Appendix for Caring to Work or Working to Care: The Intra-Family Dynamics of Health Shocks

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April 2021

Contents

1 Model Setup

We exposit a purposefully simple, stylized model in order to formalize the idea that there are two forces at play, the income effect and the caregiving effect, which induce opposite signed effects on family labor supply. In this simple setup, we look at the intensive margin choices of hours to work, setting variables such as wages to be constant and exogenous. Note that in our empirical results, we explore a wide variety of labor market outcomes, including the extensive margin and wage changes. Given that the goal of the model is to just highlight the two different effects, this model abstracts from the wider array of choices people make and the complicated ways in which a medical shock might manifest itself in a family.

We start with a static model of individual labor supply decisions. This individual is the family member who himself does not receive a health shock, but is affected by the consequences of the health shock. In the simplest possible framework, we focus just on this family member, and assume that she cares only about her own consumption and hours worked. There is a continuum of states of the world, indexed by s, where larger values of s signifies a worse state of the world. The individual does not anticipate the state of the world. She simply wakes up and a state is realized. The individual faces the following maximization problem:

$$\max_{c,l} \quad U(c,l) = u(c) - \beta(s)v(l) \qquad s.t. \quad c + I(s) = wl \tag{1}$$

where $u(c)$ is the concave utility from consumption ($u'(c) > 0$, $u''(c) < 0$) and $v(l)$ is the convex disutility from labor ($v'(l) > 0$, $v''(l) > 0$). We model a health shock to a family member as affecting this individual through two channels; $I(s)$, the unearned income where $\frac{\partial I(s)}{\partial s} > 0$, and $\beta(s)$, the degree of disutility from work where $\frac{\partial \beta(s)}{\partial s} > 0$. $I(s)$ is intended to capture a state dependent income, such as out-of-pocket medical spending or the income produced by other members in the family. When there are worse states of the world, the individual perceives higher medical costs or lower income brought in by other family members. On the other hand, $\beta(s)$ changes the dis-utility from working, which is also state dependent. As s increases, and the state of the world gets worse, β also increases, signifying that each additional hour of work is more costly in a worse state of the world. From this setup, $I(s)$ will govern the income effect channel, while $\beta(s)$ will capture the caregiving channel. Note that there are numerous ways to model caregiving; Crespo and Mira (2014) and Johnson and Sasso (2000) have utility maximization problems where the well-being of the family member enters into the value function, and time spent caregiving (not working) positively affects the relative's well-being. For the purposes of this model, such a setup will complicate the framework, without generating additional insights. Therefore, we favor this 'reduced form' way of capturing caregiving through adjusting β.

This section proceeds as follows. We will first assume that there is no caregiving effect ($\beta(s) = 1 \quad \forall s$) to show unambiguously that labor in the equilibrium will increase as a function of s. Next, we will instead assume that there is no income effect ($I(s) = 0 \ \forall s$), and show that optimal labor will decrease as s increases. Finally, we put both pieces together to demonstrate that the sign of optimal labor as a function of s is ambiguous.

1.1 Case 1: Pure Income Effect

Let $\beta(s) = 1 \ \ \forall s$, and $l^*(I(s), w)$ denote the optimal hours of work chosen for each combination of levels of $I(s)$ and w. We show that $\frac{\partial l^*(I(s),w)}{\partial s} > 0$.

The first order conditions produce

$$u'(c) = \frac{v'(l)}{w}$$

Plug in the budget constraint and take the derivative of both sides with respect to s:

$$wu''(wl^* - I(s)) \left[w \frac{\partial l^*}{\partial I(s)} \frac{\partial I(s)}{\partial s} - \frac{\partial I(s)}{\partial s} \right] = v''(l^*) \frac{\partial l*}{\partial I(s)} \frac{\partial I(s)}{\partial s}$$

$$\frac{\partial l^*(I(s), w)}{\partial s} = \frac{\partial l^*}{\partial I(s)} \frac{\partial I(s)}{\partial s} = \frac{\frac{\partial I(s)}{\partial s} wu''(wl^* - I(s)}{w^2 u''(wl^* - I(s)) - v''(l^*)} > 0$$

Given the concavity of $u(\cdot)$ and $\frac{\partial I(s)}{\partial (s)} > 0$, the numerator is negative, while the denominator is negative. Therefore, as the state increases, or the health shock is worse, the individual unambiguously works more in equilibrium through the income effect. The income effect is larger when worse health states induces larger income losses.

1.2 Case 2: Pure Caregiving Effect

Let $I(s) = 0 \ \ \forall s$. We show that $\frac{\partial l*(\beta(s),w)}{\partial s} < 0$.

The first order conditions now become

$$u'(c) = \frac{\beta(s) v'(l)}{w}$$

Plugging in the budget constraint and taking the derivative of both sides with respect to s produces a similar equation as above except for the numerator:

$$wu''(wl^*) \frac{\partial l^*}{\partial \beta(s)} \frac{\partial \beta(s)}{\partial s} = \beta(s) v''(l^*) \frac{\partial l^*}{\partial \beta(s)} \frac{\partial \beta(s)}{\partial s} + v'(l^*) \frac{\partial \beta}{\partial s}$$

$$\frac{\partial l^*(\beta(s), w)}{\partial s} = \frac{\partial l^*}{\partial \beta(s)} \frac{\partial \beta(s)}{\partial s} = \frac{v'(l^*) \frac{\partial \beta(s)}{\partial s}}{w^2 u''(wl^*) - \beta(s) v''(l^*)} < 0$$

The magnitude of caregiving is governed by the magnitude that an additional worse state imposes on the disutility of work for the individual. Unambiguously, health shocks (worse states) induce the individual to work less.

1.3 Case 3: The Income and Caregiving Effects

It should be clear that the intuition from above carries through when the health shock produces both income losses and the desire to take care of the injured individual. For completion, we show $\frac{\partial l^*(I(s),\beta(s),w)}{\partial s}$ which is the sum of income and caregiving effects demonstrated

in Cases 1 and 2, derived following the same steps as above.

$$\frac{\partial l^*(I(s),\beta(s),w)}{\partial s} = \frac{\partial l^*}{\partial I(s)}\frac{\partial I(s)}{\partial s} + \frac{\partial l^*}{\partial \beta(s)}\frac{\partial \beta(s)}{\partial s} = \frac{v'(l^*)\frac{\partial \beta(s)}{\partial s} - wu''(wl^* - I)\frac{\partial I(s)}{\partial s}}{w^2u''(wl^* - I(s)) - \beta(s)v''(l^*)}$$

The denominator is negative. The first term in the numerator is the caregiving effect, which is positive, while the second term is the income effect, which is negative. Therefore, the overall sign is ambiguous and depends on which effect is larger. For example, if a health shock happens to a child and produces little out-of-pocket spending, then it is likely that the caregiving effect dominates and the individual works less.

