The Impact of Informal Caregiving on Older Adults' Labor Supply and Economic Resources

Final Report

THE IMPACT OF INFORMAL CAREGIVING ON OLDER ADULTS' LABOR SUPPLY AND ECONOMIC RESOURCES

Abstract

This study analyzes the effect of informal caregiving on older adults' labor supply and economic resources. Although we find no evidence that caregiving affects the wages or hours of workers, we do find that it reduces the likelihood of working. Men who provide personal care to parents or intensive care to spouses are less likely to work, as are women who provide intensive care to parents. As a result, over time, caregivers have a significantly higher probability of falling into poverty and also experience a smaller percentage growth in assets—particularly those who care for their spouses.

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THE IMPACT OF INFORMAL CAREGIVING ON OLDER ADULTS' LABOR SUPPLY AND ECONOMIC RESOURCES

Executive Summary

Many Americans provide crucial support to frail family members. Despite recent health improvements among adults ages 65 and older (Manton, Gu, and Lamb 2006), most people continue to develop disabilities as they grow older and eventually require assistance with the basic tasks of everyday life. Spouses and adult children usually provide this help. Working without pay and often putting in long hours over many months or years, family caregivers significantly improve the quality of life for many frail older adults. The help they provide often keeps older people out of expensive nursing facilities and in their own homes, which most prefer.

Yet care responsibilities often impose serious burdens on caregivers. If unpaid caregivers take lower paying jobs, reduce their work hours, or quit their jobs, they might not save as much and might end up with lower Social Security and pension benefits going into retirement. If they use their retirement savings to help pay caregiving expenses, they could also start retirement at a disadvantage. They might even find themselves having to delay retirement because they can't afford to retire. It is important to understand how informal caregiving affects labor supply and retirement savings—particularly for women. Their retirement security can already be precarious and they are most likely to provide care.

Using data from the 1996 through 2010 waves of the Health and Retirement Study (HRS), this study analyzes the effect of informal caregiving on older adults' labor supply and economic resources. In particular, it considers how the likelihood of working, the hours and wages of workers, household assets, and the likelihood of becoming poor are influenced by caregiving activities. It distinguishes between parent and spouse caregivers, personal caregivers and household helpers, and light caregiving and intensive caregiving.

The key findings are:

Incidence of Caregiving

- One in five adults ages 51 and older have a high risk of someday having to provide parental care because their parents or parents-in-law are in poor health. Additionally, 6 percent of married adults of the same age are at risk of having to take care of their spouses who are in poor health.
- Overall, 29 percent of adults ages 51 and older spend time caring for parents or parents-in-law in any two-year period, but 57 percent ever provide parent care over a 12-year period. Caregiving rates decline with age, but increase with education, income, and health. Women are more likely than men and unmarried adults are more likely than married adults to be caregivers. The incidence of caregiving is even higher among those with parents in poor health.
- Overall, 6.5 percent of married adults ages 51 and older provide care for their spouses in any two-year period, but 18 percent ever provide spouse care over a 12-year period. Spouse caregivers are very different from parent caregivers. The share of spouse

caregivers rises with age and is highest for married adults without high school diplomas, those in fair or poor health, and those with the lowest income and assets—all of whom are more likely to have spouses with health problems.

- For the majority of adults, caregiving is a temporary situation, with around a third of parent caregivers and half of spouse caregivers providing care in only one wave. Among parent caregivers, personal care (help with dressing, bathing, and eating) is less common and more temporary than household help (cleaning, shopping, preparing meals, etc.). However, personal caregivers contribute much more time to caregiving than household helpers—an average of 481 and 622 personal care hours per year for men and women, respectively, compared with 169 and 213 hours per year for male and female household helpers. Personal caregivers are more likely than household helpers to provide intensive care (at least 1,000 hours annually).

