et al., 2006).

The debate over parental time with children occurs in a number of different approaches such as analysis of historical trends within the family, changes in family formations, work patterns, challenges particular to low-income families, etc. The terrain of this topic is expertly plotted, yet how income might influence parent-child interactions in a particularly challenging work schedule,

such as shift work, is overlooked. Income is an important factor to include in the analysis of parent-child interactions between shift workers and nonshift workers so to understand how income and time poverty intermesh and play out in the daily lives of families.

Literature Review

Parents' Time: Something Has Got to Give

Societal concerns regarding the amount of time parents spend with their children, and in turn debates of whether parents spend enough time with children, appear as natural concerns. Yet, why do we assume parental time with children is important? Why should we care whether little John or Jane sees his or her parents more than a couple of hours a week? Do parent-child interactions really make a difference?

In fact, social research demonstrates that parental interactions with children do matter. Parent-child interactions have been shown to play a major role in a child's development both intellectually and emotionally (Hofferth, 1998). Moreover, research by Nock and Kingston (1988) and Pleck (1997) illustrate the connection between parental time and the well being of children, solidifying our natural assumptions into sociological knowledge. As sociologists confirm the importance of parent-child interactions for the well being of children, attention turns to how much time parents are spending with their children.

Apprehensions of familial time poverty due to increases in parental paid work, specifically those children might be getting the short-end-of-the-stick

spread throughout 1980s. Demographers who examined parental paid work in the United States during the 1980s concluded that parents who were facing time poverty did spend less time with children (Preston, 1984; Presser, 1989). In the early 90s, Julie Schor (1992) published *The Overworked American*, again demonstrating large increases in American paid work, arguing that Americans are time poor. She further argued that such time poverty wreaks havoc on our lives, including our families. While Schor's research started a hot debate surrounding work trends, her research also supported those who argue that increases in parental paid work decrease parental time with children. In continuation of this research, Hochschild (1999) qualitatively explored parental paid work and its relationship to family life in her book *The Time Bind.* Hochschild argues that parents spend more time at work rather than at home because family life is increasingly stressful and emotionally strained whereas work life is increasingly supportive and affirming. This switch between the worlds of work and home reduces parental time with children. While parents report feelings of guilt regarding less time with their children, they maintain high time commitments to paid work. This thread of research centered on increases in parental paid work, concludes that parents spend less time with their children due to demographic increases in paid work. However, this conclusion has been hotly debated among social scientists with alternative conclusions drawn regarding parental time with children.

Whether Americans work more paid hours is the first proposition that is debated in the argument that increases in parental paid work result in decreases in

parental time with children. A closer inspection of paid work reveals a more complicated story for American work trends. Although some Americans are indeed working more hours, others are not (Robison and Godbey, 1996; Jacobs and Gerson, 1997). Moreover, in examining work hours based on family formations, Jacobs and Gerson (1997) report that dual-earner and single-parent households are particularly susceptible to time poverty. Differences in paid work hours across family formations are an important consideration when considering time poverty among families. In addition and contrary to Hochschild's results, Jacobs and Gerson (1997) find that parents want to spend less time at work in order to spend more time with their children. This research on paid work hours indicates that the presumed inverse relationship between time in paid work and time with children cannot be generalized to all workers who have dependent children.

That parental time with children is decreasing because of increases in parental paid work is a second proposition debated among social scientists. Many scholars contest zero-sum measures that equate increases in parental paid work with decreases in parental time with children (Bianchi et al., 2006). Analysis of historical trends finds that parents and children spend the same amount of time, if not more, with each other. Sandberg and Hofferth (2001) find that the time American children spend with parents did not decrease between 1981 and 1998 and actually increased for dual-earner families. Similarly, Sayer, Bianchi, and Robinson (2004) find that it increased between 1965 and 1995. In addition to historical trends of parental time with children, scholars advocate for "time-

deepening" studies that holistically examine various and multiple ways in which people spend their time rather than focusing on one dimension of time (Bianchi et al., 2006). Bianchi, Robinson, and Milkie (2006) again find overall parental time with children has not decreased over the past few decades. Rather than cutting down on time with children, these researchers find that parents are spending a lot less time on household labor, civic pursuits, and together, household labor being by far the largest decrease. This thread of research illustrates the complex nature of time poverty and its impact on families.

But what about particularly challenging work arrangements? How might parents working night shifts make time for their children when nights are largely when children are at home? Additionally, how might income impact familiar time poverty in challenging work arrangements, such as shift work? I review the literature on these questions in the following section.

The Challenge of Shift Work

The amount of parental paid work is at the center of debates on familial time poverty. Yet the hours of the day *when* parents are working are equally important for understanding familial time poverty, particularly parental time with children. "Shift work," defined as the majority of weekly paid work hours outside of 8 AM and 4 PM (Presser, 2003), is increasing popular among parents, as well as the population at large. It means that parents often work during evening and night hours. Increases in the prevalence of shift work are accounted for by a number of factors. Presser (2003) argues that the rapid increase in shift work is a

result of changes in the economy, demography, and technology; specifically, to booming service sector, demand for entertainment and recreation during evening and night hours, and new technologies, such as email, all of which contribute to workers being "on call" all hours of the day. Together these structural changes result in an extension of the workday, thus more shift work. In turn, we see changes in the segment of the day that parents work.

