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DISABILITY OR HEALTH SHOCK

Priyanka Anand  
Laura Dague  
Kathryn L. Wagner

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**ABSTRACT**

The onset of a disability or major health shock can affect the labor supply of not only those experiencing the event but also their family members. Potential caregivers face a tradeoff between time spent earning income for the family and providing care for their spouse, which could be affected by the availability of paid leave. We examine caregiving and labor supply decisions after a spouse's disability or health shock and the role of paid leave laws implemented in California and New Jersey in the response using data from the Survey of Income and Program Participation (SIPP). We show that labor force participation of potential caregivers decreased after spousal work-limiting disability or chronic health condition and, to a lesser extent, work-limiting illness. We find that paid leave reduces the likelihood that potential caregivers decrease their work hours to provide caregiving to their spouse after a work-limiting disability or chronic health condition, but limited evidence of effects on other employment outcomes. Our findings demonstrate that spousal disability and health shocks have long-run effects on household labor supply and therefore could be mediated by paid leave; we conclude by discussing possible reasons for finding limited impact in this context.

Priyanka Anand  
George Mason University  
Department of Health Administration and Policy  
4400 University Drive, MS1J3  
United States  
Fairfax, VA 22030  
United States  
panand4@gmu.edu

Kathryn L. Wagner  
Department of Economics  
Marquette University  
David Straz Hall #418  
P.O. Box 1881  
Milwaukee, WI 53201  
kathryn.l.wagner@marquette.edu

Laura Dague  
Bush School of Government and Public Service  
Texas A&M University  
4220 TAMU  
College Station, TX 77843  
and NBER  
dague@tamu.edu

## **1. Introduction**

The onset of a disability or a major health shock has the potential to affect the labor supply decisions not only of those who experience the event but also of other family members. Disabilities and health shocks can make working difficult and result in large medical expenses which can impact the family budget. People who experience these type of conditions may also require additional help with daily activities. Thus, family members of individuals undergoing health events face a tradeoff between time spent earning income for the family and providing care for their sick family member. Further complicating this decision is health insurance, which may be necessary to help ease medical financial burdens but may also be dependent on employment. In this study, we explore the labor force attachment and provision of informal caregiving following the onset of a disability or a health shock for a spouse and the impact of paid leave mandates on these decisions.

There are costs and benefits to providing informal care after a health shock or the onset of a spouse's disability. Survey data has shown that older adults in the U.S. tend to express a preference for being cared for at home (Eckert et al. 2004; Wolff et al. 2008), and there are significant cost savings from not using formal or long-term care (Van Houtven and Norton 2004, 2008). However, the opportunity cost of providing informal care can be substantial as well: for example, the estimated opportunity cost of providing informal care after a cancer diagnosis ranges from \$14,000 to \$72,000 in the first two years after the diagnosis (Van Houtven et al. 2010, Yabroff and Kim 2009). Furthermore, there is a long-term negative impact on the labor force participation of caregivers even after the caregiving ends (Maestas and Truskinovsky 2018, Fahle and McGarry, 2017; Van Houtven, et. al., 2013; Skira, 2015).

The literature shows that providing informal caregiving reduces labor market participation, but there is limited empirical evidence on the decision to provide informal caregiving (and the corresponding labor supply response) at the time of the spouse's health shock or disability. U.S. evidence using the Health and Retirement Study (HRS) for older adults (Coile 2004; Lee 2019) and the Panel Survey of Income Dynamics (PSID) for working-age adults (Meyer and Mok 2018) finds that labor supply tends to decline following a spousal health shock or disability, although Fadlon and Nielsen (2017) find that individuals in Denmark tend not to change their labor supply in response to a spousal health shock. Although caregiving needs are growing because of the aging population, changing family structures (e.g. fewer children, children living farther apart from parents, and lower likelihood of a household member not in the workforce) means that the decision to provide spousal caregiving is likely to be increasingly important, and policies that recognize the complex nature of caregiving needs may be necessary (Schulz & Eden, 2016).

Another factor that may contribute to the decision to provide informal caregiving is the availability of job-protected leave. In the event of a disability onset or health shock of a spouse, paid leave may reduce the conflicting incentives an employee faces between providing additional care for their spouse themselves and continuing to maintain a steady income stream by providing employees with the freedom to care for their spouse as well as continuing to earn their income. Although the COVID-19 pandemic brought the issue of paid leave to the forefront, with the Families First Coronavirus Response Act temporarily requiring employers to provide paid leave to workers who are affected by COVID-19, employers in the U.S. are largely not required to accommodate worker family caregiving needs. Under the Family and Medical Leave Act (FMLA) of 1993, certain employees at firms with more than 50 employees are entitled to job

protected leave that continues any group health insurance, but this leave is unpaid. A few states have created state paid family leave programs for employees who experience qualifying family or health events that provide partially or fully compensated time away from work to provide caregiving to family members. Six states currently mandate paid family leave (California, Rhode Island, New Jersey, New York, Washington, and Washington D.C.) with a few more state policies taking effect in the near future (Massachusetts in 2021, Connecticut in 2022, and Oregon in 2023) and many additional states considering adopting their own policies (Brainerd, 2017). At the national level, the American Families Plan proposed by President Biden in April 2021 would permanently guarantee all workers in the U.S. twelve weeks of paid family leave.

Understanding how paid leave policies affect labor productivity is important for individual families and for the larger economy, but labor supply responses for potential caregivers of spouses experiencing a disability or health shock have not been examined in the U.S. in the context of the availability of paid, job-protected leave. Saad-Lessler (2020) estimates the impact of paid leave on the labor force participation of informal caregivers in California, but does not examine the decision to provide informal caregiving after the health shock. Most recent work on paid leave has focused on the effect on women's careers after childbirth, given the importance of maternity leave on the early career paths of women. Paid leave laws are more common in OECD countries than in the U.S., and research focused on those countries has found that paid leave of up to one year results in an increase in women's employment following childbirth (Ruhm, 1998; Lalive & Zweimüller, 2009). In the U.S., recent work has analyzed the impact of California's 2004 Paid Leave Act and found that women's employment and wages improved in the short run (Rossin-Slater, Ruhm, and Waldfogel, 2013; Baum and Ruhm, 2016; Byker, 2016), but possibly has little impact on the longer-term (Bailey et al., 2019). There is also no evidence that

increasing the paid leave benefit amount increases leave duration or leads to adverse labor market outcomes for women after childbirth (Rossin-Slater et al., 2020).

In this paper, we study the caregiving and labor supply decisions after a spousal disability or health shock and how paid leave laws influence this relationship. We employ an event study difference-in-differences strategy to evaluate the likelihood of labor force exit, reduction in weeks worked, earnings, and caregiving provision following a spouse's onset of a disability or health shock in the Survey of Income and Program Participation (SIPP) for both the potential caregiver and the spouse. We examine the effect of paid leave mandates on these relationships overall and separately for various subgroups. Our results show that the onset of a work-limiting chronic health condition, disability or illness of a spouse reduces the labor force attachment of the spouse and potential caregiver, which is consistent with earlier research in the U.S. We also find some evidence that paid leave mandates increase the likelihood that the spouse works full time after their work-limiting chronic health condition or disability and reduce the likelihood that their potential caregivers would decrease their work hours due to providing care; however, we did not find evidence of an impact on other outcomes, for which we discuss several potential explanations.

The rest of the paper is organized as follows. Section 2 provides background information on paid leave laws and the specific laws we use for identification in our differences-in-differences model. Section 3 describes the data we use in the study. Section 4 describes our empirical methods. Section 5 presents the results of our empirical work, and Section 6 concludes.

## 2. **Background on Paid and Job-protected Leave**

The 1993 Family and Medical Leave Act (FMLA) was the first U.S. federal law to guarantee job-protected leave to eligible employees. At the time of its passage, the primary focus

of FMLA was its provision of maternity leave for American women, although the law also provided coverage for other family and medical situations and for an individual's own illness. The law required that public sector agencies and private employers with 50 or more workers had to cover 12 weeks of continued health insurance and a job-protected leave of absence for qualifying employees<sup>2</sup> who required time off for either pregnancy, own illness, or to care for a sick family member. Despite the possibility of leave offered by the policy, there are limitations to FMLA coverage. Only 55 percent of employees are actually eligible for a leave of absence under the policy (Ruhm, 1997). Also, FMLA does not require that an employer pay wages during a leave of absence, meaning workers may lose their primary source of income if they take a leave of absence. Perhaps as a result of these weaknesses, most studies of FMLA have found small or insignificant effects of the policy on employment (Waldfogel 1999; Baum, 2006).

While FMLA provides unpaid leave for qualifying employees, there are limited options for paid leave in the U.S. To help replace wages lost due to an individual's own illness, paid sick leave mandates allow employees to earn paid sick leave credits that can accrue from one year to the next. These credits allow workers to take time off due to their own illness and not lose pay. However, these mandates are not universal to all states and often exempt small firms (Maclean et al. 2020). Offering paid parental or paid family leave as an employee benefit is not as common as offering paid sick leave (Sawhill et al. 2019), but has become more prevalent among private sector firms in the U.S., especially those where employees invest in more human capital prior to a family event requiring a leave of absence. Given the larger human capital investments, firms have an increased incentive for employees to return following leave. Employees with less human

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<sup>2</sup> Qualifying employees had to have worked at least 1250 hours with the company in the prior year.

capital, however, may have larger gains from paid family leave since they usually earn lower income (Goldin et al. 2020).

Despite its documented effects in comparable countries (Ruhm, 1998; Lalive & Zweimüller, 2009), paid leave remains uncommon in the U.S. As of December 2020, only six states (California, New Jersey, New York, Rhode Island, Washington, and the District of Columbia,) had active programs and three states (Massachusetts, Connecticut, and Oregon) had programs that were awaiting implementation (Donovan, 2019; Feinberg, 2019). Paid leave in the U.S. tends to be shorter in duration and less generous than comparable countries. For example, the wage replacement rate of the employees' full wages was 55% in California and 67% in New Jersey, which is less generous than replacement rates in other paid leave countries. Of 34 OECD countries, 15 provided a wage replacement rate of at least 80% to care for a sick adult family member (Raub et al. 2018). Furthermore, both California and New Jersey mandated only 6 weeks of paid leave during the time period of our study compared to up to three months of leave in 8 OECD countries (Raub et al. 2018).<sup>3</sup> Even the less generous U.S. paid leave laws, however, have documented positive effects on women's labor market outcomes following childbirth (Rossin-Slater et al., 2013; Baum & Ruhm, 2016; Byker, 2016).

Even though paid leave policies tend to emphasize parental leave for birth or adoption, there are many reasons to suspect that paid leave policies may also affect labor outcomes for individuals caring for a spouse following a disability or health event. First, estimates of the

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<sup>3</sup> Note that as of 2020, California has increased the coverage length to 8 weeks, and New Jersey has increased its coverage to 12 weeks. Please see state websites for further information.  
[https://www.ny.gov/sites/ny.gov/files/atoms/files/PaidFamilyLeave\\_BusinessOwnerFactSheet.pdf](https://www.ny.gov/sites/ny.gov/files/atoms/files/PaidFamilyLeave_BusinessOwnerFactSheet.pdf),  
[https://www.nj.gov/labor/forms\\_pdfs/tidi/WPR-119%20\(1-18\).pdf](https://www.nj.gov/labor/forms_pdfs/tidi/WPR-119%20(1-18).pdf), [https://www.edd.ca.gov/disability/about\\_pfl.htm](https://www.edd.ca.gov/disability/about_pfl.htm),



opportunity cost of providing informal care to a spouse suggest that the continuation of wages during a leave of absence could be an important factor for family caregiving decisions (Van Houtven et al., 2010; Yabroff and Kim, 2009). Second, if couples instead choose formal care following a diagnosis because a spouse is unable to provide care themselves, this adds to overall medical costs. Skilled nursing care for the elderly in the U.S. was estimated to cost \$642 billion annually (Chari et al. 2015). Paid family leave in California reduced the proportion of the elderly population in nursing homes suggesting indirectly that families increasingly cared for members in the home and a potential for significant savings in this sector (Arora and Wolf 2018). Third, because providing spousal care is more common amongst women (Glauber 2017), it is possible that paid leave could have a larger effect on their labor market outcomes compared to men and reduce gender disparities in the labor market.

Few papers have considered the effect of paid leave policies on caring for a sick spouse, which is likely in part due to a lack of data availability. Of active paid leave states, only two (California in 2004 and New Jersey in 2009) adopted their policies in years that allow for an evaluation of the policy. Both laws offered up to six weeks of paid leave at a partial wage rate to care for a sick family member or bond with a newborn/adopted child (Byker 2016). This is less than the 12 weeks of unpaid leave provided through FMLA, but the eligibility standards in terms of a qualifying event were similar. Neither California's nor New Jersey's paid leave policies protected fringe benefits such as health insurance during the leave of absence. However, health insurance was protected under FMLA so it was expected that employees take their paid leave concurrently with FMLA to avoid the interruption of benefits.<sup>4</sup>

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<sup>4</sup> During FMLA, the employee may be required to pay their usual cost in order to maintain health insurance coverage, although they must be reinstated at the same level when they return if they do not. For example, if the

### 3. Conceptual Framework

The onset of a disability or major health shock undoubtedly impacts the household budget in several ways, including loss of income from the person experiencing the event, large medical expenses, and the need for caregiving. A potential caregiver faces an important tradeoff when a spousal health event occurs: reducing labor supply to provide informal caregiving for the spouse, or staying at work and relying on formal caregiving. For example, reducing work hours, switching to a less demanding job, or leaving the workforce altogether are potential responses if caregiving needs are acute. Another possible response is increasing work hours in order to make up for lost spousal income or to pay for formal care and medical expenses. Taking unpaid leave from work is costly in that family resources are unambiguously reduced, even if one is guaranteed the opportunity to return following the time away from work; paid family leave reduces this cost by providing partial pay for time spent caring for a spouse that might otherwise be unpaid.

We next discuss a conceptual framework for how paid leave may affect time off from work related to caregiving and net employment in the long and short run in a partial equilibrium context. Because most paid leave laws in the U.S. do not also provide job protection, we consider only the financial role of paid leave and not the potential effects of a job return guarantee.<sup>5</sup> For clarity, we define the “potential caregiver” as the spouse whose health was unaffected and the “spouse” as the spouse who experienced the health shock or disability. We focus on direct effects

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employee usually has a premium share of \$100 per month through payroll deduction, with the employer paying \$500, the employee would still need to pay their \$100.