2 Medical Expenditure Panel Survey

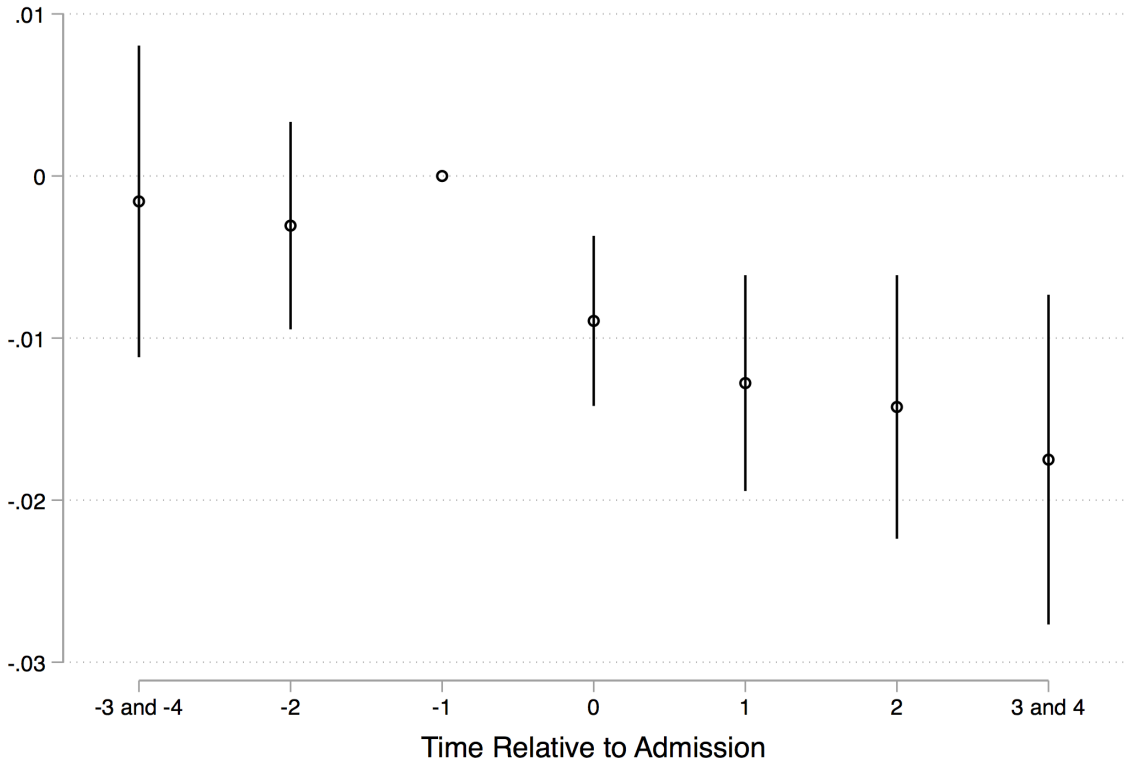
In this section, we note some characteristics of the MEPS data set. MEPS is a unique dataset available for the United States that allows us to link individuals into households and follow them for a 2-year panel, with both labor market information and rich records of medical events. It allows us to focus on the few months after the shock, where the family might feel the effects most acutely. On average, panels in MEPS have an attrition rate of 7.8%, which is the fraction of individuals who responded to the first round of the panel and were "in-scope" (part of the civilian non-institutionalized population that is the focus of this survey) and subsequently had missing rounds of data. This attrition includes households who became unresponsive or out-of-scope for the survey (e.g. died or institutionalized).

2.1 Measuring Labor Supply

MEPS provides detailed information on wage income from the individual's main job, and a variety of job characteristics, such as employment status, hours worked per week, hourly wage, and an indicator for working more than one job. We note that we do not observe earnings for self employment, and importantly, income that comes from government transfers and welfare programs.As a consequence, the results shed light only on wage income from the main job, and not on other sources of income. Our results are complementary to studies that focus on the effects of family events on government transfers (Stepner, 2019), as our data allows us to thoroughly examine wage income. Furthermore, we document evidence of intra-family insurance, despite possible take-up of government transfer. This allows us to interpret our results as a lower bound on what intra-family insurance could be in the absence of government programs and transfers.

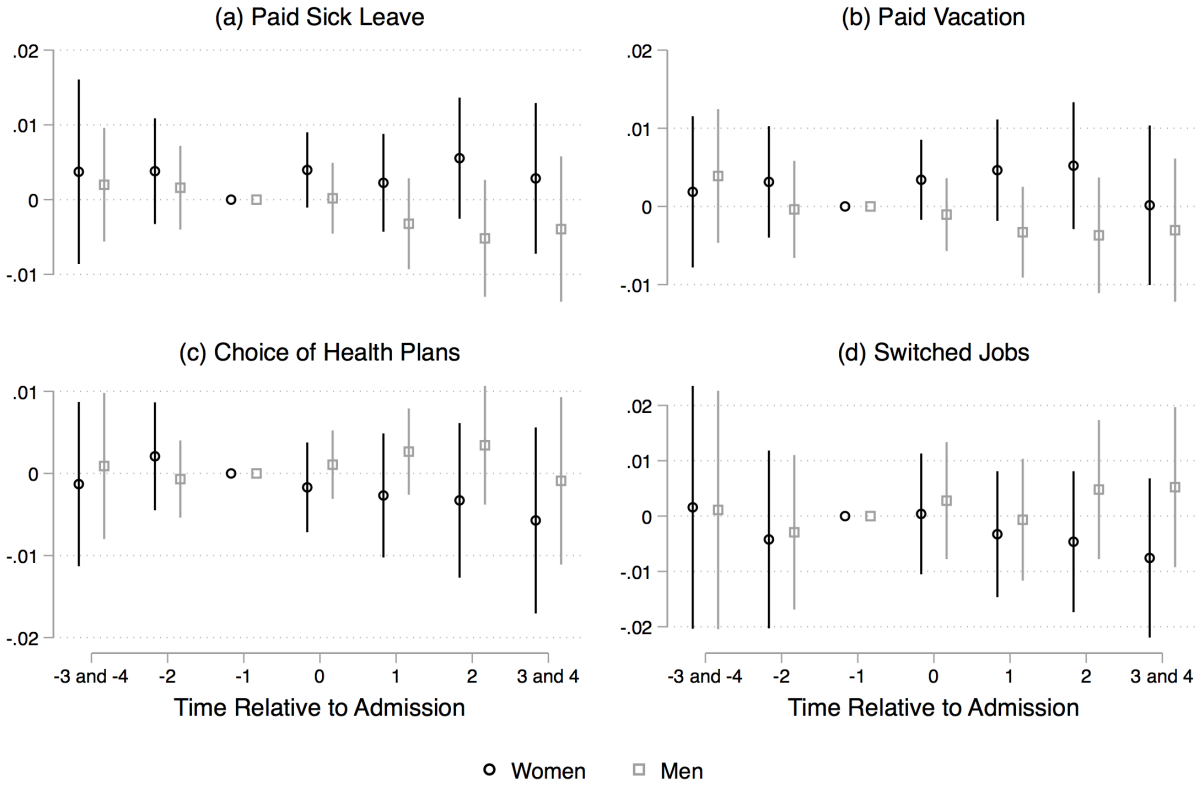
3 Appendix Figures

Figure A.1: Effect of Emergency Department Event on Likelihood of Working More than 1 Job for Individual Who Suffered Event