More parental shift work and the resultant increase in evening and night hours result in parental work arrangements that run counter to children's school schedules. This conflict between the schedules of shift work parents and school-aged children impacts parental time with children. In-depth qualitative studies illustrate how shift-work parents construct opportunities to spend time with their children. Specifically, Garey (1999) finds that female nurses in shift work schedules are able to maximize time for traditional maternal tasks with children by manipulating their schedules. In addition, Tubbs et al (2004) finds that low-income shift-work mothers construct time with their children within the time and financial parameters available to them. This research suggests that shift-work mothers are often successful in setting aside time to spend with their children.

While these findings present a positive picture of shift-work parents' ability to balance work and children, quantitative studies comparing shift-work and nonshift-work parents indicate the former spend less time with children. Using time-diary data, Nock & Kingston (1988) find that parental shift work results in less time spent with children when compared to parental nonshift work. Phillips (2002) discovers mixed effects in parental involvement for shift work

parents with children six to eleven. Shift work parents are more involved in children's schoolwork, but less engaged in extracurricular activities than nonshift work parents. Presser (2003) finds that shift work parents spend less time with children than nonshift work parents in a number of different activities, such as eating breakfast and dinner, having private talks, working on projects, etc. This research suggests that while shift work parents may be successful in making time for children, they are less successful than are nonshift work parents. In order to tease out the relationship of shift work and parental time with children, though, it is important to examining other factors that may play a role in familial time poverty.

Time Poverty: Does Income Play a Role?

Prior research demonstrates the significance of when parents work for the time families spend together. However, scheduling incompatibility of work with family time is not the only factor that likely influences familial time poverty. The role income plays in time poverty is a complex relationship that begins with parent-child interaction. In *Unequal Childhoods: Class, Race, and Family Life*, Lareau (2003) illustrates the sharp class differences in the time parents spend with the children, both in the type of activities and the intensity of the interaction. Lareau's examination of class differences in parental time with children has implications for various dimensions of class. While class is an abstract concept drawing from cultural, material, and ideological differences, income is a concrete

material difference that leads to class distinctions. Therefore, income is related to differences in parental time with children.

How income is related to familial time poverty is under debate within Sociology. There are three possible connections. First, those higher up in the occupational hierarchy can face multiple complex responsibilities requiring long work hours beyond the traditional eight-hour day shift. The structure of the job creates both a high income and a constraint in making time for children (Jacobs and Gerson, 1999). In other words the relationship between high income and familial time poverty is held to be spurious. Second, higher income can reduce familial time poverty if it is used to hire a housekeeper or an au pair or to purchase laborsaving devices and services (e.g., microwave ovens, take-out meals). Third, familial time poverty can reduce income if highly paid professionals (usually married mothers) ease the time squeeze by quitting their jobs to become full-time homemakers (Moen, 2008, Stone, 2007). Since most studies of the connections between labor force participation and time spent with children have not included both high-income and low-income families, the relationship between income and familial time poverty is currently unknown.

Shift Work and Income In Conjuncture: Its Impacts

Given the associations of shift work and income with familial time poverty, examining the interactions among these factors is a reasonable next step. Most research on shift work approaches income as either a characteristic of shift work or a sample of interest. Scholars examine the income bracket in which shift

workers are more likely to be, or they focus solely on low –income families because shift work is likely to correspond to low-wage jobs. For example, Presser (2003) establishes a relationship between shift work and low-wage jobs through an analysis of the top ten occupations in shift work and earnings by shift workers versus nonshift workers. She concludes that shift workers do not earn more than nonshift workers. In the second vein of research, scholars often choose to study family outcomes of parental shift work in low-income families (Perry-Jenkins, 2004; Heyman, 2000; Tubbs et at, 2004; Roy et at, 2004; Rubin, 1994). Therefore, prior research on shift work and income has significantly contributed to our understandings of how these two factors interact but remains incomplete. What is lacking are studies that include the broad spectrum of parental wages. Therefore, the purpose of the current study is to re-examine the interrelationships of shift work and the frequency of parent-child interactions by type of activity for parents irrespective of occupational status.

Research Questions

This study extends current research on shift work and parent-child interactions by including the possible interaction between shift work and income. While shift work is disproportionately represented in low-wage jobs, it is not confined to these jobs. Shift work occurs in a wide spectrum of income levels and may have a differential impact on parent-child interactions depending on income level. Specifically, this paper analyzes how income affects parent-child interactions among shift workers and nonshift workers.

I anticipate that parents in shift work spend less time with children compared to nonshift work parents (Hypothesis 1). In addition, I anticipate that income is associated with the amount of time parents spend with their children in a number of activities (Hypothesis 2). Finally, I hypothesize that a low-income shift-work parent will spend less time with children than either a higher-income shift-work parent or a low-income nonshift work parent (Hypothesis 3).

Data and Methods

I use sequential logistic regression models to explore the impact of shift work and the interaction of shift work and income on parent-child interactions: particularly the likelihood that parents in shift work versus nonshift work participate in various activities with at least one of his/her children including eating meals, private talks, etc. These analyses utilize data from a nationally representative sample, the National Survey of Families and Households (NSFH). This study examines data from the first wave in 1987-88 (Sweet et al., 1988) rather than more recent second and third waves because the first wave contains the largest number of children, ages 5 to 18. As the National Survey of Families and Households is a longitudinal study, most children in the first wave were over age eighteen by the later waves. The NSFH is well suited to test the three hypotheses, as it contains questions regarding work schedules, couple wages and salary, and, frequency and type of parent-child interactions. Given that this data set contains information collected from household members ages 19 and older,

information on parent-child interactions is reported from the perspective of the parent rather than the child.

