The Implications of Changing Gender Roles on Household Labor Supply: Revisiting the Added Worker Effect

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Abstract

Using the 1996, 2001, 2004, and 2008 panels of the Survey of Income and Program Participation, I investigate the influence earner status plays on individual behavior in response to a spouse's job separation. I find that conditional on gender, there are still large remaining differences in behavior based on earner status. Conditional on earner status, there are few remaining gender differences on the intensive margin, but clear differences on the extensive margin. As the equivalence between gender and earner status continues to erode over time, examining earner status will become even more important.

1   Introduction

Women's place in and attachment to the labor force has drastically changed in the last 40 years. Women are now the primary earner in 29.3% of US households where both the husband and wife work, compared to 17.8% in 1987 (BLS 2017). Given

these social changes it is natural for economists to examine the way the changes have affected household labor supply. Household labor supply is important for economists to understand because it has implications for the way individuals and families respond to social programs, institutional features of the labor market, legal environments, and more.

This paper will conduct an empirical analysis of the relative importance of earner status and gender in the added worker effect, investigating whether men and women behave similarly in response to a spouse's job separation conditional on earner status. Existing research on the added worker effect (Lundberg 1987; Cullen and Gruber 2000; Stephens 2002; Juhn and Potter 2007) and household labor supply more generally (Mroz 1987; Blundell and MaCurdy 1999; Bargain, Orsini, and Peichl 2014; Blundell et al. 2016) has examined the behavior of men and women separately, but has not investigated how much of the differences in behavior between genders is due to choices the couple makes concerning earner status. Another strand of the literature has examined the changes in women's labor supply over time (Goldin 1990; Goldin 2006; Goldin and Mitchell 2017; Goldin and Katz 2018; Blau and Kahn 2007), and a smaller share has investigated how gender roles influence women's labor force behavior (Fernandez et al. 2004; Fortin 2005, 2009; Bertrand et al. 2015; Bursztyn et al. 2017; Murray-Close and Heggeness 2018). The influence of gender and gender roles likely varies depending on the context, and it is important to understand what channels gender acts through and when it is relevant.

In the prevalent social context of mid-twentieth century when the traditional theory of household labor supply was developed and early emprical work was undertaken, there was a near equivalence between gender and earner status. Men were considered to split their time between paid labor and leisure, while women split their time between housework, paid labor, and leisure (Mincer 1962). Hence, when the original research on the added worker effect and household labor supply was undertaken there

was no need to distinguish response by earner status. Analyzing behavior by gender was more attractive since gender, unlike earner status, is not a choice variable. However, as women's place in society and gender roles have changed in the late 20th and early 21st century, gender and earner status are no longer essentially equivalent to one another.[1] As social changes slowly erode the relationship between gender and earner status examining the relative role the two in individual's behavior becomes more important. Though gender undoubtedly influences who is the household's primary earner[2], earner status also reflects other characteristics such as earnings potential and individual taste for work which cannot be observed.

This paper will focus on cross-couple response to a job separation, or the added worker effect. I calculate how much an individual adjusts their labor supply following a spouse's job separation on both the intensive and extensive margin and exploring how this response changes based on both earner status and gender. To answer this question, I use the 1996, 2001, 2004, and 2008 panels of the Survey of Income and Program Participation (SIPP) to match married couples in their prime earnings years and see how they respond to an unemployment shock. One important limitation of this paper, as in previous literature utilizing survey data to examine unemployment shocks, is the inability to control for selection into unemployment. This will be discussed in more detail in Section 2.

There are three contributions this paper makes to the literature. First, conditional on being the secondary earner men and women behave similarly in response to a spouse's job separation. Second, this paper shows that there are still remaining gender differences conditional on earner status on the extensive margin between men

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[1]Figure 1 shows the change in wives's share of the household earnings over my sample period 1996-2013. Since the 1970s and 1980s the changes have been even more dramatic. See Goldin (1990) for an overview of the social changes in the mid-late twentieth century and how they effected women's labor supply.

[2]To attempt to mitigate this to some extent, I use multiple definitions of primary earner, including a short-term definition that has more inherent randomness. This will be discussed further in Section 3.

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and women which appear to be related to earnings potential, an interesting avenue for future research on gender norms and labor supply. Finally, this paper demonstrates that assumptions made in early literature concerning the equivalence of earner status and gender when examining household labor supply are no longer true, and that this should be considered by economists in future theoretical and empirical work.

My findings are robust to different definitions of primary and secondary earner and holds in a number of other extensions including among hourly workers, multiple job holders, accounting for different hours worked prior to the spouse's job separation, and different lengths of the jobless spell.

The rest of this paper is laid out as follows. In Section 2 I discuss the data and empirical framework. In Section 3 I present the results of my main specifications, and in Section 4 present the results of a number of extensions and robustness checks. Section 5 concludes.

2   Empirical Framework

2.1   Data and Descriptive Statistics

In order to test the importance of gender compared to earner status in a married individual's labor supply, I use the 1996-2000, 2001-2003, 2004-2007, and 2008-2013 waves of the Survey of Income and Program Participation (SIPP). The SIPP is the largest panel survey available in the United States, with roughly 40,000 households participating each wave. Each household is interviewed every four months, and participants are asked questions about each of the last four months during each interview. The SIPP is well suited for my purposes for several reasons. First, households are in the survey for multiple years, which allows me to construct a longer panel then would be possible using other US household surveys. Second, the SIPP collects extremely detailed information on household income with information on exactly how much is

earned by each spouse, their hours worked, as well as other income (such as unemployment insurance) received by the household, which will allow me to distinguish between extensive and intensive margin responses and differential spousal response by the degree of household income loss. Finally, the survey has a much larger sample size than the PSID, giving me more statistical power. Additionally, the monthly frequency allows me to observe response during the unemployment spell as opposed to the annual frequency of the PSID.

Given the focus of this paper, I limit my sample to married[3] couples who are continuously married for the period they are in the survey to exclude couples who divorce during or after the jobless spell, particularly since wives may ramp up their labor force activity in anticipation of marriage dissolution (Fernandez and Wong 2014).[4] To avoid complications in household labor supply dynamics due to education and retirement decisions, the sample is further restricted to those where both members of the couple are between 25 and 54 for the whole period.

Table 1 shows some selected characteristics of the married-couple sample at the individual level, separated by gender, and the household level for January 1996, January 2005, and January 2013. The sample has become more educated over time, with women becoming educated more rapidly than men. In 1996, 19.2% of men and 20% of women had a bachelors degree, which rose to 23 and 26.1%, respectively, by 2013. The sample has become less white over time, from roughly 78% in 1996 to 70% in 2013. The Hispanic and other race population has risen to around 15% and 8%, respectively. The average age of the sample has remained stable at forty years. Labor force participation has remained steady for men at around 95%, while for women it has declined slightly from 76% in 1996 to 72.5% in 2013. Conditional on working, hours have declined slightly for men from 44.8 to 42.5, while for women they have

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[3]Marriage is defined in this paper as legally married couples as the majority of U.S. states do not legally recognize common law marriage. Matching spouses is done using the administrative variables in the SIPP dataset identifying the spouse of the family reference person.

[4]Couples who marry midway through the survey are also included.

increased slightly from 35.8 to 36.6. At the household level, much fewer households have young children in 2013, which may be due to the Great Recession delaying childbirth among married couples. The majority of the households have a male primary earner, though the share has delined from 69.3% in 1996 to 63.7% in 2013.

As the social shift to a larger share of households with a female earner is of great importance for this paper, Figure 1 shows a more detailed breakdown of the household income shares of wives for 1996 and 2013. As can be seen from the distributions, husbands are bringing in smaller shares of the hosuehold income over the years. The share of wives making 90% to 100% of the households earned income have increased from roughly 8% to 10% over the sample timeframe, and the share of wives in each bin above 50% of the household income has increased. Interestingly, the share of households where the woman does not work or makes less than 10% of the household income has also increased.[5]

2.2 Empirical Strategy and Regression Framework

As I am examining the added worker effect, I focus on job separation. I examine individual i's labor supply response, measured in change of hours of work, to the job separation of their spouse. Hence, I am using a subsample of the spouses of displaced earners. This is similar to an event study framework, where the "event" in this case is the job separation. There are two identification assumptions in this case: the exogeneity of the job separation and the pre-trends assumption. In my research design, the pre-trends assumption seems to be met, but exogenous job separations cannot be identified consistently using the SIPP data. I will further discuss these assumptions below.