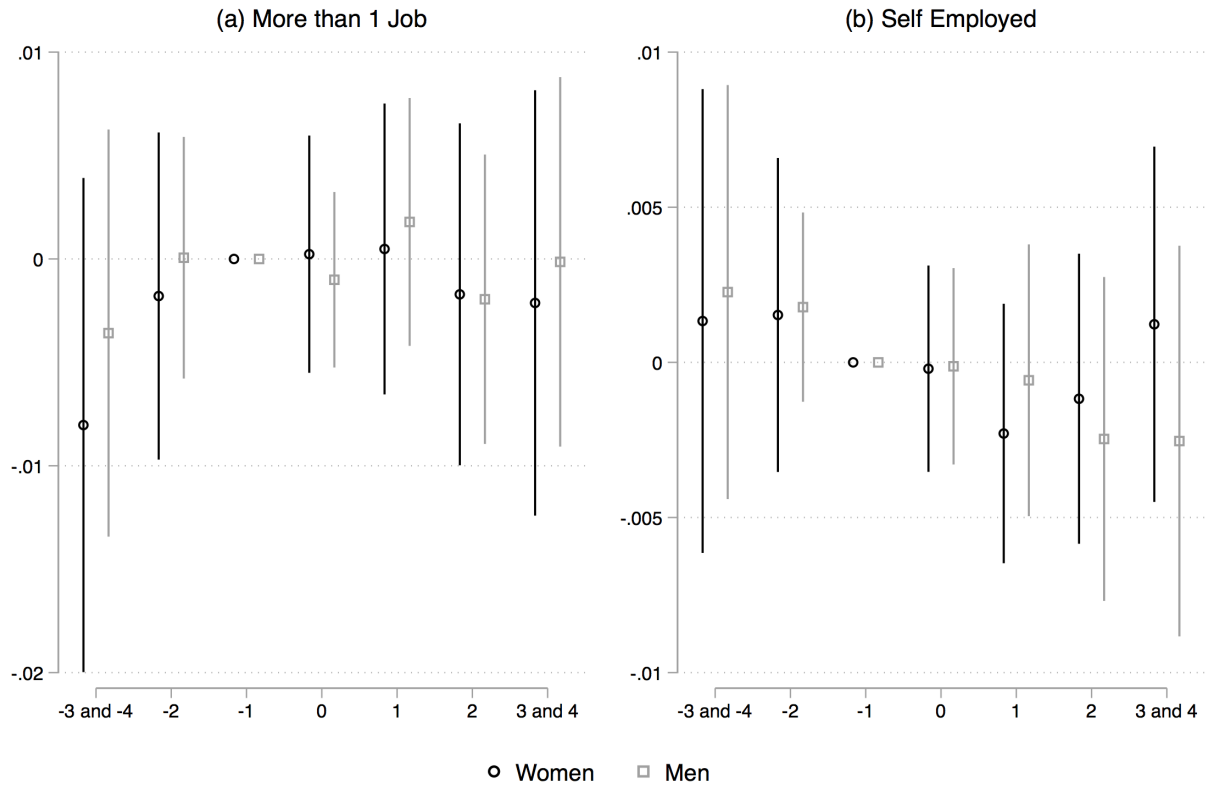
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes pregnancy-related ED events and those in single member families. Outcome variable is an indicator for working more than one job. Robust standard errors are clustered at the individual level.

Figure A.2: Effect of Emergency Department Event on Family Members' Employment Benefits and Probability of Switching Jobs



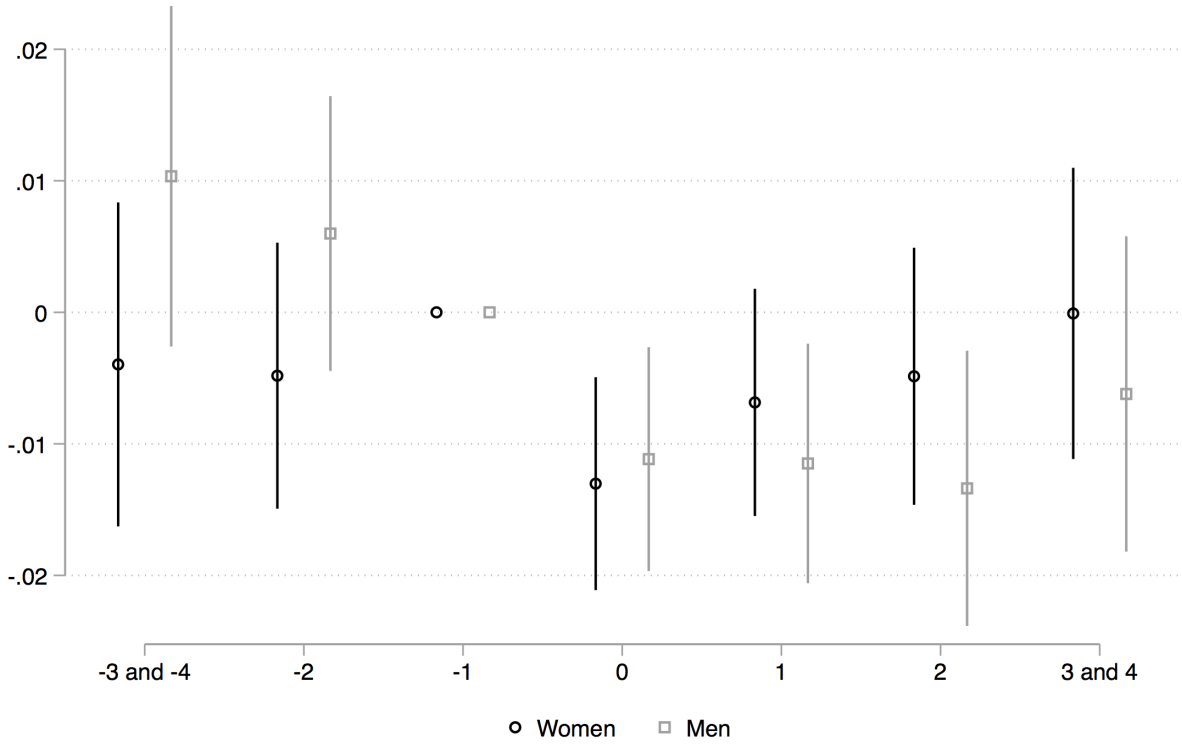
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes pregnancy-related ED events. *Paid Sick Leave* is an indicator for the employer offers paid sick leave, *Paid Vacation* is an indicator for offering paid vacation days, and *Choice of Health Plans* refers to whether a choice of health plans is offered. These variables were not asked of the self employed, and are conditional on being employed. *Switched Jobs* is an indicator for the individual switching her current main job. Robust standard errors are clustered at the family level.