I limit my analytic sample to parents who are married with at least one child between the ages of five through eighteen living in the home. In addition, I only include parents who worked at least fifteen hours in the last week if their spouse also worked fifteen hours or more in the last week. I focus on married dual-earner couples for two reasons. First, these families are the most common formation in the United States today accounting for 54% of all couples in the U.S. in 2001 (U.S. Census Bureau, 2000). Secondly, and perhaps more importantly, dual-earner couples are arguably the most time starved family formation (Jacobs and Gerson, 1997). In order to understand the effect that shift work may have on parent-child interactions, it makes sense to start with the most time starved family form when looking at how income affects time with children. The sample is also limited to those individuals who filled out the parent-child interactions questions in the at-home questionnaire. Sensitivity tests suggest that parents who did not complete the questionnaire are not markedly different from those who did. The resultant dataset contains information on 1,032 individuals, of which 7% worked nonstandard shifts in the last week.

Logistic regression models are used to predict the likelihood of each outcome controlling for relevant covariates. These models are run in SPSS using NORREG. Each model estimates the odds of scoring a "1" on the dependent variable, such as breakfast (i.e. eating breakfast with at least one child two or

more days per week) relative to scoring a "0" (i.e. eating breakfast with at least one child less than two days per week).

Measures of Model Predictors and Covariates

Table 1 defines the measures of predictors and covariates. This study utilizes Harriet Presser's definition of shift work, which is modeled from the Bureau of Labor Statistics (U.S. Department of Labor, 1981). According to the Bureau of Labor Statistics, nonshift work or a fixed-day schedule is one in which at least half the hours worked most days in the prior week fall between 8 A.M. and 4 P.M. Shift work schedules are those in which the majority of weekly work hours fall outside of 8 A.M. and 4 P.M.

Presser and the Bureau of Labor Statistics differentiate various shift work schedules including fixed evening, fixed night, and rotating schedules. Although Presser argues that these different shifts affect parent-child interactions in various ways, the number of individuals within these data who work each of these shifts is very small, fewer than six percent in each category. In order to gain more statistical power, I collapsed evening, night, and rotating shifts to create one measure of shift work. As a result, 15% of the sample were engaged in a shift work arrangement.

As the analytic sample consists of married, dual-earner parents, I measure household income using the couple's wages and salary. This measure is appropriate as both spouses are contributing income to the family budget and presumably have access to one another's monetary contributions. As is

commonly a problem with measures of income, this variable is missing in seven percent of cases.

Table 1. Description of Independent Variables Used in the Analysis

Variable Name	Definition	Mean/ Proportion
Work Status (N=985)		
Shift Work (D)	Majority of work hours are outside of 8 AM and 4 PM	0.15
Non-Shift Work (D) (R)	Majority of work hours are between 8 AM and 4 PM	0.85
Household Income Level (N=1031)		
High Income (D)	Greater than or Equal to $48,755.56	0.26
Middle-High Income (D)	Less than $48,755.56 and Greater than or Equal to $36,493.35	0.22
Middle-Low Income (D)	Less than $36.493.35 and Greater than or Equal to $24,000.00	0.29
Low Income (D) (R)	Less than $24,000.00	0.13
Demographic Covariates		
Sex (N=1032)		
Male (D)	Self-identified as male	0.49
Female (D) (R)	Self-identified as female	0.51
Race (N= 1030)		
White (D)	Self-identified as White	0.76
Non-White (D) (R)	Self-identified as Black, Hispanic, Asian, or Other	0.24
Education (1031)		
Less than High School Diploma/GED (D)	Eleven years of education or less	0.12
High School Diploma/GED (D) (R)	High school diploma or GED	0.44
More than High School Diploma/GED (D)	Education beyond a high school diploma or GED	0.44
Young Children (1032)		
Children under Four at Home (D)	Children under the age of four in the home	0.3
No Children under Four at Home (D) (R)	No children under the age of four in the home	0.7
Number of Children (1032)		
Three or More Children at Home (D)	Three of more children in the home	0.32
Two or Fewer Children at Home (D) (R)	Two or less children in the home	0.68
Number of Work Hours in Past Week (N=1032)	Number of hours worked in the past week	40.98

Notes: (D) Dichotomous;
(R) Reference Category

In order to reduce the number of cases with missing data, I used individuals with valid data on education and household income to impute data on the latter variable, when the data on household income were missing. The imputation resulted in only missing one person, consistent with the number of people missing within the educational variable. Thereafter, I collapsed household income into categories of high-income (equal or above $48,755.56) middle-high income (between $48,755.55 and $36,493.35), middle-low income (between $36,493.34 and $24,000), and low income (below $24,000) based on couples' wages and salary quartiles.