I define the beginning of jobless spell s as a transition from employment to unem-

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[5]See Goldin and Mitchell (2017) for more information about women's life cycle work profiles. She finds that more recent cohorts of women have lower levels of labor force participation in their middle years that earlier cohorts.

ployment, or a transition from employment to nonparticipation if the job separation was involuntary.[6] Following the initial job separation transitions in and out of the labor force are considered part of the same jobless spell. A spell is included in the sample if it is twelve weeks or more in length. This allows enough time for adjustment in the labor supply of the spouse as a response to a longer-term jobless spell. Adjustment by the spouse is unlikely to take place immediately after the job separation. Additionally, if I was to use a shorter time period, I would likely be including a number of spells where an individual quit to take another job and was unemployed for a short time. These planned unemployment spells likely lead to different spousal response than a long-term unexpected separation. Although the SIPP does have a reason for separation variable in the waves I am using, it is missing for the majority of the job separations in the data - hence it is not possible to consistently identify involuntary separations. Consequently, the results should be understood as examining the household response to a medium to long-term unemployment shock. In additional robustness checks, I show the results are highly similar if shorter spells of four weeks or longer are also included.

I run regressions of the form

$$\Delta LS_{is} = \beta_0 + \beta_1 q1_{is} + \beta_2 q2_{is} + \beta_3 q3_{is} + \beta_4 X_{is} + \beta_5 Z_{i,-s} + \alpha_j + \gamma_s \tag{1}$$

$\Delta LS_{is} = lnH_{is} - lnH_{i,-s}$ is the change in labor supply of an individual i whose spouse experiences a jobless spell s. H_{is} is the average weekly hours worked at the main job by individual i during spell s, while $H_{i,-s}$ is the average weekly hours worked by individual i at the main job in the three months before spell s begins. In the main specifications, these hours are estimated in two ways. First, only changes at the intensive margin are measured by averaging average weekly hours conditional

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[6]Reasons for involuntary separations are: on layoff, childcare problems, other family/personal obligations, own illness, own injury, discharged/fired, employer bankrupt, or employer sold business.

on working, excluding individuals who work zero hours in s or $\text{-}s$. Second, extensive margin responses are included allowing zero hours before or after the job separation.[7] The three variables q1 q2 and q3 are indicator variables of the share of the total household income i's unemployed spouse was making in the 3 months prior to the job separation where q1 is 0-25%, q2 is 25-50% and q3 is 50-75%. The excluded category is the invididuals whose spouses were making 75-100% of the household income prior to the job separation. Therefore, a coefficient of -.025 on q1, for example, can be interpreted as individuals whose spouse made 0-25% of the household income prior to their job separation adjust .025 log points less than individuals whose spouse made 75-100%.

X_{is} is a vector of personal characteristics including age, flags for the presence of a child in the family 0-2, 3-6, 7-12, and 13+ years of age[8], the state unemployment rate among individual i's gender, the weekly unemployment insurance (UI) benefits the spouse is eligible for[9], controls for job class, major industry, and major occupation. $Z_{i,-s}$ are the characteristics of the spouse's previous job: the class, major industry, and major occupation. α_j are state fixed effects, and γ_s are fixed effects for the year-month the spouse began their unemployment spell (i.e. if the spouse became unemployed in January 2008 that would be the month of the fixed effect).

The spell-based approach is able to answer the question more effectively given the data available than an approach using monthly observations of hours throughout the spell. I note the share of income i's jobless spouse was making prior to their job separation varies between spells, but is fixed within a given jobless spell. Furthermore, since labor supply within a given unemployment spell is likely to be highly correlated,

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[7]I use an inverse hyperbolic sine transformation to include the extensive margin response. See Burbidge, Magee, and Robb (1988) for details about the hyperbolic sine transformation. The transformation is of the general form $\log(y_i + (y_i^2 + 1)^{1/2})$.

[8]For example, if there is a 5 year old and a 7 year old in the family the flags for the presence of a child 3-6 and 7-12 would each be 1.

[9]The programs to calculate potential UI benefits were obtained from the Heller-Hurwicz Economics Institute at the University of Minnesota.

using a monthly design is unlikely to yield more information than the spell-based approach I am using.

Related to the discussion of involuntary job separations above, one form of selection this paper cannot easily address is common in the literature examining unemployment: selection into a jobless spell. In other words, the job separation is not necessarily exogenous. The first issue, the difficulty of distinguishing between voluntary and involuntary job separations, was discussed above. The second involves the involuntary spells, taking as an example the being fired from a job. Who is fired is not random, these individuals likely have different characteristics than individuals who are not fired from their jobs. Since the reason for job separation variable is missing for the majority of the jobless spells, I cannot determine which job separations are exogenous. Due to this inability to control selection into unemployment, the results calculated in this paper may not hold for the general population.

However, when formulating unemployment benefits, for example, understanding the response of those who actually become unemployed is useful. Furthermore, the exact results calculated in this paper are less important than the overall idea concerning the change in gender norms eroding the near equivalence between gender and earner status and the larger implications of such social changes. This paper underscores the importance of understanding when gender is important, or the channel it acts though. Extending this idea to other contexts is more important than the precise numbers seen in my results.

An additional identification assumption of the event-study type of design I am employing is the parallel trends assumption. Since my coefficients of interest are the relative responses of individuals by earner status and gender rather than the precise level of the response, so long as the trend in hours of work of the spouses of job losers was the same between income shares and genders prior to the job separation the coefficients of interest are accurately identified. This assumption is less strong than

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the assumption that the pretrend in hours of spouses of job losers and stayers must be identical. Even if the pre-trend in hours of spouses of job losers and stayers differs the bias generated by this form of selection likely biases the overall added worker effect towards zero. If a couple anticipates a jobless spell and the spouse adjusts hours prior to the job separation, the change in hours upon separation will be understated compared to the true response.

As an additional test of the event study research design assumptions, I employ a placebo test. For each couple that experiences a job separation, I artificially move the beginning of this jobless spell to six months before the actual job separation and impose that the fake "jobless spell" last three months.[10] Then, I run all of my main specifications on this artificial jobless spell. The results are shown in Appendix Table A1. As the results show, none of the individual characteristics have predictive power for the fake job separations, providing support for the validity of the event-study type framework.

3   Results

Table 2 shows the estimates from regressions of the change in hours at the main job upon a spouses' job separation separated by gender. The first panel shows the results for women, i.e. the change in hours of a women when her husband experiences a job separation, and the second for men. As the results in Panel A show, there is substantial heterogeneity in women's response to a spouse's unemployment depending on the share of income that the household loses as a result of the separation. In the basic specification examining the intensive margin, women whose husbands earned 50-75% of the household income in the three months pre-separation adjusted .043 log points less than those whose husbands earned 75-100% of the income. Similarly,

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[10]Unfortunately, I lose roughly 40% of my observations in this placebo test compared to the main regressions. This is because those couples were not in the survey for long enough to construct an artificial jobless spell prior to the true job separation.

women whose husband's earned 25-50% and 0-25% of the household income pre-separation adjusted .085 and .098 log points less, respectively.

When the extensive margin is included the results show substantially less adjustment among women who were making a larger proportion of the household income beforehand. It is important to understand that almost by construction the coefficients on the income shares will be much larger in this specification if there is any adjustment among the group working zero hours prior to the job separation. What is important is that if these large-magnitude negative coefficients are observed there is adjustment at the extensive margin. This specification clearly shows that a large amount of adjustment happens among women who were not working prior to their husband's job loss, the classic added worker effect. Notably, the coefficient on eligible UI benefits becomes highly significant in this specification compared to its marginal significance in the intensive margin specification. This suggests that UI benefits are much more distortionary with regards to extensive margin response than intensive margin response.[11] This is logical, since finding a new job when previously not participating in the labor force is likely to be more difficult than adjusting hours at an existing job, and thus the decision is more easily distorted by potential UI benefits.

Theoretically, the intensive margin response should be concentrated among hourly workers since for salaried workers there is unlikely to be additional benefit to increasing hours. When the basic specification is carried out for women who are hourly workers in column 3 of Table 2a, the coefficients are slightly larger in magnitude but not statistically different from the coefficients for all female workers.