<sup>5</sup> Since FMLA pre-dated paid leave laws and covers a longer time for leave, many paid leave laws expect workers take their paid leave of absence in conjunction with their FMLA leave. Thus, FMLA is meant to act as the job protection for paid leave takers. Paid leave laws provide additional financial assistance that FMLA does not.

of paid leave on one's own labor supply decision, although a decline in working of one spouse could also indirectly affect the work decisions of the other either positively because of substitutability of non-market time in home production or negatively because of complementarity of leisure time. Evidence suggests that spousal leisure is in general complementary (Goux, Maurin, & Petrongolo 2014), implying a pull toward decreased work on the part of the potential caregiver, particularly if the health shock changes preferences such that spousal leisure becomes even more complementary (i.e., the shock increases desire to help and spend time with their spouse).

All else equal, we would expect increases in the number of people taking short-term leave from work in response to receiving paid leave compensation, as the price of taking leave is unambiguously lower as long as the time away from work is a normal good. The short-term duration of leave from work will also be affected. From the perspective of a standard static labor supply model, paid leave should be close to a pure income effect for workers who were already planning time away. We therefore expect that those who would have taken leave even in the absence of paid leave will likely increase the total duration of their leave if paid leave is available as long as the caregiving/leisure is a normal good. However, it is possible that caregiving leisure time is an inferior good, and the paid leave makes formal care as a substitute more affordable, implying a worker might shorten their total leave time in response.

The total effects on labor supply in the longer run are theoretically ambiguous. Unlike when paid leave is used for typical parental leave following the birth of a child, health events can sometimes require permanent caregiving. Consider the three long-run work outcomes for an employed person following a spousal health shock: continue working, stop working temporarily, and permanently stop working. Paid leave is unlikely to affect the long-term employment of

those who would have otherwise continued working, as they likely have either a strong preference for work or weak preference for caregiving, although it may increase their time away from work in the short-term by moving them to stop working temporarily. As discussed above, paid leave will likely encourage workers who would have otherwise temporarily stopped working to take a longer leave of absence. This could lead to increased permanent exits from the labor force particularly if human capital is quick to depreciate, but could also lead to decreased exits from the labor force if the increased time and monetary resources allow the potential caregiver to stabilize the home situation and increase their peace of mind about returning to work. It could also lead to improvements in productivity due to higher levels of job morale and tenure. Access to paid leave is not likely to affect the number of people who would otherwise permanently stop working after a spousal health shock, as they likely have strong preferences for caregiving that short-term benefits are not likely to be sufficient to shift; although for any on the margin, we expect paid leave to decrease their probability of exiting the labor market.

Heterogeneity in these responses is likely along several dimensions. Prior work has established that family caregiving is gendered (Glauber 2017), whether because of gender norms or preferences, so we present results by potential caregiver gender. The extent to which short-term leave durations increase or decrease in response to paid leave is likely to depend on the job protection available (such as FMLA) in the worker's labor market. For example, someone planning to quit their job in the absence of paid leave, perhaps because they wanted to take more time off than the job would allow and return to the labor market once their caregiving responsibilities were less acute, might choose instead to take a shorter total leave with the opportunity to return to their original job following the leave. We therefore consider heterogeneity by likely access to FMLA benefits using firm size and job duration as a proxy for

access to job protection and potentially voluntary paid leave. Whether (paid or unpaid) leave from work improves or decreases job match quality and productivity depends on the depreciation rate of overall human capital and the importance of firm-specific human capital (Baum & Ruhm, 2016). While we cannot observe these, we do consider heterogeneity by observed worker education level.

Paid sick leave may also change incentives for the spouse who experiences the shock to return to work themselves, which can affect family income and decisions about caregiving. This fundamentally cannot be separated from caregiver decisions if these choices are made at the household level. We therefore also examine the dynamics of spousal return to work in the context of paid leave and develop simple proxies for likelihood of return to work that can be examined empirically. For example, if the spouse is not the primary earner, the spouse's work decision may not be sensitive to availability of paid sick leave because their shock will have a smaller impact on the family budget. Another factor that may be important is the degree of expected permanence of the health shock or disability. For "permanent" health shocks and disabilities, the labor supply of the spouse is unlikely to be affected by the existence of paid sick leave because the severity of the health condition will preclude them from returning to work regardless of their access to paid leave. For "temporary" health shocks, paid sick leave could change the likelihood of a spouse eventually being able to return to work and consequently the choice of the potential caregiver. We therefore examine the labor supply responses to different types of spousal health shocks that proxy for likelihood of return to work, and also by whether the spouse or potential caregiver earned the majority of the household's income prior to the health event.

We also note the possibility of general equilibrium effects in the form of less overall hiring if this benefit, which is financed through required payroll taxes in both California and New Jersey, increase costs for employers. Prior work suggests that mandated sick pay benefits do not seem to reduce employment or wage growth, even though they do increase sick leave taken and employer benefit costs (Pichler and Ziebarth, 2020; Maclean, Pichler, and Ziebarth, 2020).

#### **4. Data**

The data for our proposed study are from the SIPP, which is a household based survey of nationally representative panels. The SIPP is a continuous series of panels, with each panel lasting approximately four years. For our study we use the 1996, 2001, 2004, and 2008 panels. Respondents in the SIPP participate in 9 to 12 interviews (or “waves”) depending on the panel; some information, such as income, family structure, and employment status, is provided through core questions that are asked in every wave, while other information, such as disability status and functional limitations, is provided during topical modules that are only asked in certain waves. Respondents provide employment information separately for each of the four months in every wave; however, due to the well-documented issues related to seam bias in the SIPP data (Moore 2008), we create summary employment measures for each wave.

We consider three different types of spousal disability or health shocks in the SIPP data: a work-limiting chronic health condition or disability, a work-limiting illness, and any disability (not necessarily work-limiting). An individual is considered to have the work-limiting chronic health condition or disability if 1) he or she either reported having a physical, mental, or other health condition that limits the kind or amount of work they can do or 2) reported not working at a job at any point during the wave because of a chronic health condition or disability. A work-

limiting illness is defined as not working at any point during the wave because of an illness. All of the work-limitation questions are asked as part of the core questions during every wave and every panel. A disability is defined as responding yes to one of the six-questions about having difficulty with hearing, vision, cognitive, ambulatory, self-care or independent living. These disability questions are asked three times during the 2008 panel in a topical module.

We then examine the labor supply decisions of these individuals and of the potential caregivers in the six waves that occurred during the two years before the onset of the health shock and the six waves that occurred during the two years after. The outcomes we examine are 1) whether spouse/potential caregiver had a job for all weeks in the wave, 2) whether spouse/potential caregiver had a job for at least one week in the wave, 3) among those working, the percent of months in the wave the spouse/potential caregiver was working full time (35+ hours), 4) whether the potential caregiver did not have a job at any point during the wave because he or she was taking care of children or other persons, 5) whether the potential caregiver was working less than 35 hours in some weeks during the wave because he or she was taking care of children or other persons, and 6) the spouse/potential caregiver's total earnings during the wave.

One thing to note is that a spouse or potential caregiver who takes paid leave is considered in the SIPP data as having a job even though he or she is not working. In contrast, a spouse or potential caregiver who takes time off to recover or provide caregiving but does not have access to paid leave either leaves his or her job or takes unpaid leave, both of which are considered as not having a job in the SIPP. As a result, we use the SIPP to measure the extent to which people are less likely to leave their job (overall and specifically to provide caregiving) or take unpaid leave, but not the extent to which they use paid leave. In other words, the measures of working

include paid leave in them, so someone who took paid leave rather than unpaid would be observed as having higher workforce participation (assuming correct reporting). We are unable to use the SIPP topical module on caregiving because respondents are only asked about whether they provided caregiving within the last month, which does not address caregiving decisions for the health shocks that occur at other times in the panel.

For the paid leave analysis, we limited our sample to respondents with spouses experiencing the onset of a disability or health shock during one of the waves of the SIPP, who are between the ages of 18 and 64, and who reported living in a state that either has a paid leave policy during our analysis period (California or New Jersey) or a state that will be implementing a paid leave policy in the near future (Rhode Island, Massachusetts, Washington, Washington D.C., Connecticut, and Oregon). We also dropped potential caregivers who had never worked in the two years prior to the health shock. This identifies 3,244 potential caregivers of spouses who experienced a work-limiting chronic health condition or disability, 1,663 potential caregivers of spouses who experienced a work-limiting illness, and 412 potential caregivers of spouses who experienced any disability.

Table 1 shows the summary statistics for the potential caregivers of spouses who experienced a health shock in the wave before the event occurred in the set of states that eventually passed a paid leave policy. Among the 3,244 individuals whose spouse experienced a work-limiting chronic health condition or disability, the average age is 46, 46 percent are female, and 41 percent have a high school education or less. Approximately 81 percent are white, 8 percent are Black, and 11 percent are other; 9 percent identify as Hispanic. Forty-two percent are from California, 11 percent are from New Jersey, and 48 percent come from the other states. Almost all (92 percent) worked at least one week in the wave before the event. There are few



major differences in the characteristics of potential caregivers when we consider those whose health event was a work-limiting illness rather than a work-limiting chronic health condition or disability (except that they are a few years younger, on average), suggesting that the types of families experiencing these events may be similar. Those whose spouse experienced any disability are also similar, but are slightly older, have fewer children and are less likely to have worked in the wave before the health event. They are also more likely to have access to paid leave, but this is because this question was only asked in the 2008 panel when both California and New Jersey had implemented their paid leave policies. Employment prior to the health events is also largely similar, with 80 percent of those whose spouse experiences a work-limiting chronic health condition or disability reporting that they had a job all weeks, 82 percent of those whose spouse experiences a work-limiting illness, and 74 percent of those whose spouse experiences any disability. Average reported monthly earnings are quite similar as well, ranging from roughly \$3200-\$3500 across the types of shocks.

Spouses experiencing a work-limiting chronic health condition or disability, also summarized in Table 1, are generally similar in age to the potential caregivers, but are more likely to be male (54 percent). Education levels are largely similar, as is the distribution of race and ethnicity, and the number of children and geographic location are mechanically the same. In the wave prior to the reported event, just 56 percent reported having a job in all weeks in the wave with average monthly earnings of approximately \$2000. Although similar for those experiencing any disability, this differs somewhat for those experiencing a work-limiting illness who were more likely to be working (66 percent) and had higher reported earnings (\$2800)

## **5. Methods**

The first step of our analysis is to present the mean adjusted trends in labor supply decisions of the spouses and potential caregivers in the 6 interview waves (which represents a 24 month period) before the spousal disability or health shock and in the 6 interview waves (or 24 months) after for respondents in all 50 states and DC. This analysis shows how spouses and potential caregivers change their labor supply and/or caregiving behavior after the health shock, regardless of the availability of paid leave. To do this we estimate Equation 1 below.

$$y_{its} = \alpha_i + \lambda_t + \theta_s \lambda_t + numkids_{its} + \sum_{r=-7}^{-2} \delta_r D_{it}^r + \sum_{r=0}^7 \delta_r D_{it}^r + \varepsilon_{its} \quad (1)$$

where  $y_{its}$  is a labor market or caregiving outcome for the potential caregiver  $i$ , during year  $t$ , living in state  $s$ . The specification allows for individual fixed effects  $\alpha_i$ , calendar year fixed effects  $\lambda_t$  (recall that there are multiple waves per calendar year), state fixed effects  $\theta_s$  (subsumed into the individual fixed effect, with state of residence defined at the time of the health event), and the number of children the person has at time  $t$ ,  $numkids_{its}$ .  $D_{it}^r$  is a series of dummy variables indicating the waves before and after the onset of the health event of the spouse, where the 7<sup>th</sup> (or -7<sup>th</sup>) “wave” bins together 7 or more (less) waves and the omitted period is the wave before the health event. In all analyses, we use the SIPP survey weights to compensate for the SIPP’s differential sampling rates and oversampling of certain populations.<sup>6</sup> This analysis can be interpreted descriptively or could be interpreted as the causal effect of the

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<sup>6</sup> We use the person-level sampling weight assigned to each individual in the last wave of the panel where they were observed.

disability or health shock under the assumption that the timing of the reported disability or health shock is unrelated to the outcome conditional on the controls in the model.

We then use an event study difference-in-differences strategy similar to Byker (2016) to estimate the causal impact of paid family leave on these caregiving and labor supply decisions. Specifically, we include those who live in California after 2004 and in New Jersey after 2009 as a treatment group because these states adopted paid leave policies in years that are observed in our study period. Those who live in California before 2004, in New Jersey before 2009, or in Rhode Island, New York, Washington D.C., Washington, Massachusetts, Connecticut and Oregon are used as a control group. These states are a useful control group since they have since adopted paid leave policies that are not active during our study period. Our model is of the following form:

$$y_{its} = \alpha_i + \lambda_t + \theta_s \lambda_t + numkids_{its} + \sum_{r=-7}^7 \delta_r D_{it}^r + \sum_{r=-7}^7 \beta_r D_{it}^r * Policy_{ts} + \varepsilon_{its} \quad (2)$$

where  $Policy_{ts}$  equals one if a state has an active paid leave policy (that is, California after 2004 and New Jersey after 2009) and zero otherwise. All other variables are defined similar as our earlier equation; we again omit the period prior to the disability or health shock as the reference.  $\beta_r$  are the coefficients of interest that measure the effect of paid leave laws pre- and post- onset. Standard errors are clustered at the individual level. We estimate this model separately for each of the outcomes defined above.

This model is somewhat similar to a triple differences estimator in that it compares people before and after a spousal health event, across states that did and did not have a paid leave

policy in place, before and after the paid leave policy.<sup>7</sup> It can be interpreted causally under two main assumptions. First, we assume that the *timing* of the spousal health event is unrelated to the existence of paid leave in a state; this is a form of strict exogeneity. Second, we assume a form of parallel trends, which means that conditional on the covariates included in the model, event time trends in the comparison groups (different states and same-state prior time periods) would have evolved similarly to the treated groups in the absence of the paid leave policies.