In addition, the models include controls for demographic characteristics that are known to affect the frequency and type of parent-child interactions, as well as the likelihood of shift work. First, respondent's sex is included, coded as a binary variable (1=men, 0=women). Prior research finds that family activities are gendered, as men participate in active care at higher rates than passive care (Noonan, 2001). Secondly, respondent's race is included coded as a binary variable (1=White, 0=Non-White). This variable is collapsed because there are not enough cases in each racial/ethnic group to make more precise distinctions. Whites account for the largest percentage (75.9%) followed by Blacks at 14.6%. Other racial groups were much smaller including American Indians at 0.3%, Asians at 1.2% Mexican/Chicano/Mexican-Americans at 6%, Puerto Ricans at 0.6%, Cubans at 0.4%, and other Hispanics at 0.9%. In order to compare racial backgrounds in any meaningful way it is necessary to combine minority racial groups into the broad group of non-White. Thirdly, completed education of the

respondent is included coded dummy variables including, high education (1=More education than a high school diploma/GED) and low education (1=Eleven years of education or less). High school diploma/GED is the excluded and thus comparative category for these variables.

In addition, measures of household composition are included. I assess whether there are any children under the age of four in the household (1=at least one child four and under in the home, 0=no children under the age of four in the home). The number of children in the home is also included as a binary variable (1=three or more children in the home, 0=two or fewer children in the home). Note that the number of children includes children from the ages of 0 to 18. Aside from these family composition measures, I include a measure of the number of hours the respondent worked in the past week. This is included as a continuous measure ranging from fifteen to ninety-five hours worked in the last week. Given that there are only twenty-four hours in a day, the number of hours parents spend on the job is going to impact the amount of time he/she has for children, regardless of the type of work he/she does.

Measures of Model Outcomes

Measures of parent-child interactions within this study focus on parent-child meals and activities where a parent spends time with at least one child over the age of five in these various interactions. A full coding description of the measures of model outcomes is presented in table 2. These measures make use of six questions, two regarding meals, four regarding other activities. Questions

regarding parent-child meals are coded on an 8-point scale, indicating the number of days that a meal was shared between the responding parent and at least one child over the age of four.

Table 2. Description of Dependent Variables Used in the Analysis

Variable Name	Question/Definition	Mean/ Proportion
Parent-Child Breakfast (N=987)		
Two or More Mornings at Week (D)	"How many days last week did you eat breakfast	0.44
Less than Two Mornings a Week (D) (R)	with at least one of your children over the age of five?"	0.56
Parent-Child Dinner (N=993)		
Seven Evenings a Week (D)	"How many days last week did you eat dinner	0.5
Less than Seven Evenings a Week (D) (R)	with at least one of your children over the age of five?"	0.5
Parent-Child Leisure Activities Outside the Home (N=1027)		
Several Times a Week or More (D)	"How often do you spend time with the children	0.5
Less than Several Times a Week (D) (R)	in leisure activities away from home (picnics, movies, sports, etc)?"	0.5
Parent-Child Play Time (N=1029)		
Almost Everyday (D)	"How often do you spend time with the children	0.51
Several Times a Week or Less (D) (R)	at home working on a project or playing together?"	0.49
Parent-Child Private Talks (N=1010)		
Almost Everyday (D)	"How often do you spend time with the children	0.42
Several Times a Week or Less (D) (R)	having private talks?"	0.58
Parent-Child Reading or Homework (N=1026)		
Almost Everyday (D)	"How often do you spend time with the children	0.59
Several Times a Week or Less (D) (R)	helping with reading or homework?"	0.41

Notes: (D) Dichotomous;
(R) Reference Category

Possible responses range from zero to seven days in the last week. Responses to questions regarding the frequency of other parent-child activities are based on a 6-point scale, indicating the responding parent and at least one child over the age of

four engaged in these activities "never or rarely," "once a month or less," "several times a month," "about once a week," "several times a week," and "to almost everyday.

Responses to all of these questions are heavily skewed. For example, most parents eat breakfast with at least one of his/her children less than two days a week. Conversely, most parents eat dinner everyday with at least one of his/her children. Therefore, I collapsed these variables into binary variables with approximately half of the respondents fall into each category.

Sample Descriptives

Among respondents in the data set, shift work occurs throughout the income spectrum. Shift work is equally likely across the income spectrum for parent in low income households: 21.4% of shift work parents are in low income households, compared to 31.7% of shift work parents in middle-low income households, 20.7% of shift work parents in middle-high income households and 26.2% of shift work parents in high income households. While this runs counter to previous research that shows shift work disproportionate in low-wage jobs, it may be the result of using couple's income rather than individual income measures. Perhaps the addition of spousal income is responsible for the increased diversity in income for shift workers.

Shift work is slightly more common among men compared to women– 15.1% of men compared to 14.4% of women working in nonstandard arrangements- but this difference is not significantly different at the .05 level.

Shift work is slightly more common among Non-Whites compared to Whites – 13.5% of Whites compared to 18.2% of non-Whites engage in shift work arrangements – although not significantly different at the .05 level. Shift work is not significantly related to either the presence of young children in the home or with the number of children in the home. Shift work is not more common among parents with young children at home: 29.7% of shift work parents with young children in the home compared to 29.9% of nonshift work parents with young children in the home. Shift work is also not more common among parents with three or more children in the home compared to two or fewer children: 37.9% of shift work parents have three or more children in the home compared to 31.2% of nonshift work parents with three or more children in the home.

In these data there are significant associations between education and parent's weekly hours. Nonshift work parents are considerably more likely to have education beyond high school and work more hours than shift work parents. Nearly 90% of nonshift work parents have education beyond a high school diploma or GED compared to 82.3% of shift work parents. Moreover, nonshift work parents work more hours during the week compared to shift work parents. Nonshift work parents work an average of 42.88 hours a week compared to shift work parents who work an average of 40.03 hours a week.