The second panel shows the same regression specification for men. Men do not have the significant intensive margin response seen among women, though the coefficients are also negative. However, the specification including extensive margin response shows adjustment on the extensive margin as observed among women. No-

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[11]Cullen and Gruber (2000) only estimate response including the extensive margin or only the extensive margin and find that UI benefits are distortionary.

tably, the coefficients in column 2 of Table 2b are larger in magnitude than the coefficients in column 2 of Table 2a, suggesting that men perform relatively more of their adjustment on the extensive margin than women. This shows that there is a classic added worker effect among men, but only significant on the extensive margin. This suggests there may be substantial differences between the ways men and women respond to the job loss of a spouse. There is also evidence that among women at least, how strongly they respond depends upon how much of the household income their spouse was earning prior to the job separation.

However, households do not decide which member is the primary or secondary earner randomly. Women are much more likely to be the secondary earner. If primary and secondary earners behave differently regardless of gender, the apparent differences between male and female responsiveness to a spouse's job loss shown above and in previous literature may in fact be confounded by composition effects. If secondary earners are more responsive and more women are secondary earners, women may appear more responsive. The results in Table 2 provide some support for this hypothesis. The coefficients on earnings shares for men are the same sign from those for women on the intensive margin. Their insignificance may be due to a smaller sample size of men who earn lower shares of the household income.

In order to investigate this, I further analyze the data splitting it by primary and secondary earner status. There are several ways to think about who is the household's primary earner. First, the classic way that economists have thought about the primary earner. The member who is generally responsible for earning the majority of the household income, the role men have traditionally performed. Second, who is actually earning more money in a particular month. Both of these definitions have advantages and disadvantages, which I will illustrate with an example. Imagine a household where the male had earned 70% of the household income. Then, his pay is cut and he is suddenly earning 40% of the household income and subsequently loses

his job three months later. If I define primary earner as who is earning most of the household income most of the time, the husband would be defined as the primary earner. However, since the results in Table 2 suggest that how much of the household income is lost upon job separation seems to be a salient factor in how much spouses adjust as discussed previously, this definition may not capture such aspects of the spouse's response. However, if I defined primary earner as who was earning more of the income prior to the job separation important long-term dynamics are ignored. Consequently, I will perform analysis by primary and secondary earners using both of these concepts. I will first analyze a long-term definition of the primary earner, then a short-term definition. In a robustness check, I extend the analysis to an additional definition of primary earner based on earnings power. Using multiple definitions of primary earner, particularly the short-term definition which is more random, also has the advantage of mitigating the impact of gender on the household choice of who is the primary or secondary earner on my results. Although the choice of who is the primary earner is not random and is influenced by gender, different or similar results by different definitions of primary earner may be suggestive about the mechanism that gender acts through when households are determining earner status.

Table 3 shows the results separately by earner status. The first panel shows the results for primary and secondary earners where the primary earner is defined as the household member who makes 50% or more of the total household income 50% or more of the time the couple is observed in the SIPP, or the long-term definition. Hence, the jobless spouse may have been making any share of the household income in the three months before the job separation. The first three columns are the response of secondary earners. These responses display a similar pattern to the results for women in Table 2a, but the coefficients are larger in magnitude and insignificant. A smaller hours adjustment if the spouse was earning a smaller share of the household income pre-separation. Notably, these income share coefficients are for men, with

the interactions between the income shares and gender, discussed further below, displaying differences in behavior conditional on the income share. That the differences in adjustment conditional on the household income lost in the separation for male secondary earners look so similar to the results for women in Table 2a suggests that the differences in results for women and men in Table 2 are driven by composition - women are more likely to be secondary earners. This is further reinforced by the fact that when the sample is split by earner status the coefficients on household income share are no longer significant, suggesting that the variation seen in Table 2 by income share is captured by the primary/secondary earner split.

The coefficients of interest are the interactions between the pre-separation income shares and gender, which show if there are remaining gender differences conditional on earner status. In the intensive margin specification the interaction between spouse 0-25% and female is marginally significant and negative, suggesting that female secondary earners respond differently than male secondary to a job separation by their spouse who made 0-25% of the household income in the three months before the separation. However, since these are regressions for people whose spouse made 50% or more of the income more than half the time, these may be cases where a spouse's hours and earnings were adjusted downward prior to separation, and the secondary earner subsequently adjusted prior to the formal job separation, which would bias the coefficient towards zero. Since there is a great deal of nonrandom assignment of who is the secondary earner based on gender, this could create the coefficient seen in the first specification. Since women are more likely to be secondary earners, if there is preadjustment in this group women may seem to adjust less than men. A similar phenomenon may be occuring in the specification including extensive margin adjustment. Furthermore, in all of these specifications there is no consistency to the gender differences - they are highly dependant on how the data is split and which subsample is used. Additionally, the coefficient on potential UI benefits is again only

significant in the extensive margin specification. There do not seem to be consistent or strong differences between the response of primary earners by gender, as shown in columns four and five of Table 3a. There is some marginal evidence that female primary earners adjust more, but it is not consistent across the two specifications.

These results suggest that the differences observed between men and women in Table 2 may be driven by composition. Women are more likely to be secondary earners, but conditional on earner status there are not clear and consistent gender differences. Furthermore, secondary earners display similar dynamics in coefficients as women in Table 2a. As discussed previously, the significant coefficients on the interactions between income share and gender may be driven by the way I have defined primary and secondary earner in this specification. There is some evidence that individuals are ramping up their labor force activity prior to their spouse's final separation from a job. Figure 2 shows the average weekly hours of an invividual at their main job in the six months prior to and following a spouse's job separation at time 0. There is an upward trend in hours prior to the job separation that continues throughout the jobless spell. This indicates that some spells are anticipated and pre-adjustment takes place. Although the definition of primary earner used above captures long-term dynamics in the household, a more short-term definition may be effective in eliminating this pre-adjustment problem.

In order to investigate this possibility further, Table 3b shows results of the same specification for a short-term definition of primary and secondary earners. In this specification, the primary earner is the household member who was earning 50% or more of the household income in the three months immediately prior to the job separation. This minimizes the pre-separation adjustment problem described above although it is not ideal for thinking about a "classic" primary earner definition in that it does not capture the long-term household dynamics.

The results show no gender differences conditional on earner status. In columns

1 and 3, there is no difference in adjustment between the secondary earners whose spouses earned 50-75% of the income pre-separation and those whose spouses earned 75-100%. Futhermore, the coefficient on the gender interaction is insignificant. Including the extensive margin, there are differences between the income share groups, driven by the extensive margin response. Notably, there are still no gender differences even when including the extensive margin response. This demonstrates that the salient issue for households is how much of the household income is lost upon unemployment, and there are not gender differences in response conditional on short-term earner status. Again, potential UI benefits are only important here when looking at the extensive margin, suggesting its distortionary effects are limited to the decision to enter the labor force upon a spouse's becoming unemployed.

Overall, these results show that conditional on earner status men and women behave similarly as there is little remaining variation by gender, but conditional on gender there are strong remaining differences in behavior based on earner status. This suggests that in the context of problems where cross-couple labor supply response is important, accounting for earner status is important for economists.

4   Additional Extensions

4.1   Multiple Job Holding

Since the main specifications use the dependant variable of change in average weekly hours at the main job there may be underlying differences in multiple job holding behavior by gender not captured in the previous results. Table 4 shows the results of the specifications using the dependant variable of change in average weekly hours at all jobs. The results indicate limited, if any, gender differences in multiple job holding behavior. As in the main results, the analysis split by gender does seem to show gender-based differences in behavior. Column 1 shows that women adjust

more if they have multiple jobs if their husband was the primary earner, with positive and significant coefficients on the interactions between income shares and multiple job holding. For example, among women whose husbands were making 50-75% of the household income prior to job separation they adjust .292 log points more they are holding multiple jobs. Among men, the opposite is true, there is seemingly less adjustment among those who hold multiple jobs.

As in the main results, these apparent gender differences are the result of composition effects. Column 3 shows the results for secondary earners. The sign and magnitude of the coefficients is very similar to the results for women with large and significant coefficients on the interactions between income shares and gender. Among primary earners, the results show the same dynamics as the results for men, though they are not as close as the results for secondary earners and women. There are no significant gender differences, measured by the interaction terms, in either set of results.