Informal Caregiving and Labor Supply

- The descriptive results show that caregivers are less likely to work, are more likely to work part-time, and tend to work fewer hours than noncaregivers. The most striking observed employment differences are between male caregivers and noncaregivers (as opposed to females), personal caregivers and household helpers, intensive caregivers and light caregivers, and spouse caregivers and parent caregivers. Still, the differences are not as large as one might expect.
- Much of the observed negative correlation between caregiving and work is driven by unobservable individual-specific factors that likely impact both one's propensity to provide care and one's propensity to work. Once these unobservable factors are controlled for, the causal impact of caregiving on labor force participation, wages, and hours diminishes significantly.
- We find no statistically significant evidence that caregiving affects the wages or hours of workers, but we do find that it reduces the likelihood of working. Men are 1.7 percentage points less likely to work if they provide parent care and 3.9 percentage points less likely to work if they provide personal care. Women are 3.4 percentage points less likely to work if they provide intensive care to parents.
- Married men who take care of their spouses are 2.9 percentage points less likely to work and those who provide intensive care are 9.9 percentage points less likely work than their counterparts. Spousal caregiving has no statistically significant impact on women's labor supply—neither on their labor force participation nor on their wages and hours.

Informal Caregiving and Financial Resources

- On average, parent caregivers are financially better off than noncaregivers—with less debt and higher non-wage income and assets. For example, the typical caregiver has net assets of $142,300 per person, while the typical noncaregiver has only $120,000. The differences are even larger when we consider only those with parents in poor health—suggesting that well-off households are more likely to take care of their parents or parents-in-law than noncaregivers.
- The opposite is true for spouse caregivers. They are significantly more likely to be poor, less likely to be homeowners, and have close to $15,000 less total household income per

person and $74,000 less net total assets than noncaregivers. The differences decline dramatically, however, when we control for having a spouse in poor health.

- Although parent caregivers are financially better off than noncaregivers, over time parent caregivers experience less growth in their assets and are more likely to fall into poverty—even after controlling for other factors. For example, each wave of parental caregiving reduces the percentage growth in assets 2.3 percent, while each wave of personal caregiving reduces it 4.6 percent. Also, each additional wave spent providing parent care increases the likelihood of falling into poverty 3 percentage points, while each wave of intensive care increases the chances 11.9 percentage points.

- Spouse caregiving has an even stronger impact on economic well-being than parent caregiving. Each wave of intensive spousal care lowers wealth $9,200, reduces the percentage growth in wealth 13.6 percent, and increases the chances of falling into poverty 5 percentage points. Furthermore, those who ever provide spouse care have $11,900 or 11.6 percent less wealth 10 years later, while those who ever provide intensive spouse care have $19,100 or 24.8 percent less wealth and are 9.7 percentage points more likely to be poor.

Economic Costs of Caregiving

- We estimate that adults ages 51 to 70 contributed between $62.9 and $160.2 billion of informal caregiving to society in 2010. Parent care, which is more common, accounted for more than half the total value—$34.3 to $89.8 billion. Spouse care accounted for $28.6 to $61.6 billion.

Much of the current policy debate on retirement preparedness has focused on the economic cost of the aging population and the importance of encouraging work at older ages, while at the same time ignoring the significant unpaid activities undertaken by older Americans. The pressure for informal caregiving will likely intensify as the population ages in coming decades and caregiver burdens increase. Between 2015 and 2060, the size of the population ages 65 and older is projected to increase from 48 to 92 million, while the population ages 85 and older, which has the highest disability rate of any age group, is expected to increase from 6 to 18 million, rising from 2 to 4 percent of the total population (U.S. Census Bureau 2012).

The results of this study improve policymakers' understanding of how caregiving activities affect labor supply and economic resources. Although we find no evidence that caregiving affects the wages or hours of workers, we do find that it reduces the likelihood of working. Men who provide personal care to parents or intensive care to spouses are less likely to work, as are women who provide intensive care to parents. As a result, over time, caregivers have a significantly higher probability of becoming poor and also experience a smaller percentage growth in assets—particularly those who care for their spouses.

Spousal caregiving most likely has a stronger impact on work and economic resources because the poor health of one spouse and the caregiving activity of the other spouse result in decreased work attachment for both members of the household. Parental caregiving, in contrast, typically reduces the labor supply of only one household member—the caregiver.