Figure A.3: Effect of Emergency Department Event on Family Members' Alternative Labor Supply Measures



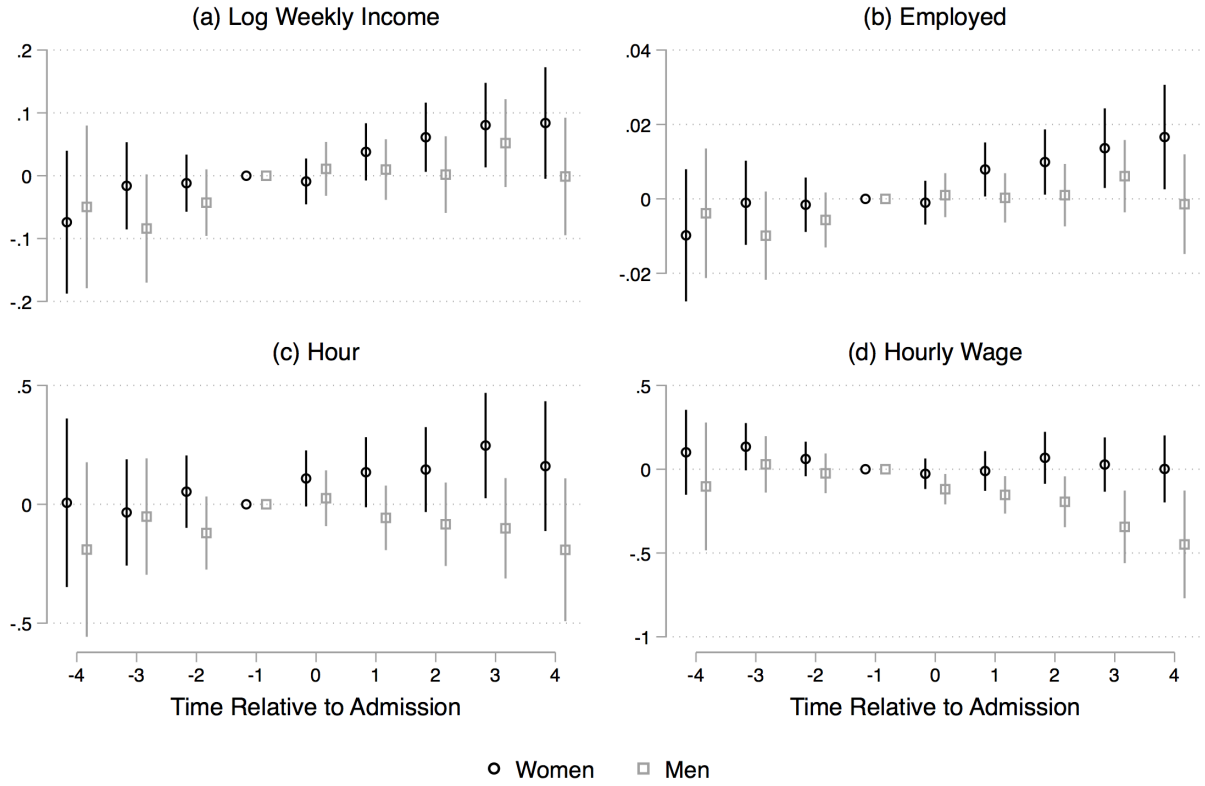
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes pregnancy-related ED events. Outcome variables are indicators for having more than 1 job and for being self-employed as a main job. Estimates show no statistical significant effect for either gender. Robust standard errors are clustered at the family level.

Figure A.4: Effect of Emergency Department Event on Family Members' Mental Health Status



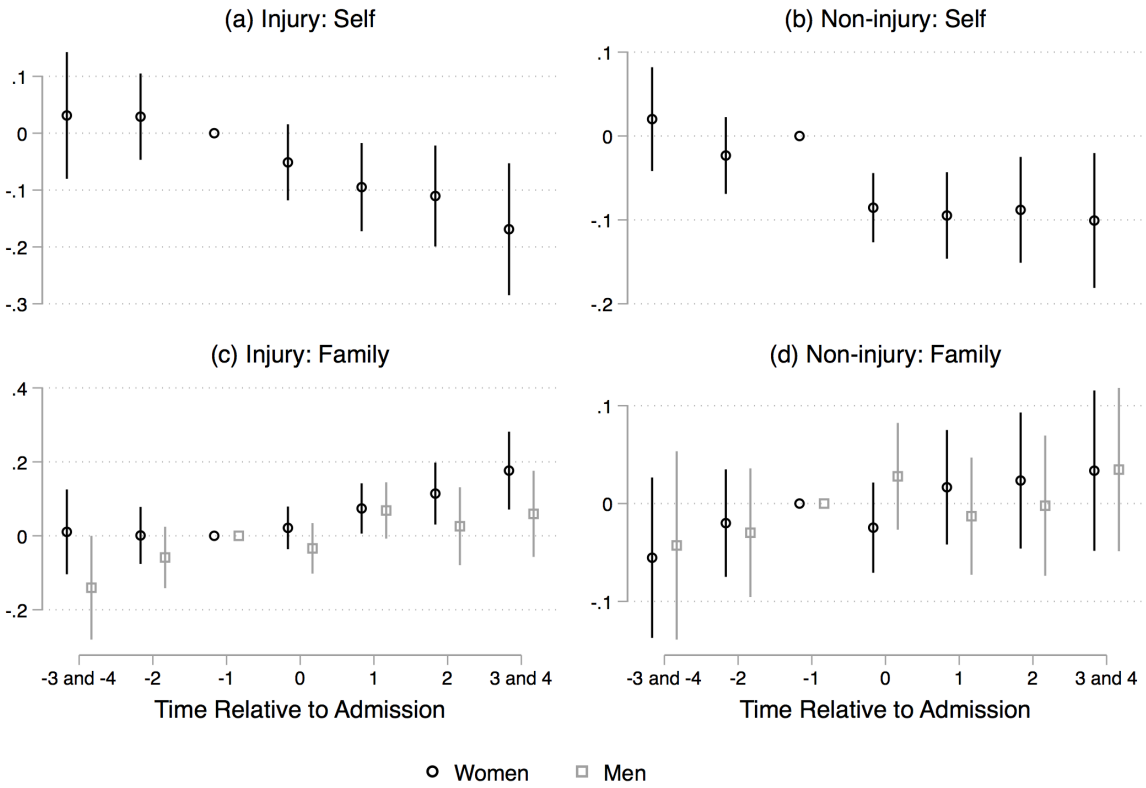
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes pregnancy-related ED events. The outcome variable is an indicator for having "Great Mental Health" or better. This is derived from a variable that identifies the individual's mental health status on a scale from 1 through 5 (5 point Likert Scale), where *Great Mental Health* is scale value 1 (Excellent) or 2 (Great). The regressions suggest a 0.5% decrease for women and a 1.4% for men. Robust standard errors are clustered at the family level.