The final step of the analysis is to examine heterogeneity and summarize the event study findings by estimating a simpler version akin to a difference-in-differences model that compares the spouse's and potential caregiver's labor supply and caregiving decisions before and after the health event across those who have access to paid leave versus those who do not have access to paid leave. We estimate the following model:

$$y_{its} = \alpha_i + \lambda_t + \theta_s \lambda_t + numkids_{its} + \varphi PostEvent_{it} + \beta(Policy_{ts} * PostEvent_{it}) + \varepsilon_{its} \quad (3)$$

In equation (3), event time is effectively compressed into two periods, before and after the health event. For this model,  $\beta$  is the coefficient of interest. We estimate this model separately by gender, highest education level (spouse or potential caregiver had high school degree or less versus more than a high school degree), primary earner status before the spousal health shock (spouse or potential caregiver earned at least half of the household earnings versus less than half), and FMLA eligibility. We considered a spouse or potential caregiver eligible for FMLA if they had been working for at least a year at a firm with more than 99 employees and not eligible for FMLA if they had been working for a firm for less than a year or the firm had

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<sup>7</sup> Because of the structure of the SIPP panel, which limits the years in which health events can be defined, we cannot include all of the second order interactions between event time and calendar time or event time and state.

less than 24 employees. We do not include individuals in the FMLA analysis if the respondent categorizes the firm as having between 24 and 99 employees.<sup>8</sup>

## **6. Results**

### *a. Employment and Caregiving Outcomes following a Spousal Disability or Health Shock*

The estimates of the mean adjusted impacts of a spousal disability or health shock on the labor supply and caregiving decisions for all spouses and potential caregivers regardless of paid leave status (Equation 1) are presented in Figures 1-4 and Figures A.1-A.2. Each figure illustrates the event study coefficients and 95 percent confidence intervals for the relevant labor supply outcomes based on the three types of spousal events: a work-limiting disability/chronic health condition (Figures 1-2), a work-limiting illness (Figures 3-4), and any disability (Figures A.1-A.2). The coefficients themselves are reported in Tables A.1-A.6.

Figure 1 demonstrates that following a work-limiting disability or chronic health condition, labor supply of the individual experiencing the health shock (i.e. the “spouse”) decreases across all labor supply outcomes throughout the observation period. Spouses are 7 to 10 percentage points less likely to report working all weeks in waves after the shock relative to the wave before, 8 to 10 percentage points less likely to report working some weeks, and 5 to 7 percentage points less likely to report working full time, with a decline in net monthly earnings of \$200-400 (Table A.1). Since for many outcomes, the average was even higher prior to the health event, the total impacts are even larger. These impacts appear to be persistent, with the coefficients at 6 waves after very similar to those immediately following the shock.

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<sup>8</sup> We eliminate this group because FMLA eligibility is based on whether an employer has 50 or more employees, and this group potentially contains both FMLA eligible and ineligible employees.

Potential caregivers also respond to the spousal work-limiting disability or health shock (Figure 2, Table A.2) by decreasing their labor supply, as they are 2 to 7 percentage points less likely to be working all or some weeks during the waves after the shock relative to the wave before; there is some evidence that they are increasingly less likely to work over time. There is some evidence that this is due to caregiving behavior; the fraction of potential caregivers who did not work because of caregiving increased after the spousal work-limiting disability or health shock, although these impacts are imprecisely measured (the effect is only statistically significant in the wave immediately after the shock). We do not see much evidence of reduced hours because of caregiving, which is consistent with there not being an overall reduction in full time work. Somewhat anomalously, there is some evidence of higher earnings although it may reflect an overall upward trend.

Figure 3 shows that the spousal decrease in labor supply after a work-limiting illness is smaller and more likely to be on the intensive margin compared to the response to a work-limiting disability or chronic health condition. Specifically, spouses are 2 to 5 percentage points less likely to work full time, although these effects are not statistically significant (Table A.3). These results suggest that health events qualifying as work-limiting illnesses may be more short-term compared to other types of health events and possibly have a reduced need for caregiving or income support. Perhaps unsurprisingly, we see a smaller response from potential caregivers of spouses with work-limiting illnesses as well: there is a 3 to 7 percentage point decrease in the probability of working at least one week during the wave, with no noticeable change in other outcomes (Figure 4, Table A.4).

For the onset of any disability, measured only in the 2008 panel, there is limited evidence of a negative labor supply impact for the spouse experiencing the shock (Figure A.1, Table A.5).

We find evidence that working at least one week during the wave declined for the spouse, but there was a downward trend leading up to the disability onset in addition to a small number of observed onsets. We also see no evidence that the labor supply of the potential caregiver responds to the onset of any disability (Figure A.2, Table A.6). Given that these disabilities are not defined to be work-limiting, it is possible that they may require fewer caregiving resources.

Overall, the results suggest that both the spouse and potential caregiver reduce their labor supply following the spouse experiencing a work-limiting disability or chronic health condition, and to a lesser extent, a work-limiting illness, and that these effects persist over time. There was no clear effect, however, on labor supply when a spouse experienced any disability. The evidence also suggests that the potential caregiver's decrease in labor supply may be due to caregiving for those whose spouse has a work-limiting disability or chronic health condition, although these results are imprecisely measured. These results establish changes in spousal work following a work-limiting disability/chronic health condition, or work-limiting illness and support the hypothesis that potential caregivers experience a weakening of their labor force attachment as well.

*b. Impact of Paid Leave Laws following a Spousal Disability or Health Shock*

We next consider whether paid leave laws shifts the labor supply responses to disability or health shocks using estimates derived from the model described in Equation 2. The event study coefficients are graphically displayed in Figures 5-8 for work-limiting shocks and Figures A.3-A.4 for any disability. These results are summarized using the Equation 3 difference-in-differences method in the first rows of Table 2, 4, and A.7 for spouses and Table 3, 5, and A.8 for potential caregivers; however, we rely on the event studies to guide interpretation given that the difference-in-differences estimates do not reveal any potential pre-trends and also use

weights that sometimes produce estimates that do not capture the trends observed in the event study graphs (Goodman-Bacon 2018).

For spouses experiencing a disability or health shock, the only effect we find of paid leave policy on their labor supply is a small increase in the probability of working full time after a work-limiting disability or chronic health condition, although this effect is not statistically significant (Figure 5).<sup>9</sup> This limited impact may be because paid sick leave is more commonly provided by employers than paid family leave (Sawhill et al. 2019), so mandating paid leave may have a smaller impact on spouses experiencing the disability or health shock than their potential caregivers.

For potential caregivers, we find evidence that paid leave mandates reduce the likelihood that they decrease their work hours because of caregiving after their spouse experiences a work-limiting disability or chronic health condition, with a statistically significant difference-in-differences estimate of a 1.5 percentage point decline (Figure 6, Table 3). Among potential caregivers of spouses experiencing a work-limiting illness, the point estimate for the reduced hours because of caregiving outcome in the difference-in-differences is positive and statistically different from zero, but the event study suggests this may be driven by an upward trend (Figure 8, Table 5). We do not find evidence of an impact of paid leave mandates on our other labor force or caregiving outcome measures for potential caregivers. In the conclusion section, we discuss possible explanations for these findings of limited impact of paid leave mandates on labor force attachment of potential caregivers.

### *c. Estimates of Paid Leave Effects by Subgroups*

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<sup>9</sup> The decline in working at least one week after a work-limiting disability or chronic health condition is statistically different from zero in the difference-in-differences model (Table 2), but the event study shows this is driven by trends in the pre-period.



The difference-in-differences coefficients that estimate the effect of paid leave laws on the labor supply decisions for spouses experiencing a health shock or disability and their potential caregiver (Equation 3), overall and by subgroup, are shown in Table 2-5 for work-limiting shocks and Tables A.7-A.8 for any disability. Our discussion focuses on identifying whether there are particular subgroups that drive the main event study results discussed in the previous section: namely, that paid leave mandates 1) increase the probability of working full time for spouses who experience a work-limiting disability/chronic health condition and 2) reduce the likelihood that potential caregivers decrease their work hours because of caregiving after their spouse experiences a work-limiting disability/chronic health condition. We also discuss any heterogeneous results among subgroups that are masked in the overall results. We will not discuss subgroup results that have already been determined to have a strong pre-trend or that correspond to null results (that are not masked by heterogeneous effects) in the overall event study analysis.

*i. Gender*

We do not see a gender difference in the impact of a paid leave mandate on the probability of full-time work for spouses experiencing a work-limiting disability/chronic health condition (Table 2), but some differences by gender are evident in the results for potential caregivers (Table 3). Female potential caregivers with spouses who experience a work-limiting disability/chronic health condition and had a paid leave mandate were less likely (2.7 percentage points) to reduce work hours because they were providing care than those without a paid leave mandate. We do not see a similar impact of paid leave laws for male potential caregivers on their likelihood of reducing hours due to care, suggesting that paid leave laws may have a bigger positive impact on the labor supply of female potential caregivers than male potential caregivers.

We also observe some heterogeneous effects of paid leave laws by gender that were masked in the overall results. For example, Table 4 shows that female spouses who experience a work-limiting illness are more likely (4.5 percentage points) to work full-time after their health shock if there is a paid leave mandate while men are only 1.2 percentage points more likely to work full time afterwards. However, these same men are more likely (6 percentage points) to work all or some weeks after their health shock if there is a paid leave mandate, which is not seen for women. These findings suggest that in the case of a short-term illness, paid leave laws improve labor force attachment on the intensive margin for women experiencing the shock and on the extensive margin for men.

*ii. Education*

Given that it is more likely that firms with higher human capital investment offer paid leave options in the absence of mandates, we also divide potential caregivers based on whether they had more than a high school education (higher educated) or a high school diploma or less (lower educated). The results in Table 2 show that lower-educated spouses who experience a work-limiting disability/chronic health condition are more likely (2.6 percentage points) to work full time if there is a paid leave mandate, but we do not find an effect for higher-educated spouses. We also find that lower-educated potential caregivers are less likely (2.4 percentage points) to report reduced work hours because of caregiving after a spouse's work-limiting disability/chronic health condition if there is a paid leave mandate, although higher-educated potential caregivers are not (Table 3). These larger impacts among the lower educated group are supportive of a hypothesis that human capital levels may play a role in labor supply decisions following a spousal work-limiting disability or chronic health condition.

While the overall results did not show an impact of paid leave laws on the labor supply of spouses after a work-limiting illness, the subgroup analysis reveals that higher-educated spouses are more likely to work all or some weeks (2.4 percentage points) or work full time (5.5 percentage points) after a work-limiting illness if there is a paid leave mandate, but there is no corresponding impact for lower-educated spouses (Table 4). This suggests that while paid leave laws are more beneficial for lower-educated spouses and their potential caregivers after a long-term disability or health shock, higher-educated spouses benefit more from paid leave laws after a short-term shock.

*iii. Earnings and Likely FMLA status*

Finally, we performed subgroup analysis based on whether the spouse or potential caregiver earned more than 50 percent of the family household income prior to the spouse's disability or health shock and if they worked at a firm that would result in them being more likely to be eligible for FMLA. For spouses with a work-limiting disability/chronic health condition (Table 2), there is evidence that paid leave mandates increased the likelihood of full-time work among those who were the primary earner (4.5 percentage points) or who likely had access to FMLA (3 percentage points). Among potential caregivers whose spouse had a work-limiting disability/chronic health condition, we found that those who were not primary earners and had access to FMLA were less likely (1.2 and 2.2 percentage points, respectively) to reduce work hours due to caregiving if they had a paid leave mandate compared to a smaller estimated effect for those who were primary earners or probably did not have access to FMLA (Table 3). These findings suggest that having a paid leave mandate together with job protection under FMLA is most likely to increase labor force attachment for spouses and their potential

caregivers, particularly those whose family budget is more impacted by the spouse's work-limiting disability or chronic health condition.

We also observe some heterogeneous effects among the FMLA subgroups that were masked in the overall results. For example, Table 3 shows that potential caregivers who likely have access to FMLA were also more likely (4 percentage points) to have worked all weeks and have higher earnings (\$452) after their spouse's work-limiting disability/chronic health condition, while those who do not have FMLA access were less likely to work all weeks (6.4 percentage points) and have lower earnings (\$163). We also see that spouses with likely access to FMLA are more likely to work all weeks or work full time after a work-limiting illness. These findings further support the hypothesis that paid leave mandates increase labor market outcomes for spouses and potential caregivers who are likely to have access to FMLA.

## **7. Conclusions**

In this paper, we examine labor market and caregiving decisions of potential caregivers and their spouses before and after the onset of different types of spousal disability and health shocks. We find clear evidence of long-term declines in the labor supply of potential caregivers and their spouses after a work-limiting disability or chronic health condition and smaller effects after a work-limiting illness. This evidence suggests that there may be a role for paid leave to provide transitional assistance to families at the time of onset.

In order to examine whether policy can reduce these labor market declines of potential caregivers, we evaluate the impact of paid leave mandates in California and New Jersey on the labor supply decisions of spouses and their potential caregivers following a spousal disability or health shock. For the individuals who themselves experienced a work-limiting disability or chronic health condition, we find that paid leave laws may slightly increase their probability of

returning to full-time work after the shock. For the potential caregivers, we find that paid leave laws reduce the probability of decreasing working hours to provide care after a spouse's work-limiting disability or chronic health condition. We generally do not find evidence of an impact of paid leave mandates on our other employment and caregiving measures. We also find that paid leave mandates tend to be associated with the largest increase in labor force attachment for female or lower-educated potential caregivers whose spouse experiences a work-limiting disability or chronic health condition, as well as those who likely have access to FMLA.

There are some limitations of our work that may hinder our ability to detect the impacts of paid leave mandates on the labor supply after a spouse's disability or health shock. One limitation is the small number of states that have paid leave mandates, which limits the number of people who have been exposed and hence the sample size for measuring effects. It is possible that the small sample size is an explanation for why many of our findings are not particularly precise, and that with broader adoption more families experiencing the policies could provide stronger evidence. Another limitation is that we are unable to directly observe whether individuals had prior access to paid leave through an employer, which could dilute our results. Finally, the measures of labor force attachment available in the SIPP simply may not capture increases in short-run durations of leave taking and so any impacts may be occurring on unmeasured margins with limited long-run effects.