According to Block, Park, and Kang (2013), the United States ranks low among developed countries in policies that support family-work balance. Expanding FMLA coverage and increasing its generosity could help reduce these disparities and strengthen families, while at the same time provide important benefits to society. Additionally, policy options such as Social Security caregiver credits could boost retirement incomes for those adults who take time out of the labor force to provide care for family members (Favreault 2010).

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Final Report

I. Introduction

Many Americans provide crucial support to frail family members. Despite recent health improvements among adults ages 65 and older (Manton, Gu, and Lamb 2006), most people continue to develop disabilities as they grow older and eventually require assistance with the basic tasks of everyday life. Spouses and adult children usually provide this help. Working without pay and often putting in long hours over many months or years, family caregivers significantly improve the quality of life for many frail older adults. The help they provide often keeps older people out of expensive nursing facilities and in their own homes, which most prefer. Informal family caregivers also save the public billions of dollars every year by reducing nursing home admissions and limiting the use of paid home care. In 2002, adults ages 55 and older contributed more than $60 billion worth of informal care provided to their frail parents or spouses (Johnson and Schaner 2005).

Yet care responsibilities often impose serious burdens on caregivers, especially those balancing elder care duties with paid employment and care of their own children. More than half of people caring for their frail parents are employed full time, and another 10 percent are employed part time (Johnson and Wiener 2006). Two-thirds of caregivers (68 percent) are in their 40s and 50s, important ages for retirement asset accumulation. Informal caregiving can strongly influence labor market activities, as well as financial planning and retirement preparation of caregivers.

If unpaid caregivers take lower paying jobs, reduce their work hours, or quit their jobs, they might not save as much and might end up with lower Social Security and pension benefits going into retirement. If they use their retirement savings to help pay caregiving expenses, they could also start retirement at a disadvantage. They might even find themselves having to delay retirement because they can't afford to retire. It is important to understand how informal caregiving affects labor supply and retirement savings—particularly for women. Their retirement security can already be precarious and they are most likely to provide care.

This study considers the effect of informal caregiving on older adults' labor supply and economic resources. Using data from the Health and Retirement Study (HRS), we find that two in five adults over the age of 50 are at risk of having to someday take care of their elderly parents or parents-in-law. For one in five adults, the possibility is more imminent because their parents are already in poor health. In addition, 6 percent of married adults over the age of 50 are at risk of having to provide care to their spouses who are in poor health.

Among those at risk, we observe 29 percent of adults already taking care of their parents and 6.5 percent already taking care of their spouses. Looking over a 12-year period, however, the share who ever provide care is 57 percent for those with surviving parents or parents-in-law and 18 percent for those who are married.

For the majority of adults, caregiving is a temporary situation, with around a third of parent caregivers and half of spouse caregivers providing care in only one wave. Among parent caregivers, personal care (help with dressing, bathing, and eating) is less common and more temporary than household help (cleaning, shopping, preparing meals, etc.). However, personal caregivers contribute much more time to caregiving and are more likely to provide intensive care (at least 1,000 hours annually) than household helpers.

Although we find no evidence that caregiving affects the wages or hours of workers, we do find that it reduces the likelihood of working. Men who provide personal care to parents or intensive care to spouses are less likely to work, as are women who provide intensive care to parents. As a result, over time, caregivers have a significantly higher probability of becoming poor and also experience a smaller percentage growth in assets—particularly those who care for their spouses. Spousal caregiving most likely has a stronger impact on work and economic resources because the poor health of one spouse and the caregiving activity of the other spouse result in decreased work attachment for both members of the household. Parental caregiving, in contrast, usually reduces the labor supply of only one household member—the caregiver. Our findings have a range of important policy implications regarding to the incidence of informal caregiving and its impact on current and future retiree financial preparedness.

II.   Background

Numerous researchers have examined the relationship between caregiving and work. Most of these studies find a negative relationship between caregiving and labor force participation, particularly among women (Bittman, Hill, and Thomson 2007; Bolin, Lindgren, and Lundborg 2008; Crespo and Mira 2010; Ettner 1995; Lee and Tang 2013; Lilly, Laporte, and Coyote 2010; Pavalko and Artis 1997; Van Houtven, Coe, and Skira 2013).