Figure A.5: Effect of Emergency Department Event on Family Members' Labor Supply



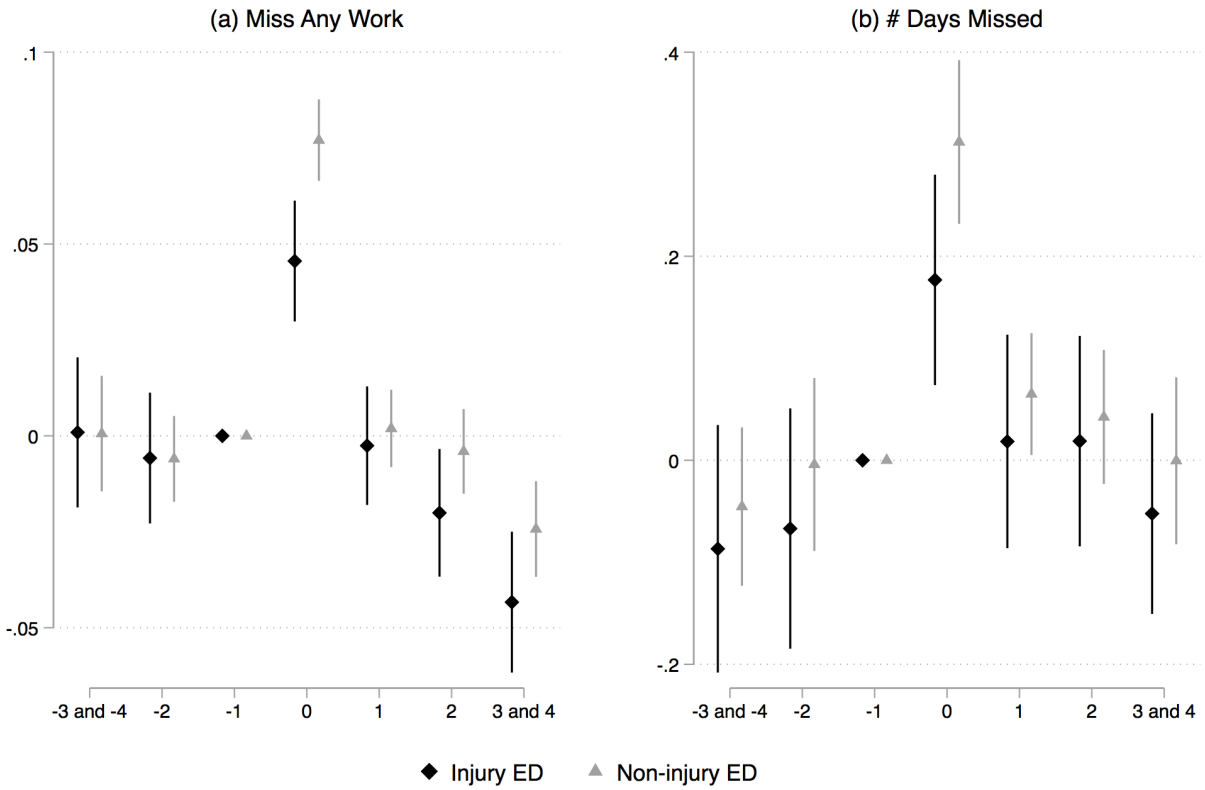
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. This version differs from the figure in the text only by not pooling the -4/-3 and +3/+4 time periods together. Excludes pregnancy-related ED events. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hour* is weekly hours conditional on being employed, and *Hourly Wage* is hourly wage in dollars conditional on being employed. Robust standard errors are clustered at the family level.

Figure A.6: Effect of Injury/Non-Injury-Related Emergency Department Event on Labor Market Outcomes



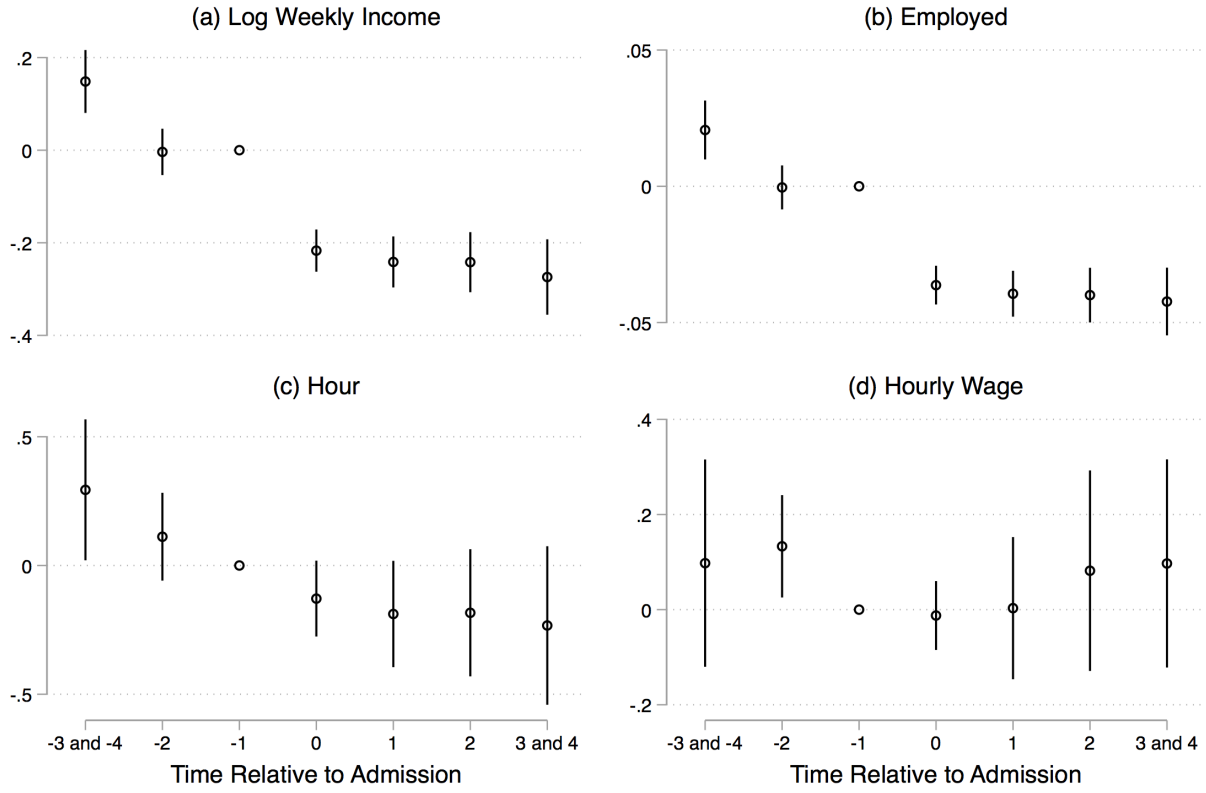
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes pregnancy-related ED events and individuals in single member families. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero. Robust standard errors clustered at the individual level for self effect and clustered at the family level for family effects.