In addition to the study limitations above, it is possible that the paid leave mandates in California and New Jersey did not have a large impact on labor supply decisions after a spouse's disability or health shock compared to the impact after childbirth that has been well documented in the literature. One potential reason may be related to lack of awareness of coverage for spousal care, since the policies are heavily focused on caring for a newborn child or maternity

leave. Surveys conducted in the first three states to mandate paid leave (California, New Jersey, and Rhode Island) consistently find that workers are not aware that paid leave also applies for spousal care in addition to childcare (Feinberg 2018). Broader implementation at the national level could increase awareness, as well as additional outreach or marketing within these states. Another reason paid leave mandates may have had a limited impact could be the nature of the disability and health shocks, which may be too severe and long-term for six weeks of paid leave at 55 to 67 percent wage replacement to be a significant factor in family decision-making. Paid leave is not intended to be a long-term support for potential caregivers, but it is possible these benefits would be more useful as short-term stabilizers after a disability or health shock if the wage replacement rate were higher and/or the duration were longer. Finally, it could be the case that unobservable heterogeneous effects cancelled each other out to cause a null net result; for example, if one's alternative to having paid leave were quitting a job or being fired, we would expect paid leave to result in more hours and higher earnings and employment, but if the alternative were continuing the job under increased pressure, we would expect paid leave to result in fewer hours and lower earnings but similar income as a result of paid leave. It is difficult to proxy for these potential counterfactuals in the available data.

A small impact of paid leave mandates on measured labor market outcomes does not necessarily mean small welfare effects because, as demonstrated by other work on social insurance, people may be undertaking costly unmeasured strategies to mitigate the effects of the shock (Chetty & Looney 2007). For example, if in the absence of paid leave, a potential caregiver were holding on to a job at the expense of their physical and mental well-being, and paid leave allowed them to keep the job while smoothing their income and relieving a potential stressor, there would be positive welfare effects even without an employment effect. Future work

should consider the impact of paid leave mandates on additional outcomes that include well-being measures, in addition to using data from the states with newly passed laws to increase the likelihood of detecting labor supply effects. This will help inform policy on paid leave laws for potential caregivers.

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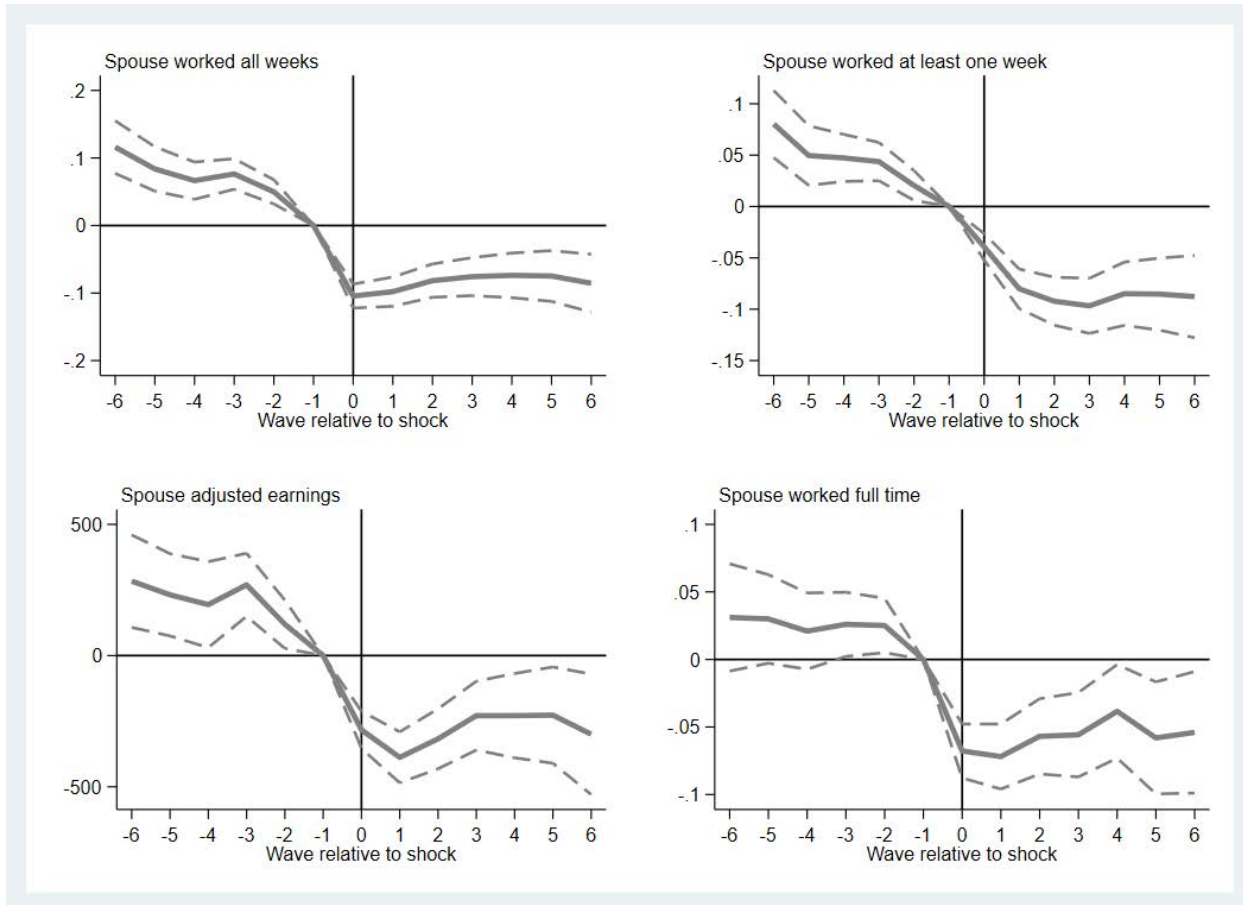
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Table 1: Average characteristics of potential caregivers and spouses by spousal disability or health shock

	Work-limiting chronic health condition or disability	Work-limiting illness	Any disability	Work-limiting chronic health condition or disability	Work-limiting illness	Any disability
	Caregivers			Spouses		
<b>Sample size</b>	3244	1663	412	3244	1663	412
Age in the wave before event	46.06	43.89	48.59	46.54	43.99	49.66
Female	0.46	0.45	0.49	0.54	0.55	0.51
Education						
Less than high school	0.15	0.11	0.11	0.17	0.11	0.13
High school	0.26	0.26	0.24	0.27	0.24	0.25
Some college	0.16	0.18	0.12	0.16	0.17	0.11
Technical degree	0.17	0.17	0.24	0.17	0.18	0.25
College degree	0.16	0.18	0.17	0.15	0.20	0.17
Graduate degree	0.10	0.10	0.13	0.08	0.09	0.09
Race						
White	0.81	0.81	0.84	0.81	0.80	0.82
Black	0.08	0.07	0.04	0.08	0.08	0.04
Other	0.11	0.12	0.12	0.11	0.12	0.14
Hispanic	0.09	0.07	0.16	0.09	0.06	0.17
Number of kids	0.98	0.94	0.83	0.98	0.94	0.83
Access to paid leave	0.19	0.16	0.48	0.19	0.16	0.48
State						
California	0.42	0.36	0.33	0.42	0.36	0.33
New Jersey	0.11	0.10	0.15	0.11	0.10	0.15
Other	0.48	0.54	0.52	0.48	0.54	0.52
Employment outcomes in the wave before event						
Had a job all weeks in the wave	0.80	0.82	0.74	0.56	0.66	0.56
Average monthly earnings	3155.79	3496.27	3392.81	1984.82	2784.72	1971.40
Caregiving outcomes in the wave before the event						
Not working because of caregiving	0.02	0.03	0.03			
Working less than 35 hours a week because of caregiving	0.02	0.03	0.02			

Data source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels. Includes only states that eventually implement a paid leave policy. Outcomes are measured in the wave before the spouse's health shock or disability occurred.

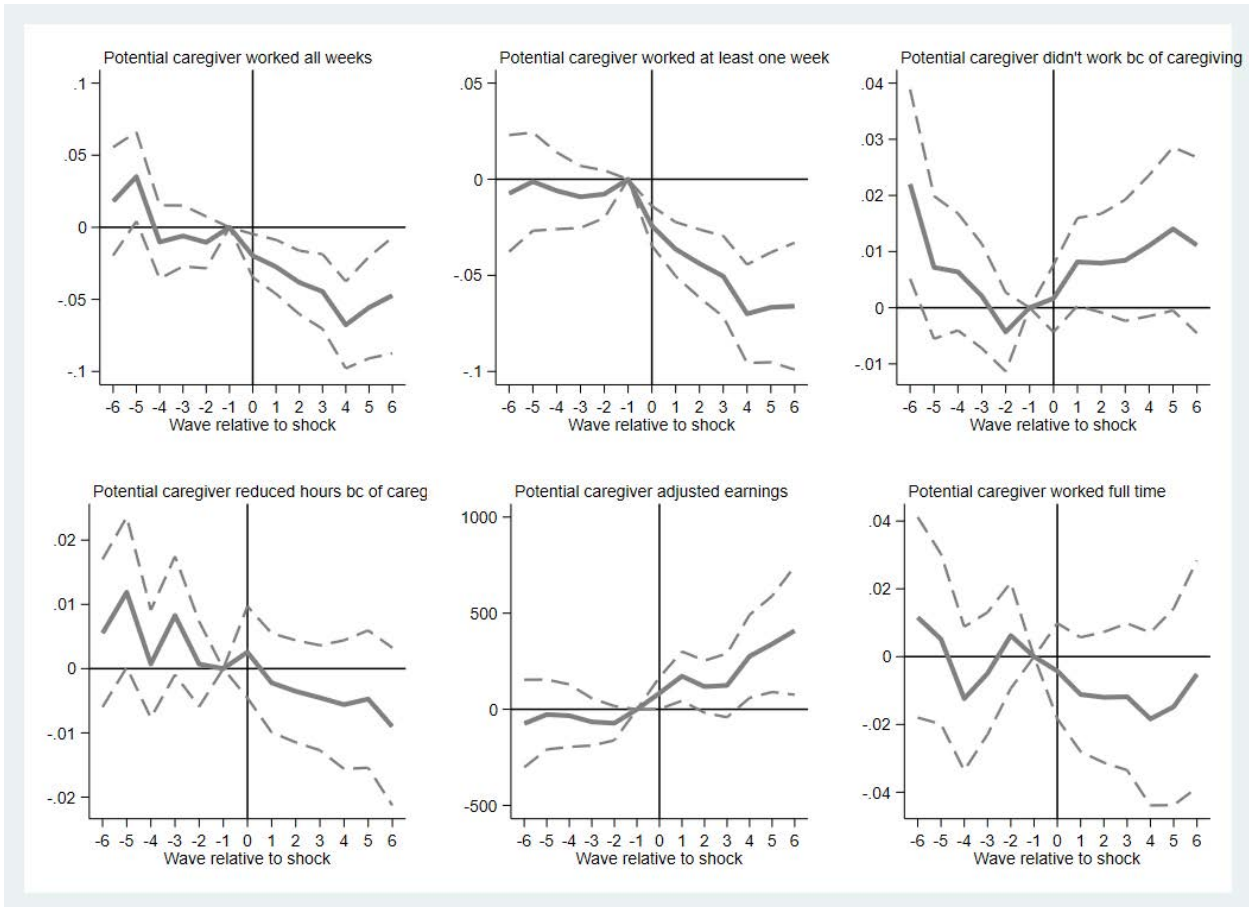
Figure 1: Mean Adjusted Outcomes for Labor Supply Decisions and Earnings of Spouse Before and After Spouse Work-Limiting Disability or Chronic Health Condition



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 1 in text).

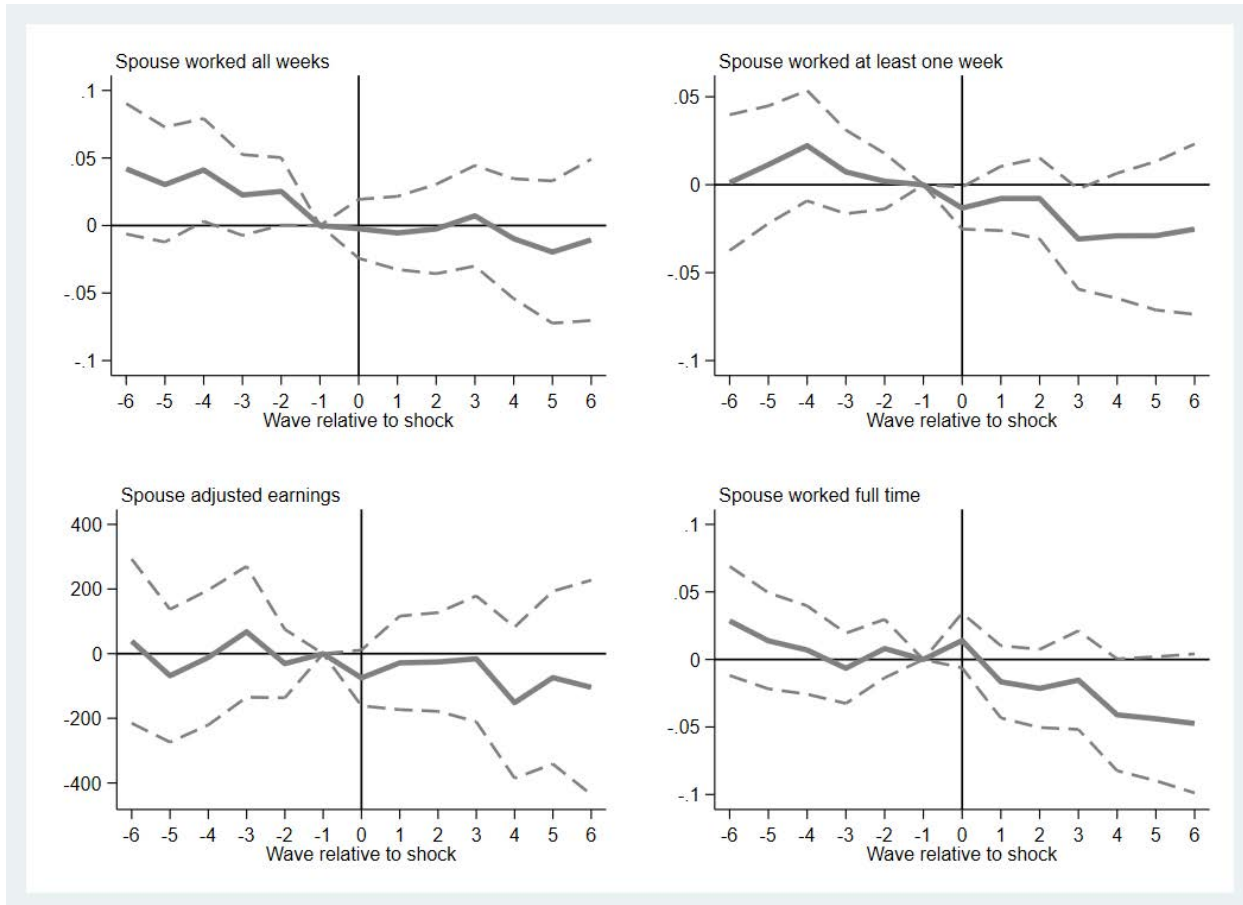
Figure 2: Mean Adjusted Outcomes for Labor Supply Decisions and Earnings of Potential Caregiver Before and After Spouse Work-Limiting Disability or Chronic Health Condition



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported spousal health shock onset between period -1 and 0, with period -1 omitted (Equation 1 in text).