However, there is less consensus on the effects of caregiving on labor supply, such as hours of work. For example, Johnson and Sasso (2006) use the HRS to examine the impact of time transfers to elderly parents on labor supply in midlife and find that time helping parents strongly reduces female labor supply. Van Houtven et al. (2013), also using HRS data, find that female care providers who remain employed reduce their labor supply 3 to 10 hours per week and earn hourly wages that are 3 percent less than those for noncaregivers. Lilly, Laporte, and Coyote (2007) use Canadian data and find that caregivers work fewer hours than noncaregivers, particularly the more intensive the care they provide. In contrast, Bolin et al. (2008) and Casado-Marin, Garcia-Gomez, and Lopez-Nicolas (2011) using European data, Lilly et al. (2010) using Canadian data, and Wolf and Soldo (1994) and Ettner (1995) using US data find little evidence that caregiving reduces labor hours or wages. The lack of consensus among studies arises because of different research questions about paid work and caregiving activities, different definitions of caregiving, and different empirical techniques, as well as from data limitations.

A review of these studies finds that the effects of caregiving on work are not uniform and that they differ for men and women, coresiding and nonresident care providers, light and intensive caregivers, and parent, spouse, and grandchild care recipients. For example, Dentinger and Clarkberg (2002) use data from the Cornell Retirement and Well-Being Study and find that caregiving increases the likelihood of retiring for women, but delays retirement for men. While

Lee and Tang (2013), using the HRS, also find that caregiving influences labor force participation for women, they find that it has no effect on labor force participation for men. Wakabayashi and Donato (2005) find differences even among women—those who are older, less educated, or married are more negatively impacted by the onset of caregiving than their counterparts. Ettner (1995) finds lower labor force participation rates only among women who provide care to someone living with them. However, the author does find fewer work hours, compared with noncaregivers, even among women who care for someone living outside their home. Casado-Marin et al. (2011) also find labor market effects of caregiving only for women who provide care to someone living with them; however, they only find these effects for labor force participation and not for hours worked. Jacobs, Laporte, Van Houtven, and Coyote (2014) find that intensive caregiving is associated with early retirement. Similarly, Nguyen and Connelly (2014) find that being the main caregiver (i.e. providing more intensive care) is associated with a significantly lower likelihood of working, while being a secondary caregiver (i.e. providing lighter care) has no effect on employment probabilities. Finally, Dentinger and Clarkberg (2002) find that only spouse care influences the timing of retirement for women, while caring for spouses, parents, or other relatives influences men's retirement.

Informal caregiving can also influence caregivers' economic well-being if they reduce their labor supply or take lower-paying jobs, or dip into their savings to cover their own living expenses or to pay any caregiving costs. However, the literature examining the more direct economic impacts of informal care is quite sparse, likely due to data constraints. Orel, Ford, and Brock (2004) focus on a pilot study of 138 middle-aged and older females and find that four-fifths of female caregivers did not realize the long-term financial consequences of caregiving and more than a third did not realize the immediate financial implications of providing care.

Wakabayashi and Donato (2006) examine how women's caregiving impacts their likelihood of poverty eight years later. They find that caregivers are significantly more likely than noncaregivers to end up in poverty or receiving public assistance. However, these results are driven primarily by declines in health and the cessation of work among caregivers. For example, caregivers who continued working or remained in good health had a very low probability, no different than their noncaregiver counterparts, of ending up poor. Similarly, Yun et al. (2005) find that caregivers who are poor, in bad health, or pay high medical expenses are more likely to lose their family savings. So it's not clear that caregiving by itself puts individuals at financial risk. Lee, Tang, Kim, and Albert (forthcoming) try to disentangle the effects using data from the HRS to examine the reciprocal relationship between caregiving and economic well-being for older women. The authors find that women who care for parents or parent in-laws are more likely than those who do not to have low incomes. At the same time, they find that women with low incomes are more likely than those with higher incomes to assume caregiving responsibilities for parents and parent in-laws.

Using the most recent HRS data, our study extends the previous research studies by considering the effect of caregiving on income and assets, in addition to its effect on labor supply. Furthermore, while most studies have focused only on parent care, our study also considers spouse care.