Figure A.7: Effect of Injury-Related Emergency Department Event on Caregiving Outcomes, by Gender of the Family Member



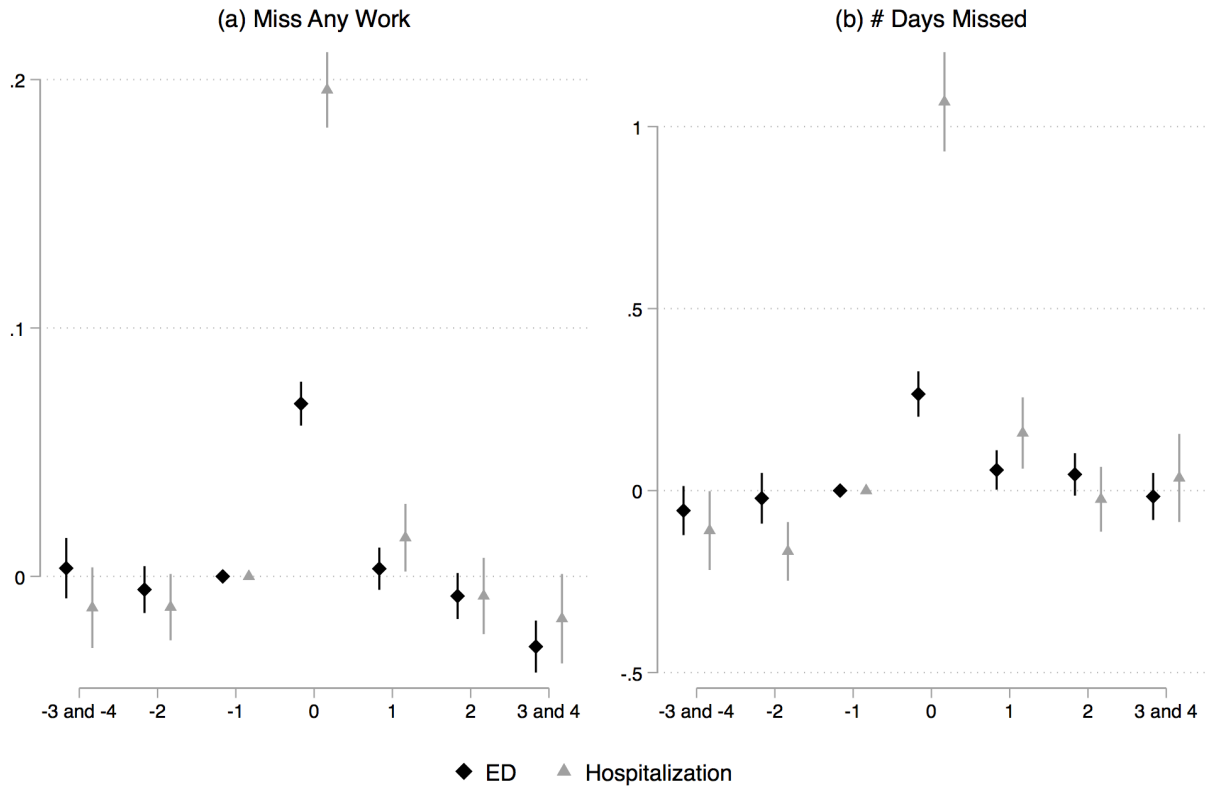
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes pregnancy-related ED events. *Miss Any Days* refers to a binary variable of having missed at least a half day of work for caring for family members. *# Days Missed* refers to number of at least half days missed for caring for family members. Both are conditional on being employed. Robust standard errors are clustered at the family level.

Figure A.8: Effect of Hospitalization on Labor Supply of Ill Individual



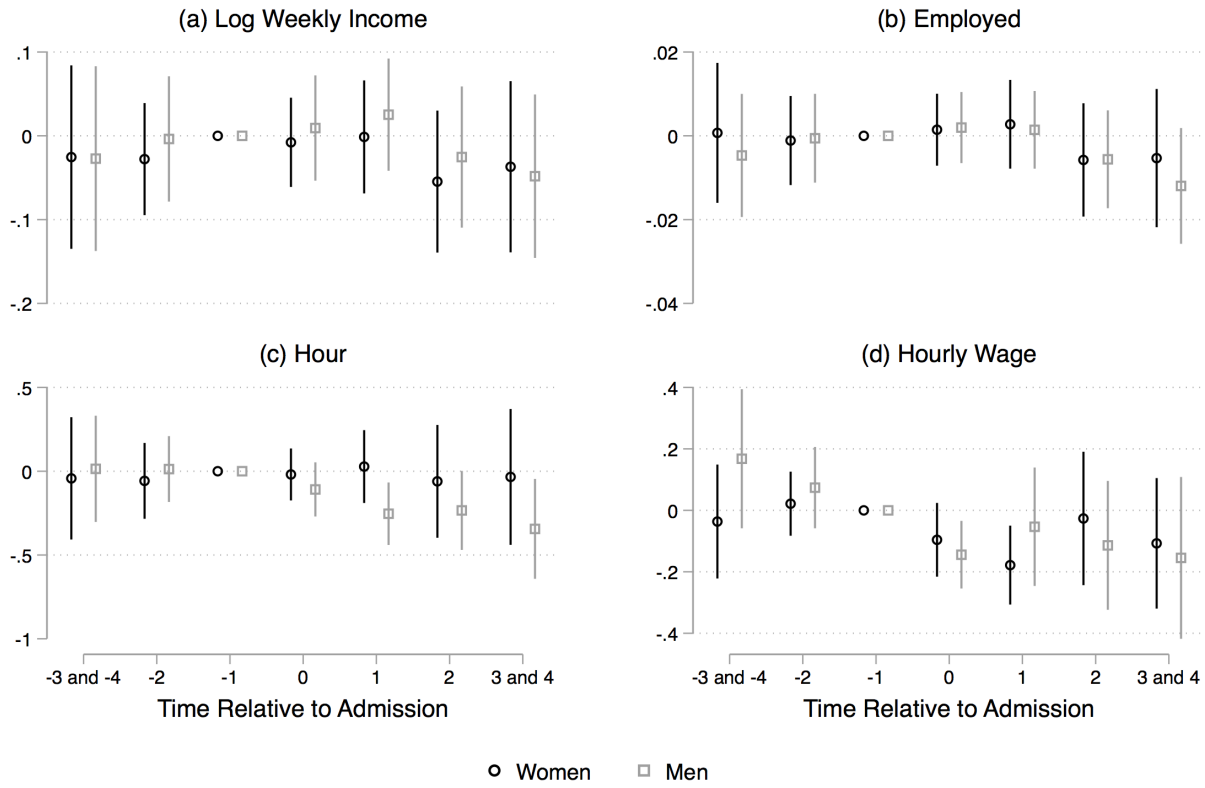
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes events that are pregnancy-related and individuals in single member families. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *hour* is weekly hours conditional on being employed, and *Hourly Wage* is hourly wage in dollars conditional on being employed. Robust standard errors are clustered at the individual level.

