

Title: Honey, I'm Home: Maternal Employment and Spousal Work Schedules

I. Background

Between the 1970 and 2000 the percent of married working mothers increased from around 40% to 70%. Since 2000, maternal labor force participation (LFP) has remained around 70%. The determinants and implications of this increase over time have been the subject of research by social scientists. Particular attention has been paid to the effect of maternal employment on children's cognitive development and later life outcomes. This research suggests that while early returns to work by mother may negatively impact children's outcomes, working after the first year of birth is not associated with negative outcomes. Previous research has also found that early childcare programs have positive impacts on children's later life outcomes. Thus, it is important to understand the determinants of what is related to mothers working.

For married women, some possible determinants that have not been analyzed are the timing and flexibility of husband's work. If a mother's husband has a strict work schedule, or is required to work later in the day, this could influence decisions about employment including hours worked, occupation, and the decision to participate in the labor force at all. Understanding this relationship is important for public policy makers as they shape policies that influence work days and the flexibility of schedules.

II. Data

This paper uses data from the Current Population Survey (CPS) and the American Time Use Survey (ATUS), both collected by the Bureau of Labor Statistics (Abraham, et al 2008). The CPS is a household level employment survey, while the ATUS is a nationally representative time diary survey in which the respondents are selected at random from the Current Population Survey outgoing rotation groups. In the ATUS, respondents report what activity they were doing, where they were doing the activity, and who they were with for a 24 hour period. The time diary is given to only one person in a household, but there is additional information on the other family members, including the spouse, from the CPS. The survey data used for this analysis is pooled over the years 2003-2010, and includes married male ATUS respondents with children that have a spouse present between the ages of 22-55.¹ Information about the children and wife are obtained from the CPS.

In addition to using the ATUS and information for the CPS basic monthly survey, this paper also includes analysis performed using the CPS work schedules and work at home supplement. This supplement was given to CPS respondents in May of 1997, 2001 and 2004, and included questions about usual working times and flexibility of work schedules. Because of the CPS and ATUS sampling structure, supplementary analysis will be performed for ATUS respondents that were also in the 2004 work schedules data. These data sets provide rich data on when respondent are working, thus variables can be constructed at a fine level of detail on the timing of work activities.

¹ For ATUS respondents that report at least one hour of working on the given day are included in the sample, and the respondents are also limited to those with a weekday reference period. For the CPS working schedules sample, couples with employed husbands are included.

III. Research Methods & Preliminary Results

The relationship between husbands work schedules and mother's employment will be analyzed using the two datasets, and various the methods. The initial analysis will be performed with a probit estimated of the effect of the spousal work timing on labor force participation. Labor force participation, LFP_{sp} , is a binary dependent variable for the mother (which is the spouse of the ATUS respondent, in the ATUS analysis). Demographic and income control variables for the spouse are included in the estimation and denoted by the vector X_{sp} . This vector includes spousal income, age, age-squared, race, and education level. The variables I_s and I_y are state-specific and year-specific dummy variables and are also included in the estimation. Equation 4 is the specification used to estimate the relationships between work timing and spousal labor force participation. The variable $Hours$ is the dichotomous variable of interest indicating if the ATUS respondent worked during the specified hours, or the usual hours worked from the CPS work schedules supplement. The equation is estimated for the mother, where all of the control variables pertain to the spouse, but the $Hours$ variable corresponds to the husband.

$$(4) \quad LFP_i = \alpha + \beta_1 Hours + \beta_x X_i + \beta_s I_s + \beta_t I_t + e$$

The coefficient on $Hours$ (β_1) estimates the increase in the probability of being in the labor force when the person's spouse works during the specified hours. Preliminary results using the ATUS suggest that in fact, β_1 is negative and significant when the husband works until 6pm. Married mothers are found to be 4% less likely to enter the labor force when their husband works until 6pm, compared to married mothers whose husband finish's work before 6pm. This finding is consistent with Nock and Kingston's (1988) finding that that 3-6pm is crucial for child care. This analysis will also be performed using the CPS work schedules data, and then it will include information on the flexibility of the husband's schedule.

In addition to the analysis of labor force participation, hours worked, and part-time work estimates will be performed. This estimation strategy does not include wages for mothers, because some women are not working. Wages estimates will be included in the model for non-working mothers using Heckman two-step estimation because market wage is an important determinant of employment. Finally, husbands working hours, the employment of their spouses, and the presence children may all be determined jointly. Methods controlling for this endogenous relationship will also be explored.

IV. Summary

The decision to enter the labor force for mothers is based on a variety of factors that includes characteristics of spouses. Husband's work schedules, work hours, and flexibility of work time will play an important roll in this decision to enter the labor force, and additionally, in the decision to work part-time or a set number of hours. This paper uses detailed time-dairy and work schedules data to investigate the relationship between husband's work schedules and maternal employment. This has important implications for policy makers, and for understanding the growth in married women's labor force participation over the last fifty years.