III.   Data

The data for this analysis comes from the Health and Retirement Study (HRS), a large national survey of older Americans conducted by the University of Michigan for the National Institute on Aging. The HRS began in 1992 with interviews from a sample of non-institutionalized Americans born between 1931 and 1941 (when they were ages 51 to 61) and their spouses (regardless of age). Respondents are interviewed every two years. In 1993, the survey added adults born before 1924 (when they were age 70 or older) and their spouses. In 1998, it added adults born between 1924 and 1930 (when they were ages 68 to 74) and their spouses. Every six years, beginning in 1998, the HRS adds another new sample of Americans ages 51 to 56. The 2010 HRS now includes respondents born through 1959, with some respondents having been followed for 20 years.

The HRS is particularly useful for studies of labor supply and caregiving. It has detailed longitudinal information on labor supply, family structure, intergenerational transfers, and health for a large sample of respondents. In addition, the HRS collects rich information on economic resources, which makes it ideal for assessing the impact of caregiving on a range of outcomes besides labor supply, such as incomes, assets, and debt.

Our analysis uses the 1996 through 2010 HRS surveys.[1] We construct two data samples—one to analyze parent care and the other to analyze spouse care. The first sample includes adults ages 51 and older with a surviving parent or parent-in-law. For this sample, we can distinguish between informal personal care and household help. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing, while household help includes providing assistance with household chores, errands, and transportation. Respondents are asked whether they provided parents or parents-in-law with personal care or household assistance of at least 100 hours over the past two years. Those who answer affirmatively are our parent caregivers and the rest are noncaregivers. The second sample includes adults ages 51 and older with a surviving or recently deceased spouse. Respondents are asked whether they provided at least 50 hours of assistance over the past year to surviving spouses or provided care in the last three months of life to recently decease spouses. Those who answer affirmatively are our spouse caregivers and the rest are noncaregivers.

In any two-year period, between 1996 and 2010, around 30 percent of adults ages 51 and older with parents or parents-in-law provided care to them and about 7 percent of adults ages 51 and older with surviving or recently deceased spouses provided care to them (not shown).[2] Because the pattern of caregiving is fairly steady over time, we pool the cross-sections to increase our sample sizes. Our descriptive analyses use per capita measures of income, assets, and debt, while our regression results, which control for marital status, use household measures of income, assets, and debt. We report all dollar amounts in 2010 dollars.

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[1] Although the 2012 HRS data has been released, the weights were not yet available when we began the study.
[2] Just over 3 percent of respondents in the parent-care sample and close to 8 percent in the spouse-care sample provide both parent and spouse care. Controlling for the joint provision of care (both to parents and spouses) made little difference to our regression results. The coefficient on the joint provision of care variable was not statistically different from zero, suggesting that our results are driven predominantly by the provision of parent care in our parent-care sample and spouse care in our spouse-care sample.

Our pooled parent-care sample includes 49,800 person-years—14,086 caregivers and 35,714 noncaregivers—and our pooled spouse-care sample includes 81,786 person-years—6,106 caregivers and 75,680 noncaregivers (Appendix table A1).

IV.   Methods

We begin by comparing the characteristics of caregivers and noncaregivers. We consider respondents' age, sex, race, education, marital status, self-reported health status, income, number of own children, and parent and spouse characteristics—including their age, sex, physical health, mental health, financial situation, and living arrangements. Then, focusing on caregivers, we explore the type of care they provide (assisting with personal care or household chores), as well as the incidence, intensity, and duration of care over time.

Providing informal care can influence the likelihood of paid work, as well as work hours and earnings. Caregiving can also affect economic resources if caregivers use their savings, for example, to defray the cost of care or to support their own financial needs. In this analysis, we focus on better understanding these relationships. We begin by comparing the share of workers, average hours worked, and average wages of older adults who provide informal care and those who do not. For those who provide informal care, we also look at how their work and earnings vary by both the type and intensity of care provided. We then repeat this analysis by considering older adults' economic resources.