The results of the short-term secondary earner specification are also consistent with the main results, there are no gender differences or differences in adjustment based on income share after conditioning on who is earning more than 50% of the income prior to the job separation. Among secondary earners, it seems that secondary earners with multiple jobs may adjust more conditional on the spouse's pre-separation income share with positive but insignificant for both interaction terms, which is logical since multiple job holders have two possible jobs to adjust their hours at rather than one.

Among primary earners, there do seem to be gender differences, with women adjusting less if they were making more than 50% of the household income prior to job separation. The fact that this only occurs in the short-term results and not the long-term results suggests this may be a result of the preadjustment seen in the main results. If some women were making more than 50% of the household income in the 3

months prior to the separation due to their spouse losing hours and women increase their own hours to smooth consumption in response as discussed previously, they may adjust less upon the actual job separation.

4.2   Different Response Based on Pre-Separation Hours

Some individuals who would like to adjust hours in response to a spouse's job loss may not be able to. Working full time is a type of "corner" solution. If this is the case, the main results may mask heterogeneity in response based on how many hours an individual was already working. Another unique situation is part-time workers. They are already working in some capacity and can more easily adjust than those not in the labor force, and have more possible time to reallocate to their job than full-time workers. Table 5 shows the results of the analysis examining the hours adjustment of those working 60 or more and 30 or fewer hours per week prior to their spouse's unemployment spell.

Panel a shows the results for those working 60 or more hours per week prior to the job separation. Overall, the results are unsurprising. For men and women, the results are quite similar to the main results, with women displaying differences in response by the share of household income lost in the job separation. Among both men and women, those working 60 hours or more prior to their spouse's job separation adjust less, with coefficients on the interactions between income share and working 60 hours or more per week prior to the job separation from around -.15 to -.25. Meaning, among individuals whose spouses were making a specific share of income prior to their job separation, those who were working 60 or more hours per week adjust -.15 to -.25 log point less than those who were working less than 60 hours. This is an intuitive result, we would expect those already working more hours to be less able to adjust their hours upwards.

Columns 3 and 4 show the results for the long-term definition of earner status.

Among secondary earners, there is the same strong negative influence of working 60 or more hours per week on the hours response, with large and significant coefficients on the interactions between income share and working 60 hours or more per week prior to the job separation around -.25 to -.3. There is no difference in response among primary earners based on working a large number of hours prior to the job separation. In both of these specifications, there are no remaining gender differences after splitting the data by earner status as in the main results.

Columns 5 and 6 show the results for the short-term specification of primary and secondary earner. Here, unlike the long-term definition, there are differences in response by primary earners based on how many hours they were working 60 hours or more per week prior to the job separation. Among secondary earners the results are similar to the long-term definition, with a coefficient on the interaction of -.212.

Panel b show the results for those working part time, 30 hours or week or less, prior to their spouse's job separation. Much of the variation by earner status seems to be due to the ease of adjustment by part-time workers compared to full-time workers. the coefficients on the interactions between part-time status and income shares are significant and positive in the specifications split by gender, the long-term definition of secondary earners, and the short-term definition of primary earners. This suggests, that part-time workers adjust more in response to a spouse's job loss than those working full time, and unsurprising result. Furthermore, after controlling for part-time status there are few remaining differences in adjustment based on the share of household income made by the spouse prior to their job loss, which suggests much of the variation by income share is due to the excluded group, those whose spouses made 75% or more of the household income prior to the job separation, adjusting more due to their part-time work status. Notably, this is true among men and women, futher reinforing that after the choice of primary earner is made by the couple, men and women behave similarly.

The results for the long-term definition of primary earner are an outlier here, with negative coefficients on the interactions between income share and part-time status suggesting. This may be because primary earners who are working part time have highly unusual characteristics such as very low earnings potential or are couples who live off of non-labor income sources.

4.3 Extensive Margin Only

Analyzing the extensive margin separately from the intensive margin may be useful to tease out gender differences not captured by the inclusive specification presented prevously. Table 6 shows the results of a linear probability model on labor force participation after a spouse's job separation. In this specification, only those with zero hours of work prior to the separation are included. This is because positive hours prior to the spell nearly perfectly predicts participation during the spell. The results are similar for a probit, so the linear probability model is presented for ease of interpretation.

Here, there do seem to be gender differences in the decision to enter the labor force for spouses not previously participating upon a job separation. Women are much more likely to enter. This is a different result from the specification including the intensive and extensive margin where there were no gender differences. The obvious explanation for this is men who are out of the labor force likely have different characteristics than women who are out of the labor force. Women are more likely to be out of the labor force due factors related to household and family formation, while men are more likely to be disabled (Krueger 2017). Consequently, women out of the labor force may have higher earnings potential than men out of the labor force and may adjust more easily.

To attempt to see if these predictions hold in the data. Figure 3 shows the last hourly wage of women and men to transition from employed to not in the labor force.

The top panel shows the distribution of men, and the bottom for that of women. Overall, the data belies the common assumptions about men and women who are out of the labor force. Men seem to have higher hourly wages prior to leaving their jobs, with more density at higher levels of the distribution compared to women. This may be due to the documented effect in Bertrand et al. (2015) and that women earn below their potential, or another explanation. For example, the last hourly wage of men who leave the labor force due to disability may not be their current labor market earnings potential. Exploring extensive margin response and understanding exactly why these gender differences seem to occur may be an interesting focus for future work relating to gender roles and the labor market. ,

4.4 An Additional Alternative - Earnings Potential

In order to explore the possibility of different behavior at the extensive margin by gender having a relationship with earnings power as well as to better relate my results to the theory of interfamily bargaining. Table 7 shows the results of an additional alternative definition of "primary" earners. In this specification, the results are split by earnings power within the family. For each family, I computed the hourly wage of each member of the couple for the last time both were working, and defined the "primary" earner as the individual with the higher hourly wage (the higher earnings power spouse). This definition is imperfect. As shown in Bertrand et al. (2015) and Murray-Close and Heggeness (2018) women systematically work at jobs where they make lower incomes than their maximum potential and lie and claim they make less money than their husband when they really make more, which this method cannot account for since it relies on observed data. However, the specification does account for apparent gender gaps in primary/secondary earner status that are on account of chosen hours, which is an important component of household bargaining (Blundell et al. 2007; Knowles 2013). Panel A is the lower earnings potential spouse, and Panel

B is the higher earnings potential spouse.

Purely on the intensive margin, there are no significant gender differences for lower power earners. In both column 1 and column 3, all of the interactions are insignificant. Conditional on earnings power there are only differences in response based on the household income shares for hourly workers, which suggests that conditional on labor force participation previously observed earnings power likely has higher predictive power for salaried workers but than hourly workers where there are remaining differences in adjustment. This may be related to the chosen hours aspect of interfamily bargaining discussed above. Of interest is the specification including extensive margin responses in column 2. Here, there are significant gender differences. The coefficients on the interactions between the spouse earning 25-50/50-75% of the household income prior to separation and gender are large and statistically significant with values around -.35. This indicates that women with low earnings potential are less likely to adjust their hours compared to similarly low skilled men compared to those not working when the extensive margin is included. This may reflect different jobs avilable to low-skill men and women, for example men may be able to obtain jobs in low skilled manufacturing or construction more easily than women. Among higher power earners in panel b, there is evidence that women adjust more than similarly skilled men, with significant coefficients on interactions in columns 1 and 3.

Overall, there are indications that men and women behave differently conditional on their previously demonstrated earnings power. However, there is not a clear explanation for why, which represents a possible avenue of additional research. It is likely to be related to the differences in behavior on the extensive margin discussed in the previous section. Gender roles are likely more salient on the decision to participate in the labor force or not participate in the labor force, and as shown in Bertrand et al. (2015) these decisions are related to earnings power.

4.5 Including Short-Term Jobless Spells

As discussed previously, the main specifications only include jobless spells that last at least twelve weeks. In order to test if the results differ when including shorter unemployment spells, I have repeated the main analysis also including spells that last 4-12 weeks. The results are shown in Table 8.