Figure A.9: Effect of Emergency Department Event and Hospitalizations on the Family Members' Missing Work for Caregiving



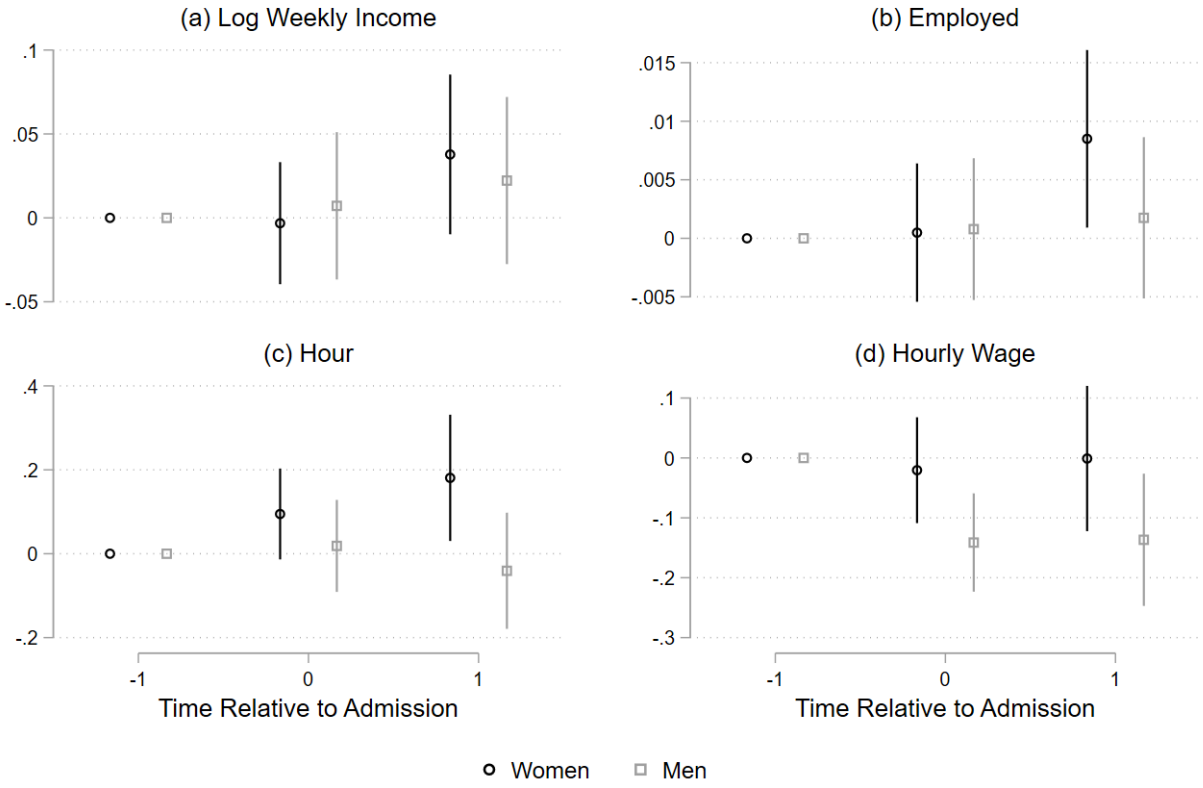
Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes ED events and hospitalizations that are pregnancy-related. *Miss Any Days* refers to a binary variable of having missed at least a half day of work for caring for family members. *# of Days Missed* refers to number of at least half days missed for caring for family members. Both are conditional on being employed. Robust standard errors are clustered at the family level.

Figure A.10: Effect of Hospitalization on Labor Supply of Family Member



Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes events that are pregnancy-related. *Log Weekly Income*, or $\log(1+income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *hour* is weekly hours conditional on being employed, and *Hourly Wage* is hourly wage in dollars conditional on being employed. Robust standard errors are clustered at the family level.

Figure A.11: Effect of Emergency Department Event on Labor Supply of Family Member



Note: Observations from MEPS 1996-2017 sample between 25 and 65 years old. Excludes events that are pregnancy-related. Excludes families with events during round 1 or 5 of the panel. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *hour* is weekly hours conditional on being employed, and *Hourly Wage* is hourly wage in dollars conditional on being employed. Robust standard errors are clustered at the family level.

4 Appendix Tables

Table A.1: Relationship to ill in round of event for working age population

Individual	ED Event (%)	Hospitalization (%)
Injured	46	48
Spouse/Partner/Sibling/Cousin	23	29
Child/Stepchild/Niece/Nephew	4	8
Grandchild	0	0
Parent/Aunt/Uncle	26	14
Grandparent/Elderly	1	0
Other	0	0
Total	100	100

Notes: Only for individuals between 25 and 65 years old,
in families where at least one member visited the ED or was hospitalized.

Table A.2: Descriptive Statistics

	Obs.	Mean	Std. Dev.	Min.	Max.
Female (%)	281638	52.52	49.94	0	100
Age	281638	36.71	22.15	0	90
Family Size	281638	3.39	1.70	1	14
Hispanic (%)	281638	26.58	44.18	0	100
Black (%)	281638	17.67	38.14	0	100
White (%)	281638	73.89	43.92	0	100
Employed (%)	220455	59.39	45.09	0	100
Weekly Hours Worked	147978	37.41	12.57	1	168
Wage Weekly Income	131806	744.64	613.71	0	8071
Has some insurance (%)	281638	82.92	33.96	0	100

Note: Observations from MEPS 1996-2017 sample *Weekly Hours Worked* is conditional on being employed, and *Wage Weekly Income* is wage in 2017 dollars conditional on being employed.

Table A.3: Family Emergency Department Shock Labor Outcomes: Overall

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages	(4) Hours per week	(5) Miss Work to Caregive	(6) Days Missed to Caregive
Post Event	0.0314	0.00451	-0.0932	0.0724	0.0367	0.177
	(0.0145)	(0.00215)	(0.0368)	(0.0475)	(0.00344)	(0.0232)
Constant	4.885	0.772	22.41	40.77	-0.177	-2.061
	(0.333)	(0.0489)	(0.827)	(1.007)	(0.0747)	(0.533)
Obs.	517208	585682	380701	438656	432857	445040
Mean Dep. Var	5.143	0.803	23.42	40.69	0.0641	0.196
SD Dep. Var	2.859	0.398	13.67	11.84	0.245	1.715

Note: Robust standard errors clustered at the family level. Observations are from MEPS 1996-2017. The sample excludes ED events that are pregnancy related. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed. *Miss Work to Caregive* refers to a binary variable of having missed at least a half day of work for caring for family members. *Days Missed to Caregive* refers to number of at least half days missed for caring for family members. Both caregiving variables are conditional on being employed.

Table A.4: Injury Emergency Department Self Effect

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages	(4) Hours per week
Post Event	-0.0973	-0.0145	-0.0873	-0.123
	(0.0329)	(0.00473)	(0.0858)	(0.117)
Constant	5.003	0.787	22.62	40.67
	(0.308)	(0.0453)	(0.746)	(0.913)
Obs.	492715	558840	362925	419326
Mean Dep. Var	5.036	0.791	21.94	41.27
SD Dep. Var	2.886	0.407	12.55	12.02

Note: Robust standard errors clustered at the individual level. Observations are from MEPS 1996-2017. The sample excludes individuals in single member families, ED events that are pregnancy related, and events with no injury conditions. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1+income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed.