Findings

Employed respondents were significantly more likely to eat dinner seven nights per week with at least one child over age five if they were not doing shift

work than if they were in shift work (52% v. 41%; Table 3). On the other hand, the majority of both groups of parents ate breakfast fewer than two mornings per week with at least one child over age five, and this tendency was somewhat stronger for nonshift work parent than shift work parents (58% v. 51%; Table 3).

Table 3. Bivariate Percentages of Dependent Variables

Parent-Child Meals	All Parents	Shift Work Parents	Nonshift Work Parents
Parent-Child Breakfast (N=985)			
Two or More Mornings at Week (D)	43%	49%	42%
Less than Two Mornings a Week (D) (R)	57%	51%	58%
Parent-Child Dinner (N=985)			
Seven Evenings a Week (D)	51%	41%	52%
Less than Seven Evenings a Week (D) (R)	49%	59%	48%

Notes: (D) Dichotomous;
(R) Reference Category

A closer inspection of how shift work and the covariates predict the odds of eating dinner with a child over age five is found in a logistic regression (Table 4, see Appendix). Being a man and working long hours significantly reduce the odds of nightly dinner with child. But even after these covariates are controlled, a shift worker is only 58% as likely as a nonshift worker to have that nightly dinner. A long number of working hours reduce the odds that a parent will eat breakfast with a child at least two mornings weekly (OR=.98; Table 5, see Appendix). But shift workers and nonshift workers have even odds of doing so (OR=.76, not significant; Table 5). Therefore Hypothesis 1 is rejected for the meal of breakfast, but not for dinner. This finding reflects the temporal ridgedness of dinner. Dinner can only occur during a small window within the day, a window that shift work parents miss more often due to evening and night hours.

Income did not prove to have a significant relationship with the likelihood of eating either breakfast or dinner with children (Table 4 and 5). Thus, Hypothesis 2 is rejected for eating breakfast and dinner with children. Parents with low household income are just as likely to eat dinner every night with children than parents with high household incomes. In addition, Hypothesis 3, that states an interaction between shift work and income will prove to be a significant predictor of a parent's time with children, is also rejected for parental time eating breakfast and dinner with children (see bottom of Tables 4 and 5). This is not surprising as one of the variables, income, has no independent impact on breakfast and dinner.

Among the covariates, sex of the parent proves to be significant for breakfast until weekly work hours is introduced into the model. Men are 30% less likely than women to eat breakfast with children at least two mornings weekly (Table 5). However, when weekly work hours are introduced into Model 3 to form Model 4 (Table 5), the effect of sex disappears. This indicates that while men are less likely than women to eat breakfast at least two days a week with their children, this sex difference is actually a function of men working more hours than women.

In addition to sex, parental education is significantly related to the likelihood of eating breakfast with at least one child over age five two or more times a week. Parents with education beyond a high school diploma or GED are 1.41 times as likely to eat breakfast two or more times a week with at least one child over four than are parents with a high school diploma/GED, regardless of

other variables added into the model (see last model, Table 5). This finding contradicts the 'time poverty' idea that more highly educated respondents would have heavier job commitments that would conflict with time to spend with children. Perhaps more educated parents have job schedules that allow them to report to work later in the morning (10 AM instead of 8 AM) which would facilitate breakfast with at least one child at least two mornings per week.

There is no relationship between shift /nonshift work and leisure activities outside the home with children, playing with children, private talks with children, and helping children with homework or reading (Tables 6, 7, 8 and 9, see Appendix). Thereby, Hypothesis 1, which states that a shift work parent will spend less time with children than a nonshift work parent, is rejected for all four parent-child activities.

Contrary to Hypothesis 2, income is unrelated to these four activities, except for help with homework and/or reading, where a parent from a middle-low income household is 1.56 times as likely as one from a low-income household to engage in this activity with a child (Model 8, Table 9). This finding is surprising as income is not significant on any other parent-child activities. Perhaps parents in middle-low income households put greater priorities on helping children with reading and homework than in lower-income households as a way of encouraging upward mobility. Hypothesis 3, which states that an interaction between shift work and income will prove to be a significant predictor of a parent's time with children, is rejected for all four parent-child activities.

Among the covariates, parental sex proved to be significantly related to parent-child activities. Men have lower odds than women of engaging in play (OR=.76) in table 8, private talks (OR=.35) in table 7; and help with reading or homework (OR=.37) in table 9 with at least one child over the age of five on a daily basis. Similar to breakfast and dinner, parental sex differences in play with children is a function of parental weekly work hours rather than parental sex. When parental weekly work hours are introduced into the model of parental play with children, the effect of sex disappears (compare Models 3 and 4; Table 8). This indicates that while men are less likely than women to play with their children, this sex difference is actually a function of men working more hours than women. In addition to sex, parental race is significantly related to the likelihood of helping at least one child over five with reading or homework. White parents are 58% less likely to help at least one child over five with reading or homework on a daily basis than Non-White parents. This finding indicates that Non-White parents are taking more responsibility for their children's success in school upon themselves compared to White parents, perhaps as a strategy for intergenerational upward mobility. Not surprisingly, parents with more than three children are 28% less likely than parents with two or less children to engage at least one child over four in daily private talks. The more children parents have the less time they have for any one child and it seems the less time they have for private talks.