The results are consistent with the main specifications. Column 1 shows the results for women, which are very similar to the results in Table 2a column 1. The coefficients on the share of income variables are slightly smaller in magnitude than those in Table 2a, though they are not statistically distinguishable from one another. The results for men in column 2 are again quite similar to those in Table 2a column 1, with coefficients of similar size and magnitude. The only difference is that some coefficients on spouse's prior income share are marginally significant when the short-term spells are included, though this is likely due to the greater statistical power offered with a larger sample size.

The results for secondary earners in columns 2 and 5 are also very similar to the main results in Tables 3a and 3b. When the primary earner is defined as the household member who makes more than 50% of the income at least 50% of the time, the results look more similar to those of women, with coefficients around -.1 to -.15 in magnitude, slightly smaller than in the main specifications as in the case of women only. Here, the interactions show no gender differences conditional on earner status.

The smaller magnitude coefficients observed when short-term jobless spells are included is likely due to the factors discussed previously. Individuals need time to adjust after a spouse's job separation. Furthermore, including shorter-term jobless spells is more likely to include spells which are the result of a planned quit, which the spouse is less likely to adjust to.

The results for primary earners are shown in colums 4 and 6. There is some indication that women who are primary earners respond more than men, but the

results are marginally significant and dependant on the specification. The coefficient on the interaction between the spouse earning 0-25% of the household income pre-separation and gender is marginally significant in both specifications, but of opoosite sign. The coefficient on the interaction between the spouse earning 25-50% of the household income pre-separation and gender is significant only in the first definition of primary earner. Overall, there is no clear and consistent difference in response to a spouse's job loss by primary earners.

5 Conclusion

This paper has three major contributions to the literature about female labor supply.

First, this paper shows that conditional on earner status, men and women respond similarly to a spouse's job separation, previously unseen in the literature. When elasticities are calculated separately for men and women, as in the case in much previous research, women are seemingly much more responsive to a shock to a spouse's income than men, who adjust very little. I replicate this finding, and show that the degree of hours adjustment by women changes depending on how much of the household income was lost. However, these apparent gender differences are confounded by the fact that women are much more likely to be secondary earners than men. When the same specifications are run for primary and secondary earners with controls for gender, there are almost no remaining gender differences in the response to a spouse's job separation. This finding holds in a large number of contexts: when including those entering the labor force among hourly workers, multiple job holders, accounting for different hours prior to a spouse's job separation, and different lengths of the jobless spell.

Second, this paper also shows that there do seem to be some gender-based differences purely at the extensive margin related to earnings power. This seems to be

due to the different characteristics of men and women who are out of the labor force as when defining primary or secondary earner by which member of the couple has higher earnings potential, there are remaining gender differences. This suggests that women out of the labor force may adjust more to a job separation at the extensive margin than men because they are on average more highly qualified than men who are out of the labor force and find it easier to find well-paid work. This is consistent with the findings of Bertrand et al. (2015), who show that women consistently earn less than their maximum potential. However, this is contrary to the emprical distributions of the wages of men and women who transition out of the labor force. The exact mechanism driving the remaining gender differences on the extensive margin is unclear and remains a possible avenue for future research related to the impact of gender roles on the labor market.

Finally, these results demonstrate that when formulating research questions economists must be cognizant of when gender roles and the associated differences in behavior play an important role and when they do not, what what channel gender acts through when it it important. As the social fabric of the United States and the world continue to change, old assumptions about the essential equivalence of earner status and gender are no longer true, and these assumptions have important implications for theory and empirical work concerning household labor supply.

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Figures
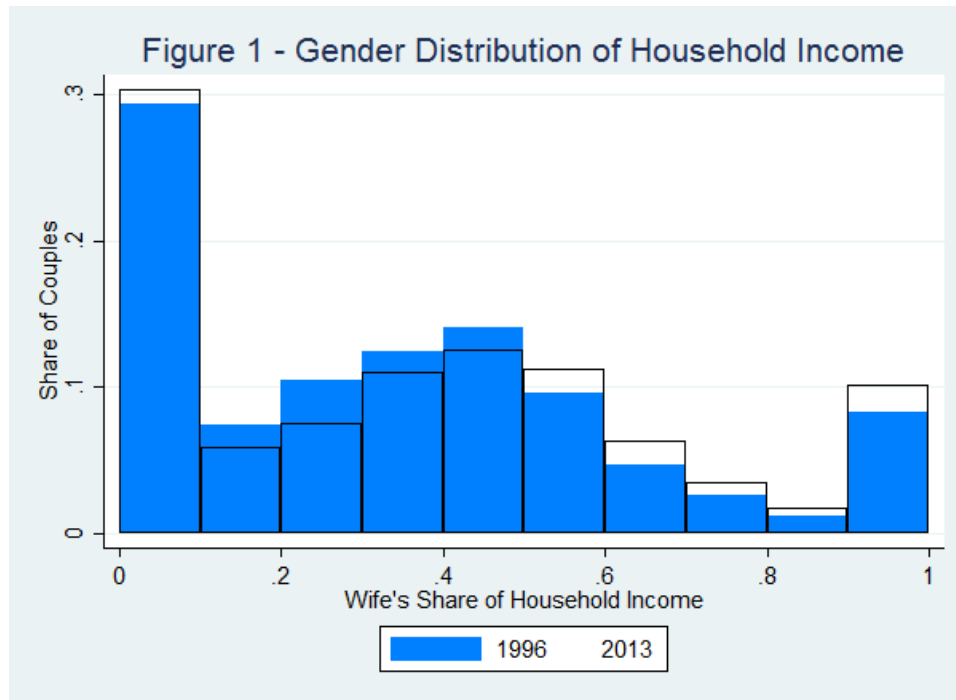
Notes: Author's calculations using the January 1996 and 2013 SIPP data. Share of household income is defined as the share of the earned household income made by the wife during the month. Sample is restricted to continuously married prime-age couples as described in text.
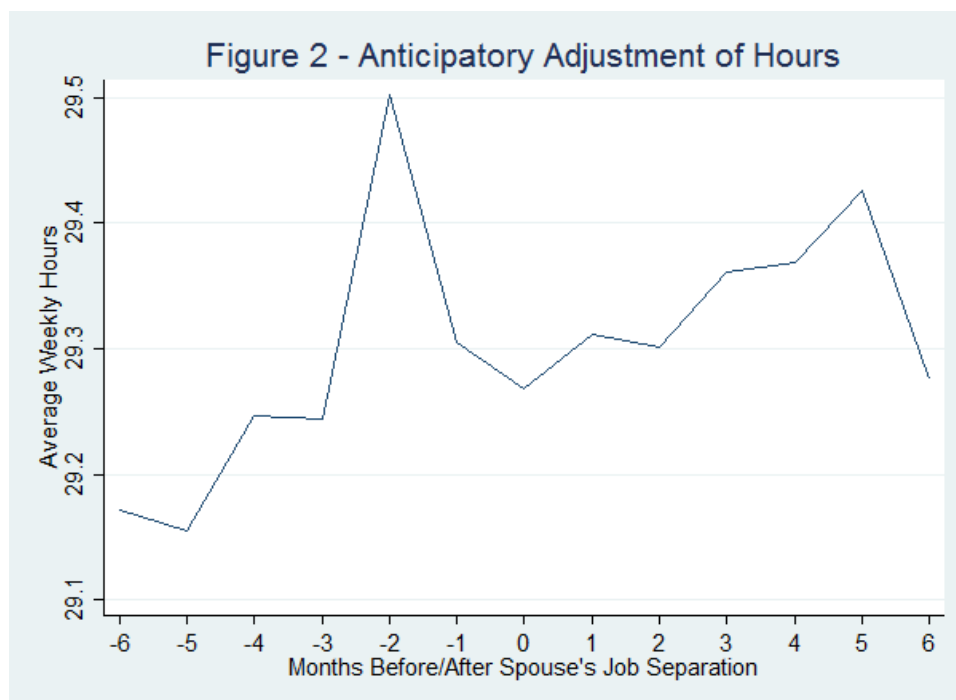
Notes: Author's calculations using the 1996, 2001, 2004, and 2008 SIPP panels. A job separation is defined as in Section II of the text, and sample is restricted to continuously married prime-age couples as described in text.