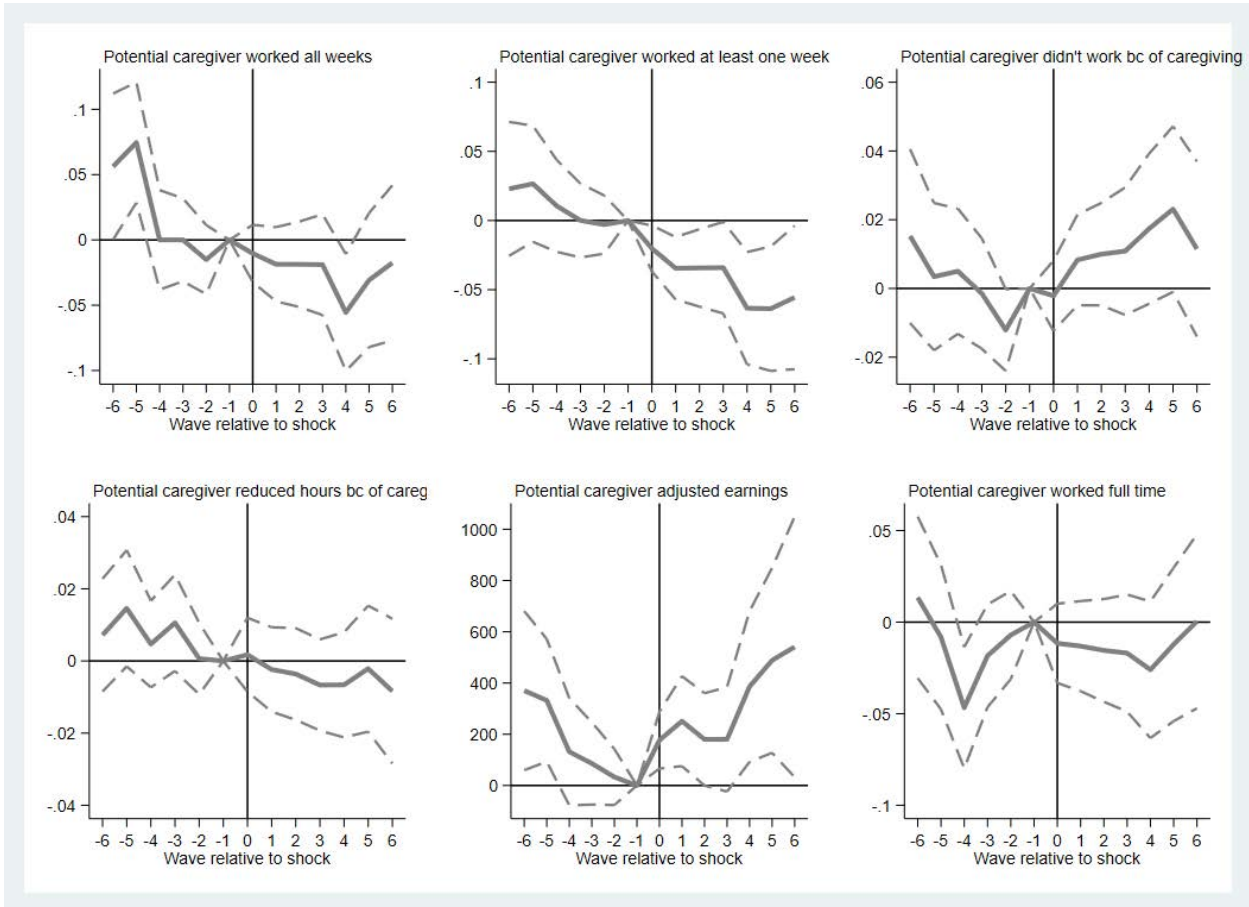
Figure 3: Mean Adjusted Outcomes for Labor Supply Decisions and Earnings of Spouse Before and After Spouse Work-Limiting Illness



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 1 in text).

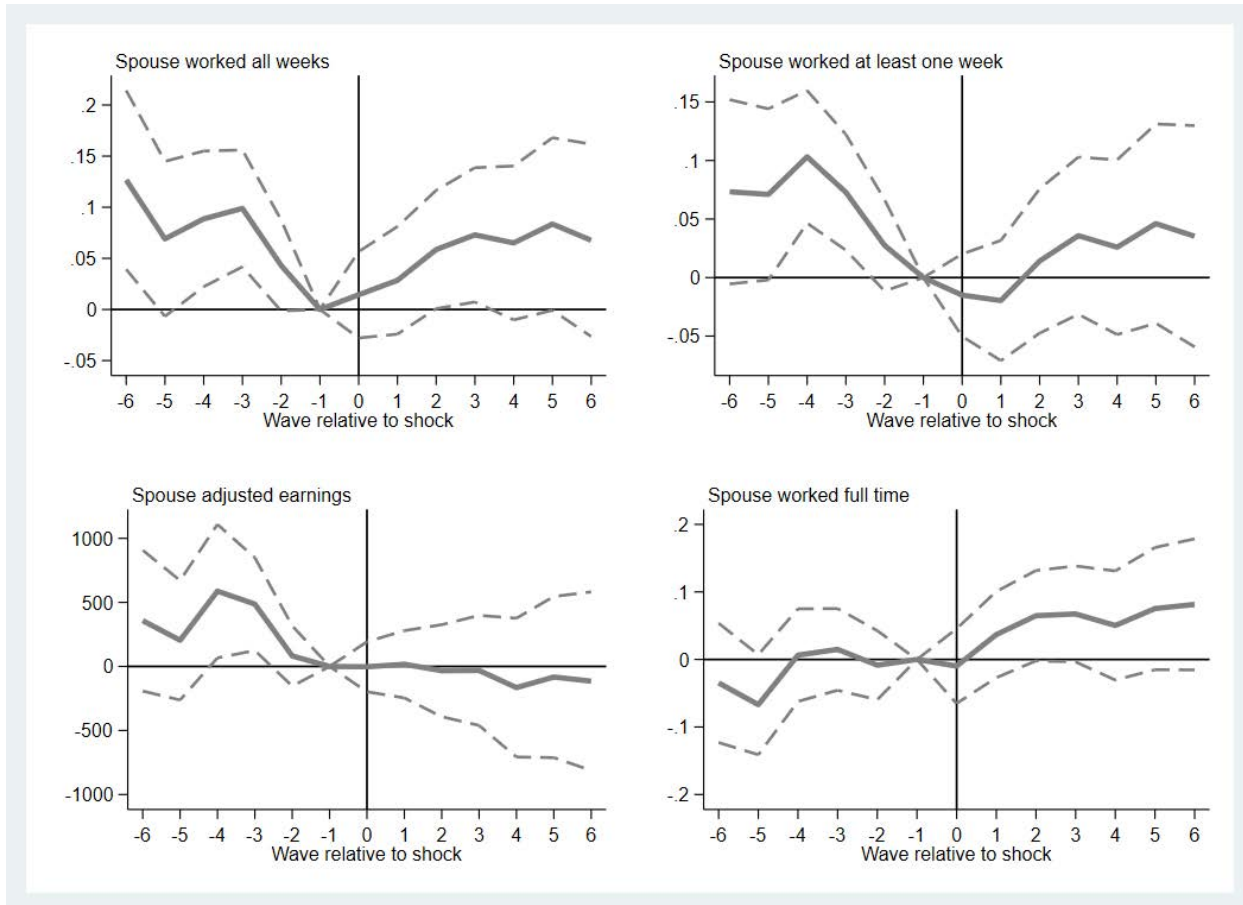
Figure 4: Mean Adjusted Outcomes for Labor Supply Decisions and Earnings of Potential Caregiver Before and After Spouse Work-Limiting Illness



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported spousal health shock onset between period -1 and 0, with period -1 omitted (Equation 1 in text).

Figure 5: Impact of Paid Leave on Spousal Labor Supply Decision and Earnings Before and After Spousal Work-Limiting Disability or Chronic Health Condition.



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 2 in text).



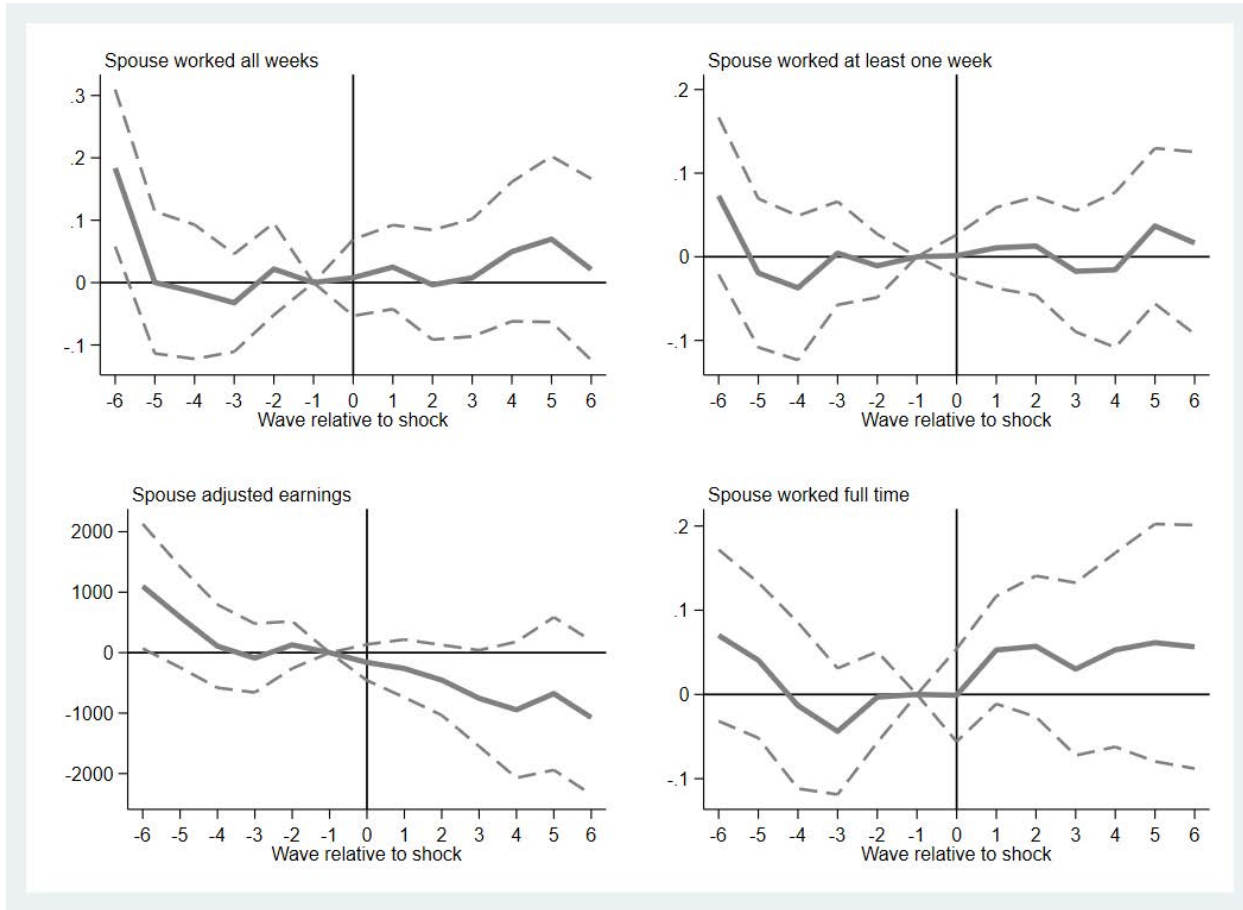
Figure 6: Impact of Paid Leave on Potential Caregiver Labor Supply Decision and Earnings Before and After Spousal Work-Limiting Disability or Chronic Health Condition.



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 2 in text).