Discussion

This paper seeks to contribute to the debate of familial time poverty, specifically parental time with children. Given increases in work demands of parents, and especially shift work parents, which often translates into increases in paid work hours, are parents spending less time with their children? This paper participates in the larger discussion of familial time poverty by examining how income might influence parental time with children in the particularly challenging work schedules of shift work. Including shift work and income, two factors that play a role in parental time with children, enriches the research on familial time poverty.

Findings from multivariate logistic regression models reveal little evidence of relationships between shift work, income, or interactions between shift work and income and the frequency that parents will engage in various parent-child interactions. What did prove to be significant were relationships between parental shift work and eating dinner nightly and income and helping children with homework and/or reading. While these findings demonstrate impacts of shift work and income, their influence is hardly ubiquitous.

Moreover, interactions between shift work and income proved unrelated to all parent-child interactions. When considering that shift work and/or income did not independently impact most parent-child activities, it is not surprising when an interaction between shift work and income does not occur. However, even when shift work or income is significantly related to two parent-child activities, there are no interactions between these two variables. Although parental shift work

significantly impacts the likelihood of eating dinner with at least one child over five every night, parental household income is not significantly related. Shift work decreases the likelihood of parents eating dinner with at least one child every night equally across the income spectrum. However, parental likelihood of engaging children in play is more complex because income is only significantly related to parental likelihood of engaging children in play when shift work is also in the model, yet the interaction of shift work and income is not significant.

Overall, shift work parents are as likely as nonshift work parents to spend time with their children. In addition, parents in high-income households are no more likely to spend time with their children than parents in low-income households. These findings suggest that shift work parents do not appear more vulnerable to time poverty as they spend as much time with children as do nonshift work parents. Similarly, parents with lower household incomes do not appear more vulnerable to time poverty as they spend as much time with children as do parents with lower household incomes.

From these results, shift work married parents in dual-earner households are as likely as nonshift work married parents in dual-earner households to spend time with their children. Shift work, a challenging work arrangement, and income do not largely influence parental time with children. These findings support the work of Bianchi, Robinson, and Milkie (2006) in that parents make time for their children regardless of extraneous pressures; even ones as daunting as work schedules and money.

Future Directions for Research

Who is included and at the center of research samples regarding familial time poverty is an important consideration for future research. This study examined only one family formation to avoid emphasis on comparisons between family formations rather than on work and income. However, research with emphasis on diverse family formations is needed to explore theses issues in a broader context. Dual-earner married couples are important to these research questions but so are dual-earner cohabitating couples, single parents, and so on. In addition to diverse family formations, research on current data sets is crucial to furthering our understanding of familial time poverty. This paper used an older data set for methodological reasons. However, shift work is ever increasing in its prevalence so more research using more current data is needed.

Moreover, future research may benefit from a dataset that is child-centered, assessing how much time parents spend with children from the child's perspective. This would be especially important when expanding research on parent-child interactions to family time in general or time spent with various family members. Given data from a child's perspective, examining the dyadic relationship between partners, married and otherwise, would be easier to accomplish. If one partner is working out-of-sync with a child's schedule, the other partner may be adapting in ways we cannot understand using this data in order to accommodate the family. A child's perspective would also be important to connect parent-child interactions with child outcomes. Perhaps the quality of parent-child interactions is different when parents spend time with one child

versus two. Asking individual children how much time they spend in the company of parents and siblings would give us a better understanding of these interactions and implications for child outcomes. A child-centered survey would also be helpful in understanding how the child's status as a biological, adopted, or stepchild might affect parent-child interactions.

As in the work by Bianchi, Robinson, and Milkie (2006), examining a number of activities of parents and children in order to gain a more complete understanding of time usage, or "time deepening," is important when teasing out the many factors in familial time poverty. "Time deepening" is an extensive project to take on in a research project, but scholars who do get an enriched picture of family time. This paper hopes to recommend that work schedules and considerations of income should also be incorporated into meaningful dimensions of family time and thus into project of "time deepening."

In addition to suggestions as to who and what is included in research on familial time poverty, I also suggest the incorporation of mixed methods. The time families spend together is hard to measure in surveys as people multitask and attach different meanings to various activities. Daly (2001) finds the meaning of family time reveals a diverse range of activities that fall under this concept grounded in person's experiences of this time. Therefore, the addition of qualitative methods will give a deeper understanding of how parents and children negotiate time together.

These suggestions for future research came out of the research in this paper and in new ideas on the horizon. Familial time poverty is a concern for

academics, journalists, politicians, and more importantly families. We need to understand what is contributing to and alleviating familial time poverty in addition to how families navigate their day-to-day lives in order to carve out time for one another. This research is one step further in understanding familial time poverty. Even in challenging work arrangements and low-incomes, parents figure out how to spend time with their children. What seems to hold true is parents' persistence and determination in making time for their children, which is good news for our children.