Table A.5: Noninjury Emergency Department Self Effect

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages	(4) Hours per week
Post Event	-0.0909	-0.0179	0.0639	-0.0695
	(0.0212)	(0.00321)	(0.0576)	(0.0729)
Constant	4.824	0.764	22.29	40.49
	(0.301)	(0.0445)	(0.722)	(0.887)
Obs.	526851	595853	382135	440932
Mean Dep. Var	4.508	0.718	21.93	40.13
SD Dep. Var	3.109	0.450	13.05	12.01

Note: Robust standard errors clustered at the family level. Observations are from MEPS 1996-2017. The sample excludes individuals in single member families, ED events that are pregnancy related, and events with injury conditions. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed.

Table A.6: Injury Emergency Department Family Effect: Men

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages	(4) Hours per week	(5) Miss Work to Caregive	(6) Days Missed to Caregive
Post Event	0.0560	0.00939	-0.197	0.00284	0.0209	0.0782
	(0.0347)	(0.00454)	(0.0995)	(0.125)	(0.00647)	(0.0262)
Constant	5.965	0.899	24.27	43.09	-0.112	-0.574
	(0.539)	(0.0738)	(1.437)	(1.573)	(0.0942)	(0.631)
Obs.	193667	229379	157668	189131	187347	191674
Mean Dep. Var	5.627	0.857	25.20	43.16	0.0447	0.134
SD Dep. Var	2.638	0.350	14.38	11.44	0.207	1.539

Note: Robust standard errors clustered at the family level. Observations are from MEPS 1996-2017, only including men. The sample excludes ED events that are pregnancy related, and events with no injury conditions. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed. *Miss Work to Caregive* refers to a binary variable of having missed at least a half day of work for caring for family members. *Days Missed to Caregive* refers to number of at least half days missed for caring for family members. Both caregiving variables are conditional on being employed.

Table A.7: Injury Emergency Department Family Effect: Women

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages (S)	(4) Hours per week	(5) Miss Work to Caregive	(6) Days Missed to Caregive
Post Event	0.0553	0.00788	-0.0236	0.147	0.0132	0.169
	(0.0304)	(0.00487)	(0.0969)	(0.122)	(0.00923)	(0.0592)
Constant	4.314	0.705	21.66	37.62	-0.190	-2.696
	(0.500)	(0.0780)	(1.083)	(1.601)	(0.128)	(0.957)
Obs.	228770	251029	155138	173270	170234	175776
Mean Dep. Var	4.716	0.751	21.63	37.83	0.0824	0.256
SD Dep. Var	2.973	0.432	12.64	11.65	0.275	1.890

Note: Robust standard errors clustered at the family level. Observations are from MEPS 1996-2017, only including women. The sample excludes ED events that are pregnancy related, and events with no injury conditions. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed. *Miss Work to Caregive* refers to a binary variable of having missed at least a half day of work for caring for family members. *Days Missed to Caregive* refers to number of at least half days missed for caring for family members. Both caregiving variables are conditional on being employed.

Table A.8: Noninjury Emergency Department Family Effect: Men

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages	(4) Hours per week	(5) Miss Work to Caregive	(6) Days Missed to Caregive
Post Event	0.0265	0.00200	-0.155	0.0395	0.0275	0.121
	(0.0267)	(0.00375)	(0.0568)	(0.0722)	(0.00470)	(0.0398)
Constant	5.738	0.867	23.81	44.43	-0.136	-1.314
	(0.509)	(0.0701)	(1.364)	(1.472)	(0.0923)	(0.630)
Obs.	219894	258519	178175	211717	209757	214747
Mean Dep. Var	5.616	0.855	25.10	43.14	0.0457	0.138
SD Dep. Var	2.643	0.352	14.36	11.41	0.209	1.555

Note: Robust standard errors clustered at the family level. Observations are from MEPS 1996-2017, only for men. The sample excludes ED events that are pregnancy related and injury conditions. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1+income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed. *Miss Work to Caregive* refers to a binary variable of having missed at least a half day of work for caring for family members. *Days Missed to Caregive* refers to number of at least half days missed for caring for family members. Both caregiving variables are conditional on being employed.

Table A.9: Noninjury Emergency Department Family Effect: Women

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages	(4) Hours per week	(5) Miss Work to Caregive	(6) Days Missed to Caregive
Post Event	0.0184	0.00380	-0.0311	0.107	0.0533	0.277
	(0.0242)	(0.00387)	(0.0556)	(0.0767)	(0.00672)	(0.0450)
Constant	4.308	0.706	21.48	37.37	-0.209	-2.912
	(0.483)	(0.0756)	(1.060)	(1.520)	(0.124)	(0.929)
Obs.	253503	277165	169776	188854	185679	191655
Mean Dep. Var	4.703	0.749	21.61	37.87	0.0817	0.255
SD Dep. Var	2.980	0.434	12.63	11.63	0.274	1.871

Note: Robust standard errors clustered at the family level. Observations are from MEPS 1996-2017, only for women. The sample excludes ED events that are pregnancy related and injury conditions. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1+income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed. *Miss Work to Caregive* refers to a binary variable of having missed at least a half day of work for caring for family members. *Days Missed to Caregive* refers to number of at least half days missed for caring for family members. Both caregiving variables are conditional on being employed.

Table A.10: Inpatient Self Effect

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages (S)	(4) Hours per week
Post Inpatient	-0.259	-0.0420	-0.0463	-0.245
	(0.0234)	(0.00359)	(0.0597)	(0.0827)
Constant	4.704	0.742	21.84	40.79
	(0.278)	(0.0413)	(0.664)	(0.835)
Obs.	629721	708766	451032	518216
Mean Dep. Var	4.183	0.669	22.02	40.57
SD Dep. Var	3.219	0.470	13.34	12.13

Note: Observations are from MEPS 1996-2017 and regression output includes 25-65 year olds who themselves were hospitalized. The sample excludes events that are pregnancy related and individuals in single member families. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1 + income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed.

Table A.11: Inpatient Family Effect: Overall

	(1) Log(Weekly Income)	(2) Employed	(3) Hourly Wages	(4) Hours per week	(5) Miss Work to Caregive	(6) Days Missed to Caregive
Post Inpatient	0.00886	0.00130	-0.143	-0.0790	0.103	0.631
	(0.0214)	(0.00313)	(0.0459)	(0.0663)	(0.00565)	(0.0474)
Constant	4.769	0.751	21.82	41.04	-0.173	-1.791
	(0.315)	(0.0465)	(0.767)	(0.947)	(0.0701)	(0.491)
Obs.	602261	678832	438358	503227	496490	510570
Mean Dep. Var	5.094	0.798	22.94	40.57	0.0706	0.210
SD Dep. Var	2.866	0.402	13.54	11.85	0.256	1.701

Note: Robust standard errors clustered at the family level. Observations are from MEPS 1996-2017. The sample excludes events that are pregnancy related. Includes controls for family size, insurance status, linear age. *Log Weekly Income*, or $\log(1+income)$ includes those not employed with income set to zero, *Employed* is an indicator for employment, *Hourly Wage* is hourly wage in 2017 dollars conditional on being employed, and *Hours per Week* is weekly hours conditional on being employed. *Miss Work to Caregive* refers to a binary variable of having missed at least a half day of work for caring for family members. *Days Missed to Caregive* refers to number of at least half days missed for caring for family members. Both caregiving variables are conditional on being employed.

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