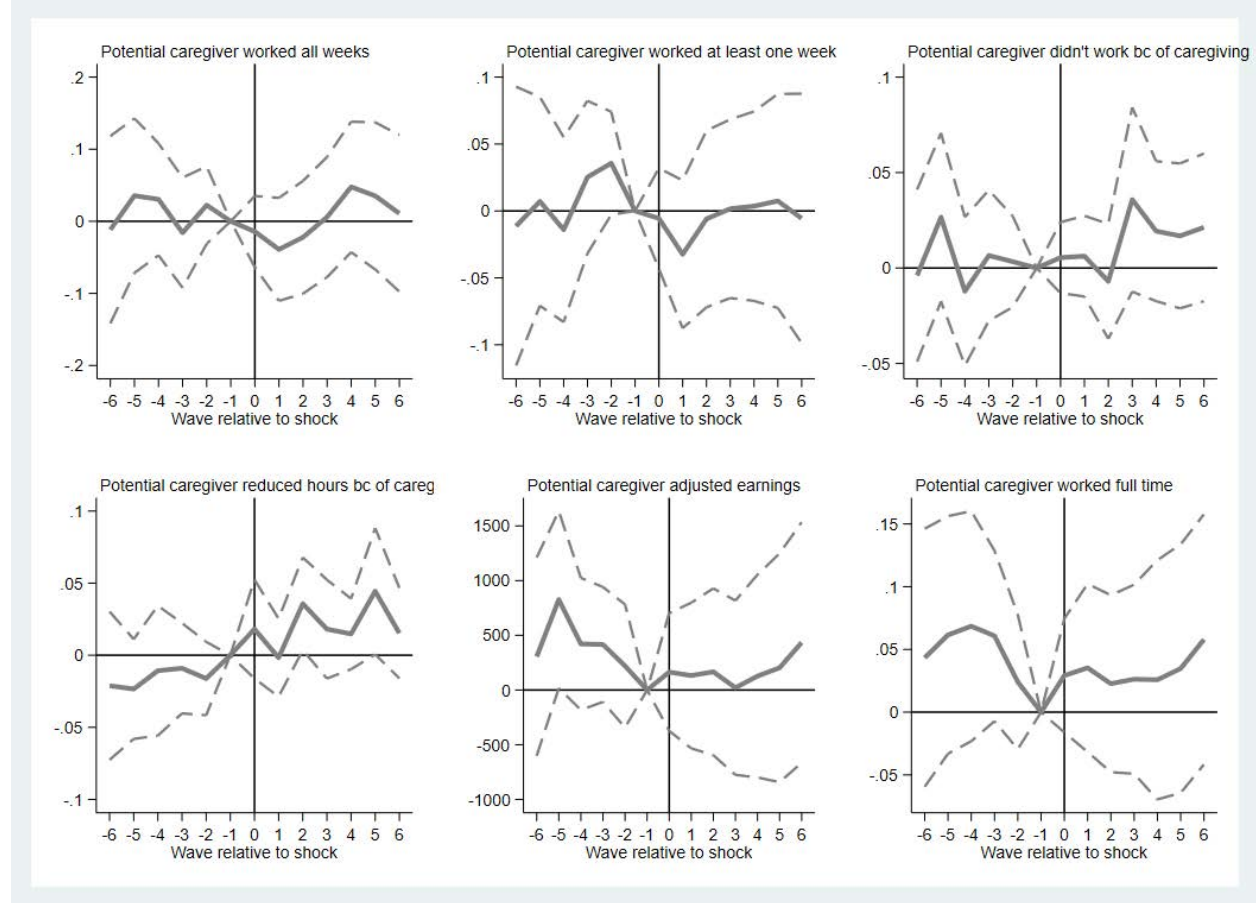
Figure 7: Impact of Paid Leave on Spousal Labor Supply Decision and Earnings Before and After Spousal Work-Limiting Illness



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 2 in text).

Figure 8: Impact of Paid Leave on Potential Caregiver Labor Supply Decision and Earnings Before and After Spousal Work-Limiting Illness



Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 2 in text).

Table 2: The Impact of Paid Leave on Spousal Labor Supply Decisions and Earnings After a Work-Limiting Disability or Chronic Health Condition, by Subgroup

	(1)	(2)	(3)	(4)
Sample of Spouses	Worked All Weeks	Worked Some Weeks	Earnings	Working Full Time
All	-0.0193 (0.0221)	-0.0473* (0.0215)	-186.7 (139.4)	0.0102 (0.0215)
Female	0.0149 (0.0286)	-0.0242 (0.0286)	-20.81 (115.8)	0.0116 (0.0305)
Male	-0.0625 (0.0341)	-0.0765* (0.0320)	-412.6 (279.5)	0.0138 (0.0299)
Higher Educ.	-0.0364 (0.0278)	-0.0436 (0.0262)	-225.6 (229.2)	0.00418 (0.0266)
Lower Educ.	-0.000123 (0.0360)	-0.0502 (0.0358)	-137.7 (119.3)	0.0257 (0.0377)
Primary Earner	-0.0139 (0.0350)	-0.0692* (0.0269)	-95.15 (238.5)	0.0454 (0.0256)
Not Primary Earner	-0.00647 (0.0246)	-0.0202 (0.0244)	-179.7 (142.8)	-0.00301 (0.0267)
FMLA	0.0173 (0.0547)	-0.0655 (0.0496)	-417.9 (418.5)	0.0326 (0.0374)
No FMLA	-0.0408 (0.0249)	-0.0517* (0.0243)	-79.19 (99.51)	-0.0115 (0.0295)

Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses. Table shows coefficient of interest from estimates of Equation 3 for relevant outcome and subgroup.

Table 3: The Impact of Paid Leave on Potential Caregivers' Labor Supply Decisions and Earnings After a Work-Limiting Disability or Chronic Health Condition, by Potential Caregiver's Subgroup

Sample of Potential Caregivers	(1) Worked All Weeks	(2) Worked Some Weeks	(3) Did Not Work Because of Caregiving	(4) Reduced Work Hours Because of Caregiving	(5) Earnings	(6) Working Full Time
All	-0.0261 (0.0180)	-0.00226 (0.0150)	0.00955 (0.00751)	-0.0153* (0.00686)	28.81 (123.9)	-0.0134 (0.0159)
Female	-0.0122 (0.0252)	-0.0119 (0.0236)	0.0230 (0.0167)	-0.0270 (0.0152)	-223.7 (114.4)	0.0154 (0.0252)
Male	-0.0361 (0.0250)	0.00768 (0.0194)	0.000322 (0.00178)	-0.00543 (0.00341)	246.6 (196.8)	-0.0323 (0.0204)
Higher Educ.	-0.0421 (0.0220)	0.000587 (0.0175)	0.00918 (0.00964)	-0.00989 (0.00706)	99.46 (185.2)	-0.00303 (0.0197)
Lower Educ.	-0.00370 (0.0305)	-0.0109 (0.0270)	0.0126 (0.0123)	-0.0240 (0.0139)	-90.95 (115.9)	-0.0307 (0.0264)
Primary Earner	0.00876 (0.0193)	0.0168 (0.0125)	0.000784 (0.00509)	-0.00148 (0.00521)	271.4 (212.3)	-0.00261 (0.0188)
Not Primary Earner	-0.0343 (0.0241)	0.00396 (0.0227)	0.00282 (0.0163)	-0.0124 (0.0114)	-128.6 (101.2)	-0.0371 (0.0259)
FMLA	0.0397 (0.0277)	0.0357 (0.0231)	-0.00390 (0.00849)	-0.0222 (0.0169)	452.6* (228.0)	0.0408 (0.0242)
No FMLA	-0.0641* (0.0263)	-0.0290 (0.0221)	0.0154 (0.0118)	-0.0133 (0.00814)	-162.6 (172.0)	-0.0350 (0.0239)

Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses. Table shows coefficient of interest from estimates of Equation 3 for relevant outcome and subgroup.

Table 4: The Impact of Paid Leave on Spousal Labor Supply Decisions and Earnings After a Work-Limiting Illness, by Subgroup

	(1)	(2)	(3)	(4)
Sample of Spouses	Worked All Weeks	Worked Some Weeks	Earnings	Working Full Time
All	0.0179 (0.0285)	0.0116 (0.0233)	-204.8 (232.7)	0.0331 (0.0261)
Female	-0.00543 (0.0367)	-0.0192 (0.0318)	-140.6 (161.6)	0.0451 (0.0382)
Male	0.0563 (0.0445)	0.0572 (0.0340)	-256.1 (468.2)	0.0119 (0.0330)
Higher Educ.	0.0237 (0.0357)	0.0187 (0.0298)	-268.8 (338.9)	0.0551 (0.0291)
Lower Educ.	0.00905 (0.0454)	0.00362 (0.0355)	-50.82 (181.8)	-0.0251 (0.0557)
Primary Earner	0.0311 (0.0384)	0.0106 (0.0207)	-94.30 (217.1)	0.0528* (0.0265)
Not Primary Earner	0.00465 (0.0331)	0.0210 (0.0285)	-235.1 (297.4)	0.0177 (0.0357)
FMLA	0.0608 (0.0433)	-0.00126 (0.0474)	-328.4 (315.1)	0.0797** (0.0308)
No FMLA	-0.000423 (0.0382)	0.0105 (0.0296)	89.84 (169.5)	-0.0145 (0.0400)

Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses. Table shows coefficient of interest from estimates of Equation 3 for relevant outcome and subgroup.

Table 5: The Impact of Paid Leave on Potential Caregivers' Labor Supply Decisions and Earnings After a Work-Limiting Illness, by Potential Caregiver Subgroup

Sample of Potential Caregivers	(1) Worked All Weeks	(2) Worked Some Weeks	(3) Did Not Work Because of Caregiving	(4) Reduced Work Hours Because of Caregiving	(5) Earnings	(6) Working Full Time
All	-0.0241 (0.0245)	-0.0163 (0.0198)	0.00218 (0.00993)	0.0233* (0.00951)	-93.87 (252.8)	-0.00134 (0.0234)
Female	-0.0276 (0.0386)	-0.0148 (0.0348)	-0.00221 (0.0228)	0.0446* (0.0205)	-58.31 (255.1)	0.00483 (0.0417)
Male	-0.0284 (0.0322)	-0.0178 (0.0238)	0.00448 (0.00339)	0.00388 (0.00552)	-143.0 (401.2)	-0.00701 (0.0270)
Higher Educ.	-0.000108 (0.0295)	0.00874 (0.0252)	0.0129 (0.0118)	0.0267* (0.0121)	27.60 (393.3)	-0.0315 (0.0302)
Lower Educ.	-0.0704 (0.0409)	-0.0748* (0.0304)	-0.0137 (0.0172)	0.0161 (0.0158)	-332.0* (150.0)	0.0531 (0.0356)
Primary Earner	-0.00317 (0.0252)	0.0136 (0.0141)	0.00352 (0.00422)	0.0113 (0.00830)	-138.6 (261.7)	0.00545 (0.0196)
Not Primary Earner	-0.0510 (0.0335)	-0.0684* (0.0294)	0.0161 (0.0198)	0.0291* (0.0147)	-90.79 (350.7)	0.00126 (0.0460)
FMLA	-0.0268 (0.0449)	-0.0206 (0.0333)	0.00569 (0.0133)	0.0114 (0.0114)	115.5 (405.4)	-0.0322 (0.0308)
No FMLA	-0.0132 (0.0328)	-0.0182 (0.0284)	-0.00260 (0.0147)	0.0345* (0.0150)	-148.6 (379.5)	0.0332 (0.0379)

Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses. Table shows coefficient of interest from estimates of Equation 3 for relevant outcome and subgroup.

Appendix Tables and Figures

Table A.1: Spouse's Labor Supply following Spousal Work-Limiting Disability/Chronic Health Condition

Time to Evt.	Worked all Weeks (1)	Worked Some Weeks (2)	Earnings (3)	Working Full Time (4)
7+ Waves Before	0.1363*** (0.0238)	0.0901*** (0.0208)	287.86** (110.09)	0.0358 (0.0230)
6 Waves Before	0.1162*** (0.0199)	0.0803*** (0.0167)	283.82** (89.84)	0.0311 (0.0203)
5 Waves Before	0.0838*** (0.0168)	0.0496*** (0.0148)	231.56** (79.92)	0.0300 (0.0167)
4 Waves Before	0.0665*** (0.0141)	0.0473*** (0.0117)	194.26* (83.49)	0.0210 (0.0144)
3 Waves Before	0.0764*** (0.0115)	0.0437*** (0.0095)	269.64*** (61.25)	0.0260* (0.0121)
2 Waves Before	0.0499*** (0.0091)	0.0205** (0.0074)	119.30* (46.86)	0.0251* (0.0103)
Wave of	-0.1044*** (0.0090)	-0.0393*** (0.0066)	-283.14*** (36.15)	-0.0678*** (0.0102)
1 Wave After	-0.0979*** (0.0110)	-0.0802*** (0.0098)	-387.83*** (49.54)	-0.0719*** (0.0123)
2 Waves After	-0.0816*** (0.0126)	-0.0922*** (0.0119)	-317.23*** (58.26)	-0.0569*** (0.0142)
3 Waves After	-0.0757*** (0.0143)	-0.0966*** (0.0137)	-228.82*** (66.85)	-0.0557*** (0.0159)
4 Waves After	-0.0738*** (0.0169)	-0.0849*** (0.0157)	-228.86** (81.93)	-0.0384* (0.0177)
5 Waves After	-0.0748*** (0.0191)	-0.0853*** (0.0179)	-226.86* (93.52)	-0.0581** (0.0211)
6 Waves After	-0.0854*** (0.0219)	-0.0877*** (0.0204)	-299.93* (117.10)	-0.0540* (0.0229)
7+ Waves After	-0.0870*** (0.0241)	-0.0888*** (0.0224)	-100.70 (127.97)	-0.0294 (0.0261)
Obs.	32487	32487	32487	21240
R-squared	0.5888	0.6701	0.67	0.6070

Source: Author estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses.