APPENDIX

Table 4. Logistic Regression Predicting the Likelihood that Parents Eat Dinner with at Least One Child over Four Every Night

	Model 1 Covariates Odds Ratio	Model 2 Shift Work Odds Ratio	Model 3 Income Odds Ratio	Model 4 Weekly Hours Odds Ratio	Model 5 Shift Work & Hours Odds Ratio	Model 6 Income & Hours Odds Ratio	Model 7 Shift Work, Income, & Hours Odds Ratio	Model 8 Shift Work & Income Interaction Odds Ratio	Model 9 Shift Work & Hours Interaction Odds Ratio
Demographic Covariates									
Sex									
Male	0.61***	0.62***	0.61***	0.74*	0.75*	0.73*	0.75*	0.75*	0.75*
Female	-----	-----	-----	-----	-----	-----	-----	-----	-----
Race									
White	0.96	0.92	0.97	0.99	0.95	1	0.96	0.96	0.94
Non-White	-----	-----	-----	-----	-----	-----	-----	-----	-----
Education									
Less than High School Diploma/GED	1.32	1.22	1.3	1.35	1.26	1.33	1.24	1.24	1.24
High School Diploma/GED	-----	-----	-----	-----	-----	-----	-----	-----	-----
More than High School Diploma/GED	0.87	0.8	0.89	0.88	0.81	0.9	0.82	0.82	0.82
Young Children									
Children Four and under at Home	1.03	1.05	1.04	1.04	1.06	1.04	1.06	1.06	1.05
No Children Four and under at Home	-----	------	-----	-----	-----	-----	-----	-----	-----
Number of Children									
Three or More Children at Home	1.07	1.06	1.07	1.07	1.06	1.07	1.06	1.07	1.07
Two or Less Children at Home	-----	-----	-----	-----	-----	-----	-----	-----	-----
Independent Variables									
Work Status									
Shift Work		0.62*			0.58**		0.58**	0.76	1.07
Non-Shift Work		-----			-----		-----	-----	-----
Household Income Level									
High Income			0.87			0.89	0.91	0.97	0.92
Middle-High Income			0.96			0.96	0.94	0.97	0.97
Middle-Low Income			0.96			0.96	0.98	1.03	1
Low Income			------			-----	-----	-----	-----
Number of Weekly Hours				0.98***	0.98***	0.98***	0.98***	0.98***	0.98***
Interaction									
Interaction between									
Shift Work & Income								0.61	0.61
Shift Work & High Income								0.83	0.83
Shift Work & Middle-High Income								0.67	0.67
Shift Work & Middle-Low Income									
Interaction between									0.98
Shift Work and Weekly Hours									
Constant	1.32	1.55*	1.38	2.79***	3.68***	2.89***	3.8***	3.62***	3.62***

N=948; *P < .05, **P < .01, ***P < .001

Table 7. Logistic Regression Predicting the Likelihood that Parents Engage in Private Talks with at Least One Child over Four Almost Everyday

	Model 1 Covariates Odds Ratio	Model 2 Shift Work Odds Ratio	Model 3 Income Odds Ratio	Model 4 Weekly Hours Odds Ratio	Model 5 Shift Work & Hours Odds Ratio	Model 6 Income & Hours Odds Ratio	Model 7 Shift Work, Income, & Hours Odds Ratio	Model 8 Shift Work & Income Interaction Odds Ratio	Model 9 Shift Work & Hours Interaction Odds Ratio
Demographic Covariates									
Sex									
Male	0.35***	0.34***	0.35***	0.36***	0.35***	0.36***	0.35***	0.35***	0.35***
Female	-----	-----	-----	-----	-----	-----	-----	-----	-----
Race									
White	0.89	0.88	0.88	0.89	0.89	0.88	0.88	0.85	0.87
Non-White	-----	-----	-----	-----	-----	-----	-----	-----	-----
Education									
Less than High School Diploma/GED	1.01	1.02	1.03	1.01	1.03	1.04	1.06	1.03	1.06
High School Diploma/GED	-----	-----	-----	-----	-----	-----	-----	-----	-----
More than High School Diploma/GED	1.31	1.31	1.29	1.31	1.31	1.29	1.28	1.31	1.27
Young Children									
Children Four and under at Home	0.91	0.89	0.9	0.91	0.89	0.9	0.88	0.87	0.87
No Children Four and under at Home	-----	------	-----	-----	-----	-----	-----	-----	-----
Number of Children									
Three or More Children at Home	0.68*	0.72	0.68*	0.68*	0.72	0.68*	0.72	0.71*	0.72
Two or Less Children at Home	-----	-----	-----	-----	-----	-----	-----	-----	-----
Independent Variables									
Work Status									
Shift Work		1.1			1.08		1.07	0.85	1.81
Non-Shift Work	-----	-----	-----	-----	-----	-----	-----	-----	-----
Household Income Level									
High Income			1.16			1.17	1.23	1.14	1.24
Middle-High Income			1.09			1.09	1.12	1.24	1.15
Middle-Low Income			1.14			1.14	1.16	1.02	1.18
Low Income	-----	-----	------	------	-----	-----	-----	-----	-----
Number of Weekly Hours				1	1	1	1	1	1
Interaction									
Interaction between									
Shift Work & Income								1.69	
Shift Work & High Income								0.41	
Shift Work & Middle-High Income								2.28	
Shift Work & Middle-Low Income									
Interaction between									0.99
Shift Work and Weekly Hours									
Constant	1.32	1.28	1.21	1.55	1.48	1.43	1.35	1.41	1.19

N=962; *P < .05, **P < .01, ***P < .001

Table 8. Logistic Regression Predicting the Likelihood that Parents Engage at Least One Child over Four in Play or Projects Almost Everyday