Figure 3 - Earnings Power of those NILF
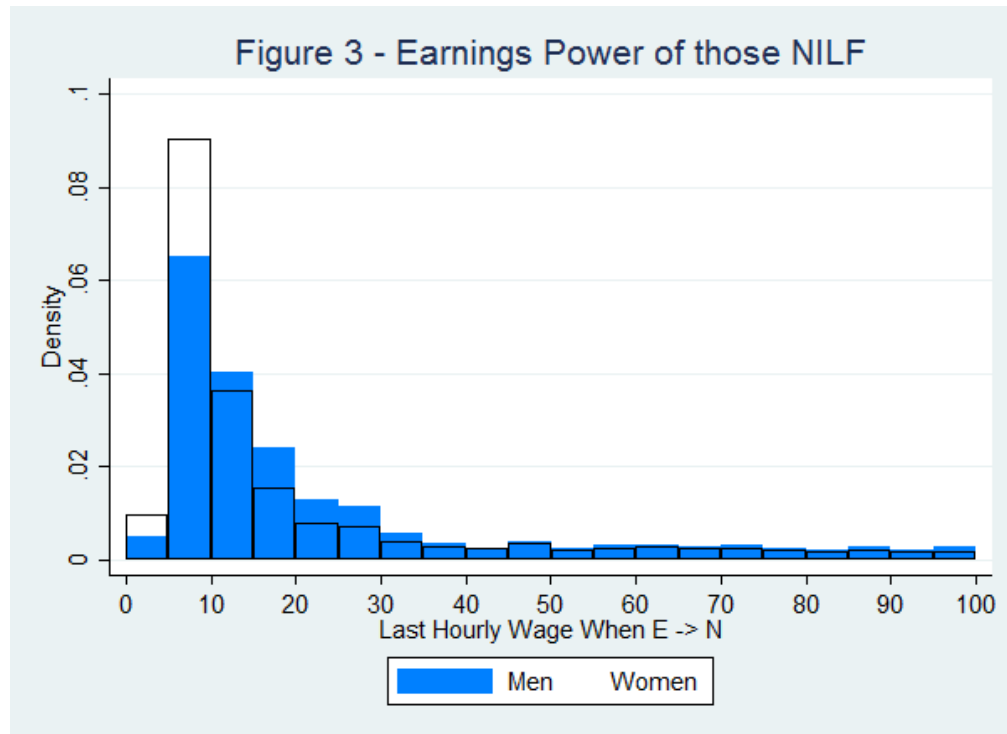
Notes: Author's calculations using the 1996, 2001, 2004, and 2008 SIPP panels. Sample is restricted to continuously married prime-age couples as described in text.

Tables

Table 1: Summary Statistics

Individual Characteristics	(1) 1996 Men	(2) 1996 Women	(3) 2005 Men	(4) 2005 Women	(5) 2013 Men	(6) 2013 Women
Education Level						
Less than High School	0.105	0.103	0.097	0.087	0.082	0.072
High School	0.291	0.313	0.230	0.221	0.238	0.199
Some College	0.306	0.311	0.352	0.359	0.316	0.333
Bachelor's	0.192	0.200	0.207	0.234	0.230	0.261
More than Bachelor's	0.107	0.073	0.115	0.100	0.134	0.136
Race/Ethnicity						
White	0.784	0.783	0.746	0.751	0.704	0.698
Black	0.076	0.072	0.078	0.071	0.070	0.063
Hispanic	0.095	0.092	0.110	0.107	0.147	0.149
Other	0.045	0.053	0.066	0.071	0.079	0.090
Age	39.222	37.383	40.567	38.814	41.958	40.277
LFP Rate	0.948	0.760	0.952	0.760	0.943	0.725
Hours of Work at Main Job (Conditional on Working)	44.869	35.858	43.437	36.269	42.524	36.692
Household Characteristics						
Presence of Children						
0-2 Years	0.217		0.227		0.050	
3-6 Years	0.373		0.340		0.342	
7-12 Years	0.540		0.527		0.576	
13 Plus Years	0.373		0.393		0.410	
Male Primary Earner[1] in Household	0.750		0.721		0.685	

Source: Author's calculations using the SIPP data. All years use data from the month of January.
1: Primary earner defined as household member making more than 50% of the household's earned income.

Table 2 - Results by Gender
Panel a - Women

	(1) All b/se	(2) Incl. Extensive Margin b/se	(3) Hourly Workers Only b/se
Spouse 0-25%	-0.098***	-0.938***	-0.104***
HH income pre-spell	(0.032)	(0.133)	(0.036)
Spouse 25-50%	-0.085***	-1.002***	-0.093***
HH income pre-spell	(0.022)	(0.109)	(0.028)
Spouse 50-75%	-0.043**	-0.787***	-0.055**
HH income pre-spell	(0.021)	(0.105)	(0.027)
Eligible UI/100	-0.012*	-0.084***	-0.005
	(0.006)	(0.031)	(0.009)
Constant	0.343***	0.379	0.288*
	(0.124)	(0.675)	(0.166)
N	2003	2288	1266

Panel b - Men

	(1) All b/se	(2) Incl. Extensive Margin b/se	(3) Hourly Workers Only b/se
Spouse 0-25%	-0.031	-1.132***	-0.041
HH income pre-spell	(0.031)	(0.175)	(0.043)
Spouse 25-50%	-0.027	-1.185***	-0.027
HH income pre-spell	(0.030)	(0.172)	(0.043)
Spouse 50-75%	-0.023	-1.063***	-0.057
HH income pre-spell	(0.034)	(0.181)	(0.056)
Eligible UI/100	0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)
Constant	0.054	0.854**	0.046
	(0.078)	(0.408)	(0.123)
N	2765	3004	1484

* - Significant at 10% level

** - Significant at 5% level

*** - Significant at 1% level

Dependant variable is the change in log hours at the main job, conditional on working in columns 1 and 3 and including 0 hours using a hyperbolic sine transformation in column 2

Robust standard errors used

Table 3 - Results by Earner Status
Panel a - Long-term Definition[1]

	(1) Secondary Earners	(2) Incl. Extensive Margin	(3) Secondary Hrly. Only	(4) Primary Earners	(5) Primary Hrly. Only
	b/se	b/se	b/se	b/se	b/se
Spouse 0-25% HH income pre-spell	0.025	-0.646	-0.078	-0.035	-0.038
	(0.118)	(0.428)	(0.122)	(0.035)	(0.044)
Spouse 25-50% HH income pre-spell	-0.114	-0.495	-0.163	-0.023	-0.027
	(0.080)	(0.381)	(0.117)	(0.036)	(0.044)
Spouse 50-75% HH income pre-spell	-0.121	-0.818**	-0.255**	-0.007	-0.034
	(0.078)	(0.344)	(0.112)	(0.037)	(0.048)
Spouse 0-25%*female	-0.203*	-0.205	-0.182	0.042*	0.054
	(0.111)	(0.327)	(0.134)	(0.024)	(0.041)
Spouse 25-50%*female	-0.050	-0.607**	-0.062	0.032*	0.025
	(0.054)	(0.258)	(0.085)	(0.019)	(0.028)
Spouse 50-75%*female	0.014	-0.117	0.098	0.026	0.065*
	(0.037)	(0.190)	(0.071)	(0.031)	(0.039)
Spouse 75-100%*female	-0.051	-0.285	-0.145	-0.004	0.076
	(0.081)	(0.385)	(0.123)	(0.054)	(0.059)
Eligible UI/100	-0.000*	-0.002***	-0.000	-0.000	-0.000
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Constant	0.079	0.193	0.263	-0.022	-0.063
	(0.274)	(1.331)	(0.247)	(0.087)	(0.114)
N	1220	1528	826	3566	1934

Panel b - Short-term Definition[2]

	(1) Secondary Earners b/se	(2) Incl. Extensive Margin b/se	(3) Secondary Hrly. Only b/se	(4) Primary Earners b/se	(5) Primary Hrly. Only b/se
Spouse 0-25% HH income pre-spell	- 	- 	- 	-0.001 (0.018)	-0.008 (0.025)
Spouse 50-75% HH income pre-spell	-0.019 (0.042)	-1.148*** (0.199)	-0.110 (0.068)	- 	-
Spouse 0-25%*female	- 	- 	- 	-0.030 (0.023)	-0.031 (0.035)
Spouse 25-50%*female	- 	- 	- 	-0.013 (0.019)	-0.006 (0.026)
Spouse 50-75%*female	-0.029 (0.040)	0.045 (0.144)	0.040 (0.061)	- 	-
Spouse 75-100%*female	-0.006 (0.061)	-0.200 (0.254)	-0.050 (0.089)	- 	-
Eligible UI/100	-0.000 (0.000)	-0.001** (0.001)	0.000 (0.000)	-0.000 (0.000)	-0.000* (0.000)
Constant	0.067 (0.217)	-1.071 (0.835)	0.343 (0.271)	0.075 (0.072)	-0.031 (0.088)
N	1354	1671	888	3545	1945