Table A.2: Potential Caregiver Labor Supply following Spousal Work-Limiting Disability/Chronic Health Condition

Time to Evt.	Worked all Weeks	Worked Some Weeks	No work for Care	Red. Hrs for Care	Earnings	Working Full Time
	(1)	(2)	(3)	(4)	(5)	(6)
7+ Waves Before	0.0356 (0.0210)	0.0063 (0.0179)	0.0099 (0.0079)	0.0040 (0.0074)	-41.53 (149.67)	0.0196 (0.0167)
6 Waves Before	0.0180 (0.0191)	-0.0074 (0.0155)	0.0220* (0.0086)	0.0055 (0.0059)	-74.06 (116.28)	0.0116 (0.0151)
5 Waves Before	0.0351* (0.0158)	-0.0012 (0.0130)	0.0072 (0.0065)	0.0119* (0.0060)	-27.10 (92.74)	0.0052 (0.0128)
4 Waves Before	-0.0102 (0.0130)	-0.0060 (0.0102)	0.0064 (0.0053)	0.0007 (0.0043)	-33.18 (82.90)	-0.0124 (0.0108)
3 Waves Before	-0.0060 (0.0108)	-0.0092 (0.0082)	0.0021 (0.0047)	0.0083 (0.0047)	-65.61 (62.66)	-0.0050 (0.0092)
2 Waves Before	-0.0104 (0.0092)	-0.0077 (0.0063)	-0.0043 (0.0036)	0.0007 (0.0034)	-72.03 (45.45)	0.0062 (0.0080)
Wave of	-0.0197* (0.0077)	-0.0243*** (0.0053)	0.0016 (0.0031)	0.0026 (0.0036)	84.03 (42.01)	-0.0042 (0.0072)
1 Wave After	-0.0274** (0.0096)	-0.0363*** (0.0072)	0.0082* (0.0040)	-0.0022 (0.0039)	172.51*** (65.35)	-0.0111 (0.0086)
2 Waves After	-0.0382 *** (0.0112)	-0.0438*** (0.0090)	0.0079 (0.0045)	-0.0035 (0.0040)	118.00 (69.18)	-0.0120 (0.0098)
3 Waves After	-0.0445 *** (0.0132)	-0.0505*** (0.0107)	0.0084 (0.0055)	-0.0045 (0.0042)	124.27 (84.52)	-0.0118 (0.0110)
4 Waves After	-0.0677*** (0.0154)	-0.0700*** (0.0131)	0.0111 (0.0064)	-0.0056 (0.0051)	275.71* (110.17)	-0.0184 (0.0130)
5 Waves After	-0.0556** (0.0180)	-0.0666*** (0.0146)	0.0140 (0.0074)	-0.0047 (0.0055)	339.64** (127.33)	-0.0148 (0.0148)
6 Waves After	-0.0473* (0.0205)	-0.0660 *** (0.0168)	0.0111 (0.0080)	-0.0090 (0.0063)	409.17* (169.99)	-0.0051 (0.0171)
7+ Waves After	-0.0625** (0.0222)	-0.0777*** (0.0182)	0.0159 (0.0094)	-0.0134 (0.0073)	345.70* (153.16)	-0.0215 (0.0191)
Obs.	32487	32487	32487	32487	32487	28559
R-squared	0.4903	0.4957	0.4340	0.2966	0.76	0.6091

Source: Author estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses.

Table A.3: Spouse's Labor Supply following Spousal Work-Limiting Illness

Time to Evt.	Worked all Weeks (1)	Worked Some Weeks (2)	Earnings (3)	Working Full Time (4)
7+ Waves Before	0.0445 (0.0291)	0.0084 (0.0242)	14.98 (146.87)	0.0366 (0.0254)
6 Waves Before	0.0420 (0.0246)	0.0012 (0.0197)	38.86 (129.45)	0.0286 (0.0206)
5 Waves Before	0.0303 (0.0217)	0.0114 (0.0170)	-68.22 (104.79)	0.0138 (0.0181)
4 Waves Before	0.0412* (0.0194)	0.0222 (0.0160)	-11.71 (106.42)	0.0070 (0.0167)
3 Waves Before	0.0226 (0.0153)	0.0073 (0.0121)	67.79 (103.26)	-0.0065 (0.0133)
2 Waves Before	0.0253* (0.0128)	0.0020 (0.0081)	-30.65 (53.93)	0.0081 (0.0110)
Wave of	-0.0024 (0.0111)	-0.0132* (0.0061)	-74.99 (43.99)	0.0140 (0.0103)
1 Wave After	-0.0055 (0.0138)	-0.0078 (0.0093)	-28.41 (73.81)	-0.0165 (0.0136)
2 Waves After	-0.0025 (0.0169)	-0.0078 (0.0117)	-25.56 (77.84)	-0.0214 (0.0148)
3 Waves After	0.0072 (0.0190)	-0.0309* (0.0145)	-15.99 (99.26)	-0.0153 (0.0186)
4 Waves After	-0.0097 (0.0226)	-0.0290 (0.0181)	-151.45 (119.23)	-0.0410 (0.0211)
5 Waves After	-0.0196 (0.0268)	-0.0290 (0.0215)	-74.00 (136.27)	-0.0439 (0.0234)
6 Waves After	-0.0106 (0.0304)	-0.0253 (0.0247)	-104.23 (169.06)	-0.0473 (0.0262)
7+ Waves After	-0.0349 (0.0327)	-0.0253 (0.0253)	69.49 (203.21)	-0.0873** (0.0319)
Obs.	16967	16967	16967	12830
R-squared	0.6169	0.7207	0.7316	0.5651

Source: Author estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses.

Table A.4: Potential Caregiver Labor Supply following Spousal Work-Limiting Illness

Wave to Evt.	Worked all Weeks (1)	Worked Some Weeks (2)	No work for Care (3)	Red. Hrs for Care (4)	Earnings (5)	Working Full Time (6)
7+ Waves Before	-0.0310 (0.0300)	-0.0118 (0.0234)	-0.0044 (0.0119)	-0.0111 (0.0121)	-91.11 (180.76)	-0.0021 (0.0248)
6 Waves Before	-0.0187 (0.0280)	-0.0206 (0.0214)	0.0041 (0.0103)	0.0040 (0.0124)	-46.86 (151.93)	0.0028 (0.0223)
5 Waves Before	-0.0542* (0.0226)	-0.0312 (0.0166)	0.0061 (0.0090)	-0.0129 (0.0096)	0.33 (133.07)	0.0175 (0.0171)
4 Waves Before	-0.0220 (0.0186)	-0.0165 (0.0139)	0.0092 (0.0083)	0.0184 (0.0096)	-56.72 (118.73)	0.0079 (0.0162)
3 Waves Before	-0.0328* (0.0160)	-0.0025 (0.0112)	0.0020 (0.0069)	-0.0043 (0.0071)	-23.87 (79.01)	0.0042 (0.0125)
2 Waves Before	-0.0265* (0.0111)	-0.0039 (0.0079)	-0.0020 (0.0050)	0.0016 (0.0059)	-114.39 (74.57)	0.0105 (0.0091)
Wave of	-0.0059 (0.0102)	-0.0189** (0.0066)	0.0051 (0.0034)	0.0074 (0.0064)	40.55 (75.39)	-0.0103 (0.0089)
1 Wave After	-0.0203 (0.0134)	-0.0317** (0.0099)	0.0001 (0.0049)	0.0039 (0.0074)	57.97 (107.96)	-0.0097 (0.0117)
2 Waves After	-0.0134 (0.0160)	-0.0370** (0.0121)	0.0015 (0.0064)	0.0017 (0.0074)	-54.38 (117.33)	-0.0049 (0.0136)
3 Waves After	-0.0390* (0.0192)	-0.0406** (0.0138)	0.0102 (0.0079)	0.0020 (0.0086)	-23.00 (142.89)	-0.0107 (0.0151)
4 Waves After	-0.0380 (0.0226)	-0.0478** (0.0162)	0.0072 (0.0086)	-0.0068 (0.0088)	3.91 (185.37)	-0.0089 (0.0189)
5 Waves After	-0.0323 (0.0257)	-0.0520** (0.0187)	0.0054 (0.0097)	-0.0098 (0.0109)	105.00 (220.17)	0.0067 (0.0201)
6 Waves After	-0.0387 (0.0280)	-0.0738*** (0.0222)	0.0147 (0.0107)	-0.0066 (0.0117)	87.18 (224.31)	0.0101 (0.0219)
7+ Waves After	-0.0395 (0.0301)	-0.0818*** (0.0240)	0.0156 (0.0131)	-0.0145 (0.0136)	15.94 (252.44)	0.0129 (0.0259)
Obs.	16968	16968	16968	16968	16968	15174
R-squared	0.4931	0.5008	0.4249	0.3133	0.8062	0.6289

Source: Author estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses.

Table A.5: Spouse's Labor Supply following Any Spousal Disability

Time to Evt.	Worked all Weeks (1)	Worked Some Weeks (2)	Earnings (3)	Working Full Time (4)
7+ Waves Before	0.0893 (0.0837)	0.1377* (0.0672)	649.83* (295.89)	0.0389 (0.0901)
6 Waves Before	0.0711 (0.0709)	0.1218* (0.0566)	426.74 (248.28)	0.0557 (0.0753)
5 Waves Before	0.0688 (0.0702)	0.1056 (0.0552)	384.17 (247.71)	0.0409 (0.0773)
4 Waves Before	0.0436 (0.0421)	0.0880* (0.0370)	385.67* (150.86)	0.0459 (0.0501)
3 Waves Before	0.0490 (0.0447)	0.0946** (0.0360)	304.09* (139.78)	0.0343 (0.0508)
2 Waves Before	0.0203 (0.0423)	0.0669* (0.0327)	271.53 (138.95)	0.0188 (0.0464)
Wave of	-0.0190 (0.0190)	-0.0226 (0.0135)	-57.55 (83.74)	0.0127 (0.0263)
1 Wave After	-0.0408 (0.0221)	-0.0200 (0.0145)	-33.95 (83.38)	0.0149 (0.0279)
2 Waves After	-0.0635 (0.0394)	-0.0793* (0.0343)	-237.57 (183.32)	0.0554 (0.0502)
3 Waves After	-0.0567 (0.0392)	-0.0639 (0.0353)	-235.85 (192.56)	0.0135 (0.0493)
4 Waves After	-0.0630 (0.0414)	-0.0979** (0.0367)	-298.38 (197.18)	0.0415 (0.0499)
5 Waves After	-0.0642 (0.0653)	-0.0804 (0.0561)	-322.21 (291.13)	0.0856 (0.0796)
6 Waves After	-0.0573 (0.0665)	-0.0963 (0.0585)	-474.20 (320.25)	0.0959 (0.0797)
7+ Waves After	-0.0901 (0.0835)	-0.1057 (0.0703)	-356.92 (349.22)	0.0521 (0.0982)
Obs.	5493	5493	5493	3493
R-squared	0.6472	0.7252	0.8790	0.5846

Source: Author estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses.

Table A.6: Potential Caregiver Labor Supply following Any Spousal Disability

Wave to Evt.	Worked all Weeks (1)	Worked Some Weeks (2)	No work for Care (3)	Red. Hrs for Care (4)	Earnings (5)	Working Full Time (6)
7+ Waves Before	-0.0350 (0.0744)	-0.0086 (0.0747)	-0.0274 (0.0341)	-0.0114 (0.0287)	261.17 (378.67)	-0.0074 (0.0703)
6 Waves Before	-0.0416 (0.0622)	-0.0146 (0.0642)	-0.0180 (0.0284)	0.0072 (0.0281)	138.31 (367.37)	-0.0080 (0.0619)
5 Waves Before	-0.0245 (0.0615)	-0.0185 (0.0630)	-0.0253 (0.0299)	-0.0154 (0.0221)	39.89 (332.81)	-0.0104 (0.0602)
4 Waves Before	-0.0017 (0.0386)	-0.0011 (0.0393)	-0.0134 (0.0167)	-0.0007 (0.0157)	88.49 (244.07)	0.0143 (0.0412)
3 Waves Before	-0.0330 (0.0402)	-0.0364 (0.0389)	-0.0016 (0.0178)	-0.0015 (0.0167)	-84.07 (229.05)	0.0211 (0.0380)
2 Waves Before	-0.0442 (0.0381)	-0.0474 (0.0393)	-0.0047 (0.0200)	-0.0075 (0.0154)	-140.67 (240.17)	0.0187 (0.0368)
Wave of	0.0046 (0.0208)	-0.0025 (0.0138)	-0.0045 (0.0095)	-0.0011 (0.0059)	-156.70 (118.65)	0.0276 (0.0200)
1 Wave After	0.0174 (0.0237)	-0.0044 (0.0178)	-0.0079 (0.0105)	-0.0027 (0.0089)	-182.14 (132.27)	0.0153 (0.0204)
2 Waves After	0.0446 (0.0419)	0.0352 (0.0357)	-0.0028 (0.0184)	-0.0124 (0.0144)	-116.15 (243.40)	0.0795* (0.0393)
3 Waves After	0.0338 (0.0442)	0.0331 (0.0360)	0.0010 (0.0205)	-0.0046 (0.0161)	-174.34 (233.40)	0.0716 (0.0405)
4 Waves After	0.0153 (0.0437)	-0.0068 (0.0395)	0.0083 (0.0215)	0.0057 (0.0158)	-213.92 (235.94)	0.0124 (0.0431)
5 Waves After	0.0782 (0.0700)	0.0450 (0.0632)	-0.0019 (0.0369)	-0.0090 (0.0285)	-183.11 (375.74)	0.0974 (0.0662)
6 Waves After	0.0849 (0.0750)	0.0638 (0.0627)	0.0092 (0.0418)	-0.0123 (0.0261)	-111.05 (391.38)	0.0765 (0.0666)
7+ Waves After	0.0925 (0.0895)	0.0658 (0.0711)	-0.0048 (0.0389)	-0.0043 (0.0331)	-143.86 (455.72)	0.1216 (0.0778)
Obs.	5493	5493	5493	5493	5493	4617
R-squared	0.4851	0.4898	0.3409	0.1636	0.8068	0.6113

Source: Author estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses.

Table A.7: The Impact of Paid Leave on Spousal Labor Supply Decisions and Earnings After Any Disability, by Potential Caregiver Subgroup

	(1)	(2)	(3)	(4)
Sample of Spouses	Worked All Weeks	Worked Some Weeks	Earnings	Working Full Time
All	0.0215 (0.0379)	-0.0103 (0.0296)	283.5 (177.3)	0.0616 (0.0468)
Female	0.0599 (0.0539)	0.0420 (0.0387)	291.8* (147.7)	0.0937 (0.0742)
Male	-0.0207 (0.0528)	-0.0706 (0.0450)	232.5 (325.9)	0.0164 (0.0536)
Higher Educ.	-0.0249 (0.0478)	-0.0112 (0.0361)	372.8 (255.4)	0.0582 (0.0467)
Lower Educ.	0.0574 (0.0545)	-0.0214 (0.0473)	48.20 (154.5)	0.0684 (0.108)
Primary Earner	0.0698 (0.0679)	0.0155 (0.0339)	435.7 (355.8)	-0.0208 (0.0601)
Not Primary Earner	-0.0292 (0.0424)	-0.0359 (0.0343)	-52.15 (170.3)	0.0750 (0.0621)
FMLA	-0.0707 (0.0783)	-0.0548 (0.0552)	431.3 (536.7)	0.0166 (0.0590)
No FMLA	0.0960* (0.0436)	0.0264 (0.0353)	247.5 (132.3)	0.0884 (0.0797)

Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses. Table shows coefficient of interest from estimates of Equation 3 for relevant outcome and subgroup.