	Model 1 Covariates Odds Ratio	Model 2 Shift Work Odds Ratio	Model 3 Income Odds Ratio	Model 4 Weekly Hours Odds Ratio	Model 5 Shift Work & Hours Odds Ratio	Model 6 Income & Hours Odds Ratio	Model 7 Shift Work, Income, & Hours Odds Ratio	Model 8 Shift Work & Income Interaction Odds Ratio	Model 9 Shift Work & Hours Interaction Odds Ratio
Demographic Covariates									
Sex									
Male	0.76*	0.77*	0.77*	0.93	0.92	0.94	0.93	0.91	0.92
Female	-----	-----	-----	-----	-----	-----	-----	-----	-----
Race									
White	0.89	0.86	0.89	0.91	0.88	0.9	0.87	0.86	0.88
Non-White	-----	-----	-----	-----	-----	-----	-----	-----	-----
Education									
Less than High School Diploma/GED	0.81	0.83	0.8	0.83	0.85	0.82	0.85	0.83	0.85
High School Diploma/GED	-----	-----	-----	-----	-----	-----	-----	-----	-----
More than High School Diploma/GED	1.18	1.27	1.23	1.2	1.28	1.24	1.32	1.33	1.33*
Young Children									
Children Four and under at Home	1.11	1.1	1.12	1.12	1.11	1.13	1.12	1.12	1.13
No Children Four and under Four at Home	-----	------	-----	-----	-----	-----	-----	-----	-----
Number of Children									
Three or More Children at Home	0.8	0.85	0.79	0.8	0.84	0.79	0.83	0.84	0.83
Two or Less Children at Home	-----	-----	-----	-----	-----	-----	-----	-----	-----
Independent Variables									
Work Status									
Shift Work		1.29			1.23		1.22	1.69	0.65
Non-Shift Work	-----	-----	-----	-----	-----	-----	-----	-----	-----
Household Income Level									
High Income			0.9			0.92	0.96	1.04	0.95
Middle-High Income			1.19			1.2	1.32	1.44	1.28
Middle-Low Income			1.23			1.25	1.28	1.27	1.26
Low Income	-----	-----	------	-----	-----	-----	-----	-----	-----
Number of Weekly Hours				0.98***	0.98***	0.98***	0.98***	0.98***	0.98**
Interaction									
Interaction between									
Shift Work & Income								0.53	
Shift Work & High Income								0.5	
Shift Work & Middle-High Income								0.97	
Shift Work & Middle-Low Income									
Interaction between									1.02
Shift Work and Weekly Hours									
Constant	1.3	1.22	1.12	2.86***	2.55***	2.59***	2.24**	2.15*	2.62**

N=979; *P < .05, **P < .01, ***P < .001

Table 9. Logistic Regression Predicting the Likelihood that Parents Help at Least One Child over Four with Reading or Homework Almost Everyday

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
	Covariates Odds Ratio	Shift Work Odds Ratio	Income Odds Ratio	Weekly Hours Odds Ratio	Shift Work & Hours Odds Ratio	Income & Hours Odds Ratio	Shift Work, Income, & Hours Odds Ratio	Shift Work & Income Interaction Odds Ratio	Shift Work & Hours Interaction Odds Ratio
Demographic Covariates									
Sex									
Male	0.37***	0.37***	3.7***	4.05***	0.4***	0.41***	0.4***	0.4***	0.4***
Female	-----	-----	-----	-----	-----	-----	-----	-----	-----
Race									
White	0.58**	0.58**	0.57***	0.59**	0.59**	0.58**	0.57**	0.56**	0.58**
Non-White	-----	-----	-----	-----	-----	-----	-----	-----	-----
Education									
Less than High School Diploma/GED	1.02	0.98	1.01	1.03	0.99	1.01	0.97	0.96	0.97
High School Diploma/GED	-----	-----	-----	-----	-----	-----	-----	-----	-----
More than High School Diploma/GED	1.12	1.14	1.16	1.12	1.14	1.16	1.19	1.19	1.2
Young Children									
Children Four and under at Home	8.45	0.85	8.45	0.85	0.86	0.86	0.87	0.86	0.87
No Children Four and under at Home	-----	------	-----	-----	-----	-----	-----	-----	-----
Number of Children									
Three or More Children at Home	1.11	1.15	1.1	1.11	1.15	1.1	1.15	1.16	1.14
Two or Less Children at Home	-----	-----	-----	-----	-----	-----	-----	-----	-----
Independent Variables									
Work Status									
Shift Work		1.43			1.41		1.4	1.95	0.96
Non-Shift Work	-----	-----	-----	-----	-----	-----	-----	-----	-----
Household Income Level									
High Income			9.29			0.94	0.92	0.96	0.91
Middle-High Income			1.33			1.33	1.28	1.41	1.26
Middle-Low Income			1.45			1.46	1.51*	1.56*	1.49
Low Income	-----	-----	------	------	-----	-----	-----	-----	-----
Number of Weekly Hours				0.99	0.99	0.99	0.99	0.99	0.99
Interaction									
Interaction between									
Shift Work & Income									
Shift Work & High Income								1.41	
Shift Work & Middle-High Income								2.12	
Shift Work & Middle-Low Income								1.32	
Interaction between									1.01
Shift Work and Weekly Hours									
Constant	3.43***	3.16***	2.95***	5.03***	4.37***	4.29***	3.74***	0.89	4.12***

N=840; *P < .05, **P < .01, ***P < .001

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