1, 2 - Long-term definition defines primary earner as spouse making 50% of household income 50% or more of the time, short term is which spouse was earning 50% or more of the household income in the 3 months prior to the job separation

* - Significant at 10% level, ** - Significant at 5% level, *** - Significant at 1% level

Dependant variable is the change in log hours at the main job, conditional on working in columns 1 and 3-5 and including 0 hours using a hyperbolic sine transformation in column 2

Robust standard errors used

Table 4 - Results Allowing Multiple Job Holding

	(1) Women	(2) Men	(3) Secondary (Long-term)	(4) Primary (Long-term)	(5) Secondary (Short-term)	(6) Primary (Short-term)
	b/se	b/se	b/se	b/se	b/se	b/se
Spouse 0-25%	-0.038	-0.071	0.175	-0.075	-	0.004
HH income pre-spell	(0.035)	(0.046)	(0.134)	(0.050)		(0.024)
Spouse 25-50%	-0.038	-0.069	0.088	-0.072	-	-
HH income pre-spell	(0.024)	(0.046)	(0.103)	(0.052)		
Spouse 50-75%	-0.011	-0.071	0.026	-0.086	-0.025	-
HH income pre-spell	(0.023)	(0.050)	(0.104)	(0.054)	(0.119)	
Spouse 0-25%*female	-	-	-0.184	0.043	-	-0.131**
			(0.114)	(0.027)		(0.066)
Spouse 25-50%*female	-	-	-0.087	0.010	-	-0.081*
			(0.061)	(0.022)		(0.046)
Spouse 50-75%*female	-	-	0.012	0.028	0.058	-
			(0.047)	(0.034)	(0.114)	
Spouse 75-100%*female	-	-	0.067	-0.027	0.082	-
			(0.104)	(0.066)	(0.092)	
Spouse 0-25%*multjob	0.036	0.012	0.243*	0.013	-	0.056
	(0.069)	(0.037)	(0.128)	(0.033)		(0.053)
Spouse 25-50%*multjob	0.035	0.048	0.012	0.022	-	0.031
	(0.045)	(0.042)	(0.083)	(0.033)		(0.029)
Spouse 50-75%*multjob	0.292***	-0.018	0.243***	0.133*	0.111*	-
	(0.075)	(0.079)	(0.085)	(0.075)	(0.061)	
Spouse 75-100%*multjob	0.346***	-0.213**	0.254**	-0.133	0.060	-
	(0.117)	(0.105)	(0.121)	(0.101)	(0.089)	
Eligible UI/100	-0.003	0.000	-0.000	0.000*	-0.000	-0.000
	(0.007)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.331**	0.180*	-0.027	0.066	-0.861***	0.072
	(0.131)	(0.103)	(0.301)	(0.109)	(0.325)	(0.148)
N	2008	2771	1222	3575	1032	1495

* - Significant at 10% level, ** - Significant at 5% level, *** - Significant at 1% level

Dependant variable is the change in log hours at all jobs, conditional on working. Robust standard errors used.

Table 5 - Results Accounting for Different Pre-Separation Hours

Panel a - Corner Solution

	(1) Women	(2) Men	(3) Secondary (Long-term[1])	(4) Primary (Long-term)	(5) Secondary (Short-term[2])	(6) Primary (Short-term)
	b/se	b/se	b/se	b/se	b/se	b/se
Spouse 0-25%	-0.093***	-0.027	0.037	-0.030	-	0.005
	(0.032)	(0.031)	(0.121)	(0.036)		(0.018)
HH income pre-spell	-	-	-0.093	-0.025	-	-
			(0.082)	(0.037)		
Spouse 25-50%	-0.082***	-0.030	-0.122	-0.016	-	-
	(0.022)	(0.031)	(0.079)	(0.039)		
HH income pre-spell	-	-	-0.210*	0.031	-	-0.002
			(0.114)	(0.024)		(0.018)
Spouse 50-75%	-0.042*	-0.036	-0.075	0.023	-0.010	-
	(0.022)	(0.035)	(0.053)	(0.019)	(0.042)	
HH income pre-spell	-	-	0.008	0.022	-	-
			(0.036)	(0.031)		
Spouse 0-25%*female	-	-	-0.061	-0.012	-	-0.021
			(0.082)	(0.054)		(0.023)
Spouse 25-50%*female	-	-	-0.281**	0.010	-	-0.002
			(0.111)	(0.074)		(0.018)
Spouse 50-75%*female	-	-	-0.249***	0.018	-0.032	-
			(0.074)	(0.077)	(0.039)	
Spouse 75-100%*female	-	-	-0.280**	0.053	-0.003	-
			(0.141)	(0.096)	(0.061)	
Spouse 0-25%* $\geq 60 hours pre-spell$	-0.079	-0.146***	-0.717***	0.010	-	-0.134***
	(0.083)	(0.019)	(0.181)	(0.074)		(0.018)
Spouse 25-50%* $\geq 60 hours pre-spell$	-0.248**	-0.159***	-0.249***	0.018	-	-0.173***
	(0.115)	(0.029)	(0.074)	(0.077)		(0.026)
Spouse 50-75%* $\geq 60 hours pre-spell$	-0.089	-0.090	-0.280**	0.053	-0.212***	-
	(0.068)	(0.068)	(0.141)	(0.096)	(0.069)	
Spouse 75-100%* $\geq 60 hours pre-spell$	0.000	-0.221**	-0.717***	0.000	0.255	-
	(.)	(0.092)	(0.181)	(.)	(0.326)	
Eligible UI/100	-0.011*	0.000	-0.000	0.000	-0.000	-0.000
	(0.006)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.342***	0.147*	0.379	-0.018	0.032	0.079
	(0.124)	(0.083)	(0.276)	(0.086)	(0.219)	(0.071)
N	2003	2765	1220	3566	1354	3545

Panel b - Results for Part-Time Workers

	(1) Women	(2) Men	(3) Secondary (Long-term)	(4) Primary (Long-term)	(5) Secondary (Short-term)	(6) Primary (Short-term)
	b/se	b/se	b/se	b/se	b/se	b/se
Spouse 0-25%	-0.045*	0.006	0.084	-0.030	-	0.001
	(0.026)	(0.020)	(0.102)	(0.036)		(0.016)
HH income pre-spell						-
Spouse 25-50%	-0.014	0.001	-0.077	-0.025	-	-
	(0.020)	(0.019)	(0.074)	(0.037)		
HH income pre-spell						
Spouse 50-75%	0.020	0.004	-0.076	-0.016	-0.017	-
	(0.020)	(0.026)	(0.072)	(0.039)	(0.038)	
HH income pre-spell						
Spouse 0-25%*female	-	-	-0.248**	0.031	-	-0.018
			(0.114)	(0.024)		(0.022)
Spouse 25-50%*female	-	-	-0.041	0.023	-	-0.008
			(0.050)	(0.019)		(0.018)
Spouse 50-75%*female	-	-	0.002	0.022	-0.041	-
			(0.036)	(0.031)	(0.038)	
Spouse 75-100%*female	-	-	-0.118	-0.012	-0.098	-
			(0.078)	(0.054)	(0.060)	
Spouse 0-25%* $\leq$ 30hours pre-spell	0.218**	0.484***	0.287**	-0.136***	-	0.320***
	(0.092)	(0.159)	(0.123)	(0.018)		(0.094)
Spouse 25-50%* $\leq$ 30hours pre-spell	0.166***	0.349***	0.142*	-0.128***	-	0.269***
	(0.040)	(0.098)	(0.076)	(0.027)		(0.051)
Spouse 50-75%* $\leq$ 30hours pre-spell	0.132***	0.196**	0.128***	-0.094	0.170***	-
	(0.043)	(0.080)	(0.045)	(0.076)	(0.036)	
Spouse 75-100%* $\leq$ 30hours pre-spell	0.197***	0.445**	0.246***	-0.147**	0.231***	-
	(0.037)	(0.210)	(0.046)	(0.073)	(0.045)	
Eligible UI/100	-0.013**	0.000	-0.000	0.000	0.000	-0.000
	(0.006)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.265**	0.033	-0.081	-0.018	0.037	0.073
	(0.121)	(0.073)	(0.264)	(0.086)	(0.211)	(0.070)
N	2003	2765	1220	3566	1354	3545

1, 2 - Long-term definition defines primary earner as spouse making 50% of household income 50% or more of the time, short term is which spouse was earning 50% or more of the household income in the 3 months prior to the job separation

* - Significant at 10% level, ** - Significant at 5% level, *** - Significant at 1% level

Dependant variable is the change in log hours at main job, conditional on working. Robust standard errors used.