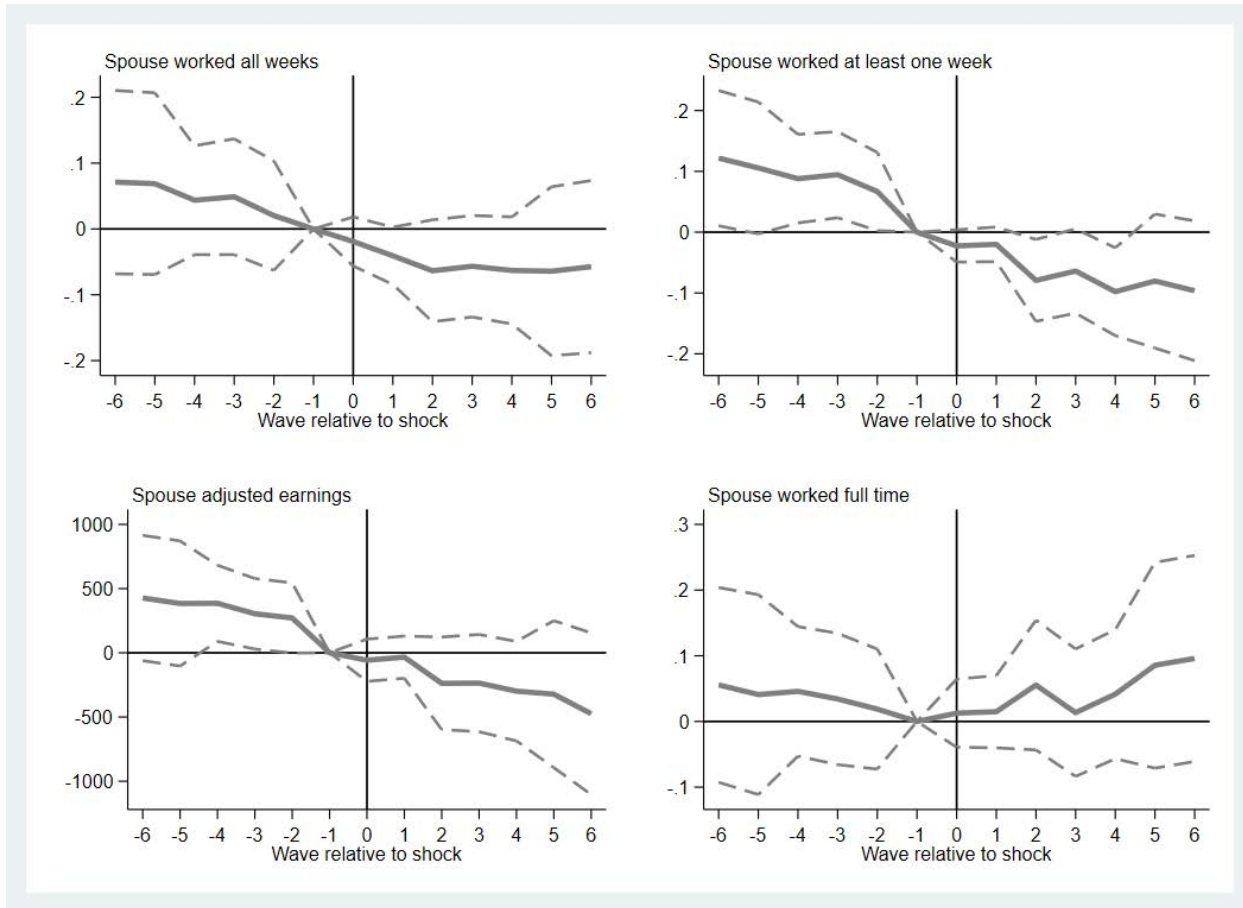
Table A.8: The Impact of Paid Leave on Potential Caregivers' Labor Supply Decisions and Earnings After Any Disability, by Subgroup

	(1)	(2)	(3)	(4)	(5)	(6)
Sample of Potential Caregivers	Worked All Weeks	Worked Some Weeks	Did Not Work Because of Caregiving	Reduced Work Hours Because of Caregiving	Earnings	Working Full Time
All	0.00230 (0.0410)	-0.0193 (0.0322)	0.0193 (0.0186)	0.0101 (0.0131)	-179.8 (300.7)	-0.0230 (0.0340)
Female	-0.0149 (0.0591)	-0.0227 (0.0516)	0.0500 (0.0356)	0.0260 (0.0257)	-248.9 (326.2)	-0.0755 (0.0489)
Male	0.0195 (0.0574)	-0.0154 (0.0388)	-0.00954 (0.0109)	-0.00559 (0.00677)	-91.03 (488.5)	0.0311 (0.0460)
Higher Educ.	0.0208 (0.0508)	0.00830 (0.0320)	-0.00762 (0.0173)	0.0164 (0.0140)	-9.092 (397.2)	-0.0606 (0.0396)
Lower Educ.	-0.0606 (0.0700)	-0.0851 (0.0744)	0.0566 (0.0367)	0.00826 (0.0268)	-659.6 (401.0)	0.0401 (0.0590)
Primary Earner	0.0274 (0.0446)	-0.0216 (0.0170)	0.00492 (0.00619)	0.00393 (0.00806)	-114.7 (463.7)	0.0143 (0.0322)
Not Primary Earner	-0.0148 (0.0544)	-0.0162 (0.0499)	-0.0111 (0.0405)	0.0201 (0.0187)	3.375 (206.9)	-0.0414 (0.0704)
FMLA	0.0292 (0.0543)	-0.0288 (0.0320)	-0.00828 (0.00740)	-0.00643 (0.0232)	-1026.4 (648.7)	0.0190 (0.0366)
No FMLA	-0.00424 (0.0611)	-0.0308 (0.0536)	0.0317 (0.0296)	0.0247 (0.0197)	235.5 (396.9)	-0.0332 (0.0561)

Source: Authors' estimates from the Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: \*, \*\*, \*\*\* indicates 10%, 5% and 1% significance respectively. Standard errors clustered at state level in parentheses. Table shows coefficient of interest from estimates of Equation 3 for relevant outcome and subgroup.

Figure A.1: Mean Adjusted Outcomes for Labor Supply Decisions and Earnings of Spouse Before and After Any Spouse Disability

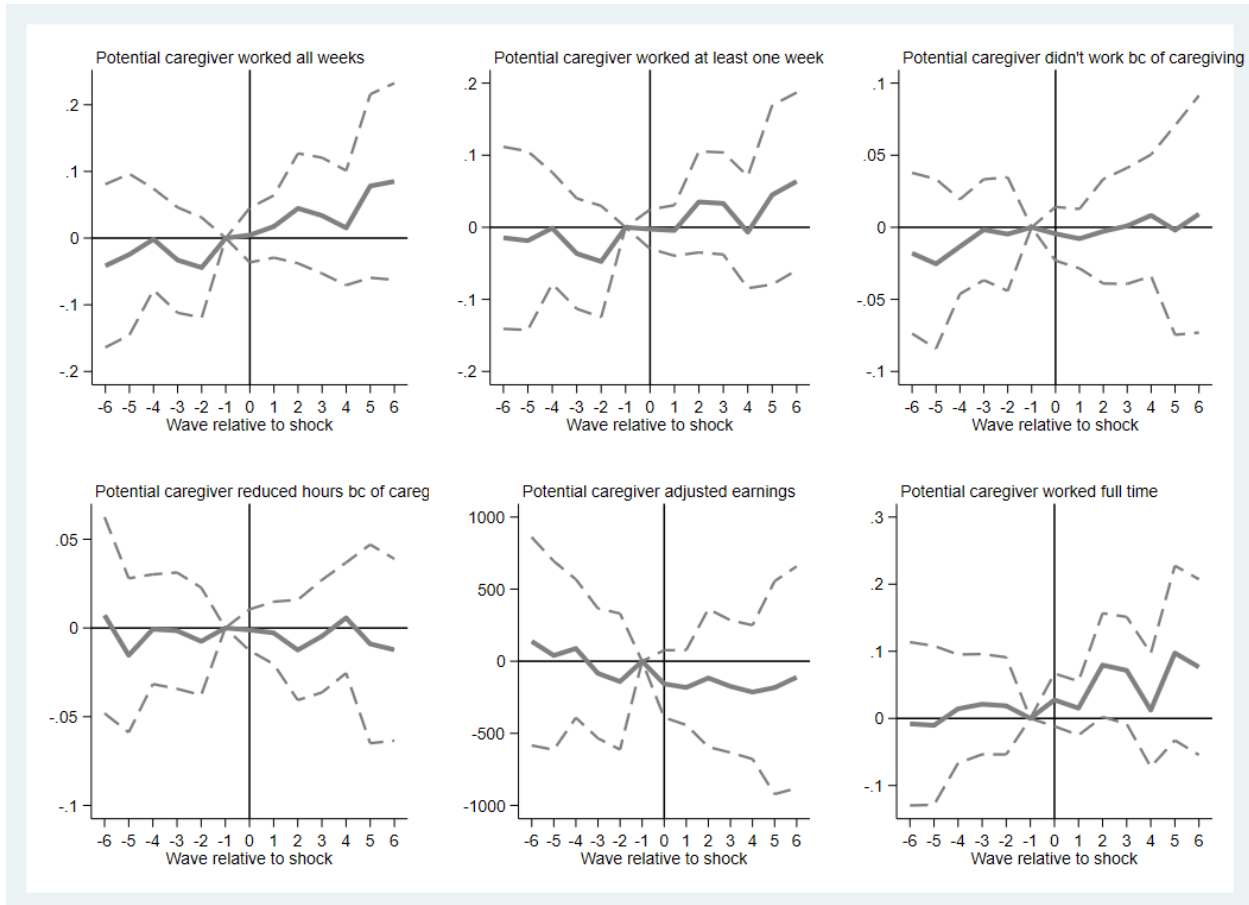


Source: Authors' estimates from Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 1 in text).



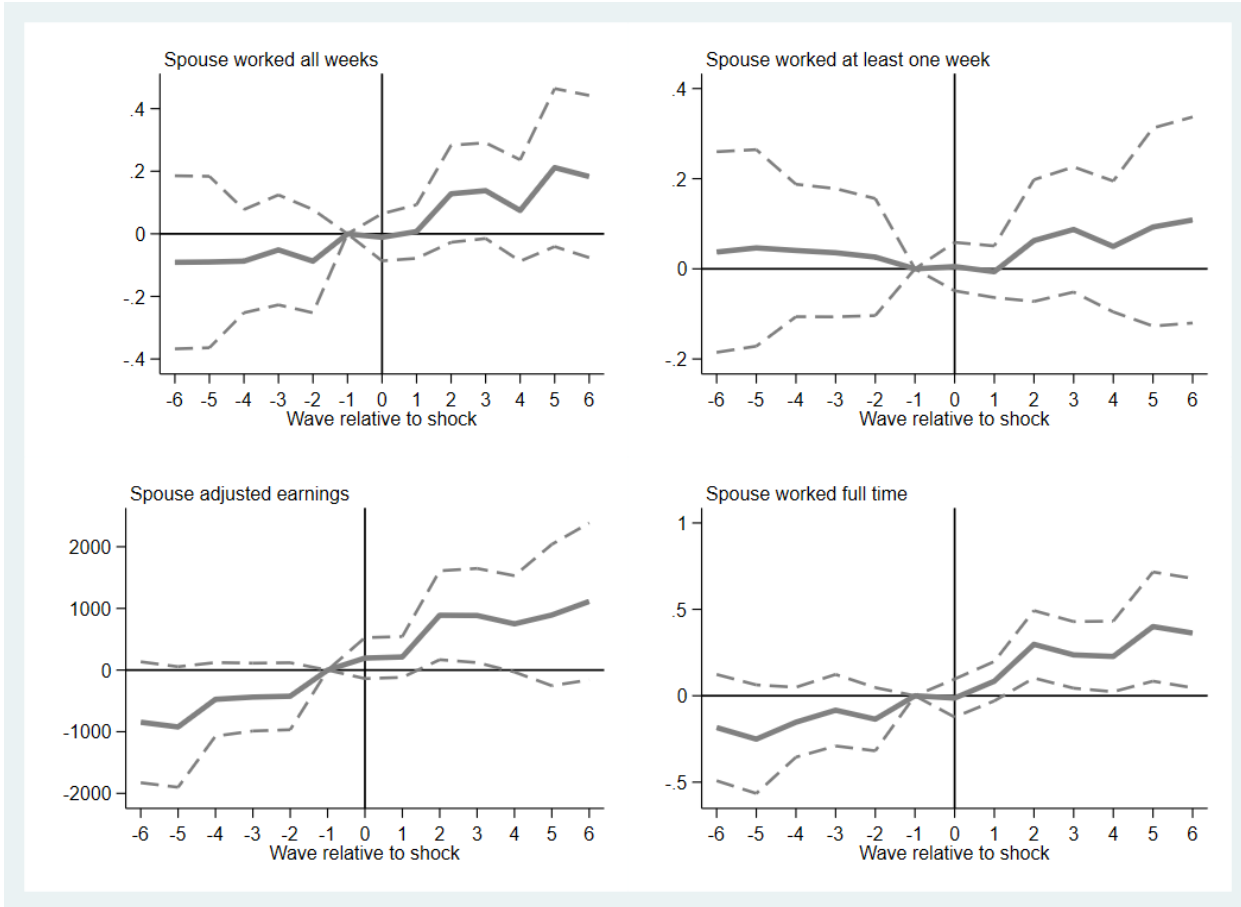
Figure A.2: Mean Adjusted Outcomes for Labor Supply Decisions and Earnings of Potential Caregiver Before and After Any Spouse Disability



Source: Authors' estimates from Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported spousal health shock onset between period -1 and 0, with period -1 omitted (Equation 1 in text).

Figure A.3: Impact of Paid Leave on Spousal Labor Supply Decision and Earnings Before and After Spousal Any Disability



Source: Authors' estimates from Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 2 in text).

Figure A.4: Impact of Paid Leave on Potential Caregiver Labor Supply Decision and Earnings Before and After Spousal Any Disability



Source: Authors' estimates from Survey of Income and Program Participation, 1996, 2001, 2004, and 2008 panels.

Notes: Figure shows point estimates (solid lines) and 95 percent confidence intervals (dashed lines) from event study of reported health shock onset between period -1 and 0, with period -1 omitted (Equation 2 in text).