Table 6 - Extensive Margin Only

	(1) LPM b/se
Female	0.209***
	(0.053)
Eligible UI/100	-0.000
	(0.000)
Constant	-0.125
	(0.145)
N	1361

* - Significant at 10% level, ** - Significant at 5% level, *** - Significant at 1% level

Sample only includes individuals not participating in the labor force prior to their spouse's job separation

Dependant variable is a dummy variable indicating labor force participation. Robust standard errors used.

Table 7 - Earning Power Alternative
Panel a - Lower Power Earners[1]

	(1) All	(2) Incl. Extensive Margin	(3) Hourly Only
	b/se	b/se	b/se
Spouse 0-25%	-0.046	0.119	-0.195**
HH income pre-spell	(0.064)	(0.159)	(0.089)
Spouse 25-50%	-0.052	0.207	-0.148*
HH income pre-spell	(0.062)	(0.170)	(0.086)
Spouse 50-75%	-0.020	0.199	-0.120
HH income pre-spell	(0.063)	(0.181)	(0.090)
Spouse 0-25%*female	-0.045	-0.222	0.037
	(0.088)	(0.188)	(0.101)
Spouse 25-50%*female	-0.055	-0.352**	-0.032
	(0.080)	(0.171)	(0.094)
Spouse 50-75%*female	-0.079	-0.346**	-0.039
	(0.081)	(0.158)	(0.093)
Spouse 75-100%*female	-0.012	0.023	-0.065
	(0.104)	(0.184)	(0.131)
Eligible UI/100	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)
Constant	0.304	0.071	0.634*
	(0.335)	(0.631)	(0.354)
N	1252	1272	989

Panel b - Higher Power Earners[2]

	(1) All b/se	(2) Incl. Extensive Margin b/se	(3) Hourly Only b/se
Spouse 0-25%	-0.223	-0.147	0.052
HH income pre-spell	(0.142)	(0.198)	(0.118)
Spouse 25-50%	-0.205	-0.175	0.084
HH income pre-spell	(0.137)	(0.199)	(0.107)
Spouse 50-75%	-0.110	-0.000	0.158
HH income pre-spell	(0.152)	(0.221)	(0.151)
Spouse 0-25%*female	0.196	0.081	0.015
	(0.143)	(0.241)	(0.182)
Spouse 25-50%*female	0.347**	0.160	0.145
	(0.143)	(0.225)	(0.179)
Spouse 50-75%*female	0.290*	0.139	0.242
	(0.165)	(0.249)	(0.217)
Spouse 75-100%*female	0.298	0.165	0.520**
	(0.224)	(0.336)	(0.249)
Eligible UI/100	-0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)
Constant	-0.408	0.023	-0.557
	(0.418)	(0.653)	(0.515)
N	1028	1051	647

1, 2 - The higher power earner is the spouse with the higher hourly wage when
both spouses were last working

* - Significant at 10% level, ** - Significant at 5% level, *** - Significant at 1% level

Dependant variable is the change in log hours at main job, conditional on working

Robust standard errors used

Table 8 - Results Including Short-Term Jobless Spells

	(1) Women b/se	(2) Men b/se	(3) Secondary (Long-term[1]) b/se	(4) Primary (Long-term) b/se	(5) Secondary (Short-term[2]) b/se	(6) Primary (Short-term) b/se
Spouse 0-25%	-0.080***	-0.036	-0.033	-0.026	-	0.006
	(0.024)	(0.022)	(0.080)	(0.025)	-	(0.013)
HH income pre-spell	-	-	-0.101*	-0.022	-	-
	-	-	(0.055)	(0.026)	-	-
Spouse 25-50%	-0.072***	-0.037*	-0.128**	0.008	-	-
	(0.018)	(0.022)	(0.064)	(0.029)	-	-
HH income pre-spell	-	-	-0.098	0.030*	-	-
	-	-	(0.078)	(0.017)	-	-
Spouse 50-75%	-0.050***	-0.027	-0.067	0.024*	-0.039	-
	(0.018)	(0.026)	(0.042)	(0.013)	(0.032)	-
HH income pre-spell	-	-	-0.007	0.008	-	-
	-	-	(0.023)	(0.024)	-	-
Spouse 0-25%*female	-	-	-0.083	-0.010	-	-0.029*
	-	-	(0.072)	(0.045)	-	(0.015)
Spouse 25-50%*female	-	-	-	-	-	-0.015
	-	-	-	-	-	(0.013)
Spouse 50-75%*female	-	-	-	-	-0.032	-
	-	-	-	-	(0.029)	-
Spouse 75-100%*female	-	-	-	-	-0.031	-
	-	-	-	-	(0.043)	-
Eligible UI/100	-0.007	0.000	-0.000	0.000	-0.000	-0.000
	(0.005)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.360	-0.075	0.147	-0.119*	-0.108	0.037
	(0.244)	(0.066)	(0.160)	(0.068)	(0.124)	(0.061)
N	3446	4402	2298	5571	2296	5710

1, 2 - Long-term definition defines primary earner as spouse making 50% of household income 50% or more of the time, short term is which spouse was earning 50% or more of the household income in the 3 months prior to the job separation

* - Significant at 10% level, ** - Significant at 5% level, *** - Significant at 1% level

Dependant variable is the change in log hours at main job, conditional on working. Robust standard errors used.

Table A1 - Placebo Test[1]

	(1) Women	(2) Men	(3) Secondary (Long-term[2])	(4) Primary (Long-term)	(5) Secondary (Short-term[3])	(6) Primary (Short-term)
	b/se	b/se	b/se	b/se	b/se	b/se
Spouse 0-25%	-0.066	-0.032	-0.035	-0.026	-	-0.001
HH income pre-spell	(0.045)	(0.032)	(0.081)	(0.039)		(0.019)
Spouse 25-50%	-0.053	-0.044	-0.053	-0.033	-	-
HH income pre-spell	(0.034)	(0.031)	(0.072)	(0.041)		
Spouse 50-75%	-0.049	-0.019	0.009	-0.029	-0.044	-
HH income pre-spell	(0.034)	(0.034)	(0.062)	(0.042)	(0.056)	
Spouse 0-25%*female	-		0.077	0.008	-	-0.031
			(0.071)	(0.019)		(0.023)
Spouse 25-50%*female	-		0.071	0.008	-	-0.017
			(0.059)	(0.021)		(0.020)
Spouse 50-75%*female	-		-0.030	0.041*	0.008	-
			(0.037)	(0.023)	(0.035)	
Spouse 75-100%*female	-		0.059	-0.007	0.058	-
			(0.073)	(0.085)	(0.059)	
Eligible UI/100	-0.011	0.000	-0.000	0.000	-0.000	-0.000
	(0.008)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.089	-0.013	-0.039	-0.012	0.070	0.082
	(0.211)	(0.111)	(0.253)	(0.087)	(0.352)	(0.077)
N	1275	1731	901	2110	918	3204

The placebo is a false unemployment spell of 3 months beginning 6 months before the true unemployment spell as described in text

2, 3 - Long-term definition defines primary earner as spouse making 50% of household income 50% or more of the time, short term is which spouse was earning 50% or more of the household income in the 3 months prior to the job separation

* - Significant at 10% level, ** - Significant at 5% level, *** - Significant at 1% level

Dependant variable is the change in log hours at main job, conditional on working. Robust standard errors used.