Because noncaregivers include those with frail parents or spouses as well as those whose parents or spouses are in better health, we also compare differences between caregivers and noncaregivers among those whose parents or spouses are in poor health. We classify parents and parents-in-law as being in poor health if they need assistance with personal activities, have a memory disease, or are unable to be left alone. We classify spouses as being in poor health if they report difficulty with activities of daily living (ADLs).[3]

We then estimate the impact of informal caregiving, separately, on the probability of working, hours of paid work, wages, net worth, and the probability of falling into poverty. We consider whether the outcome measures differ by caregiving alone, if at all, and whether they also differ by the type of care and the intensity of care. Our main variables of interest are indicators for whether respondents provide any care, personal care, household help, or intensive care defined as at least 1,000 care hours annually.[4] We control for respondent's age, sex, race, education, marital status, health status, income, number of children under age 22, and spouse's work and earnings.

Generally, we can write the models that we estimate in the following way:

$$y_{it} = f(CG_{it}, \boldsymbol{X}_{it}, \propto_i, \varepsilon_{it}) \qquad\qquad (1)$$

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[3] ADLs include eating, getting in and out of bed, and using the toilet.
[4] Our analysis distinguishes between intensive care and light care, where light care is defined as between 50 and 249 annual hours of care.

where the dependent variable y_{it} in equation (1) consists of the series of outcome measures described above, CG_{it} is a measure of informal care, for which we use several definitions, X_{it} is a vector of controls, including socio-demographic characteristics, $\propto_i$ is a time-invariant individual specific effect, and ε_{it} is the error term.

Our main set of results is achieved via linear fixed effects models on the likelihood of paid employment and on annual hours of work, weekly hours of work, and log wages, all conditional on working. The fixed effects framework allows us to take advantage of the panel nature of our data and to control for the effect of unobserved idiosyncratic person-level factors that might affect our outcome measures. Fixed effects models allow the individual effect to be correlated with CG_{it} and X_{it}, and can potentially capture the effect of individual characteristics such as a taste for caregiving that might impact both caregiving and individual's work or saving behavior. Unless we control for these idiosyncratic person-level factors, we could overstate (i.e. bias upward) or understate (i.e. bias downward) the impact of caregiving on our outcome measures. Previous literature has found evidence for such individual-specific effects in terms of caregiving (Johnson and Lo Sasso 2006; Van Houtven et al. 2013).[5]

Estimating fixed effects models is one way to control for potentially confounding effects of time-invariant individual unobserved characteristics—which if omitted would cause the error term to be correlated with the independent variables. However, fixed effects models do not rule out other potential sources of endogeneity or reverse causality. For example, any other omitted time-varying factors that are correlated with time-varying caregiving and time-varying labor supply or assets would be a source of endogeneity. Indeed Van Houtven et al. (2013) find evidence for the existence of such effects when estimating the effect of caregiving on weekly work hours among women.

The presence of such factors could lead to the inconsistent estimation of the regressors. In order to correctly identify the causal impact of caregiving, we adopt the approach used in previous studies by instrumenting our caregiving measures with a vector of instruments Z_{it} that affect the likelihood and intensity of caregiving, but are not directly related to individuals' labor supply decisions or asset outcomes. The relationship between caregiving and the instruments is specified as follows:

$$CG_{it} = g(X_{it}, Z_{it}, \delta_i, \epsilon_{it}) \qquad (2)$$

In the parent caregiving specifications, the instruments capture parent or parents-in-law health (whether they need assistance with personal activities, have a memory disease, or are unable to be left alone), as well measures of whether the respondent's mother or mother-in-law has been recently widowed. In the spouse caregiving specifications, the instruments capture the spouse's

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[5] An alternative specification that accounts for unobserved heterogeneity would be the random effects model. After estimating both sets of models and conducting Hausman tests, we concluded that random effects would produce inconsistent estimates for the labor supply equations. The Hausman specification test compares the fixed versus random effects under the null hypothesis that the individual effects are uncorrelated with the other regressors in the model (Hausman 1978). If correlated (H0 is rejected), a random effects model produces inconsistent estimators, violating one of the Gauss-Markov assumptions; so a fixed effects model is preferred. Hausman's essential result is that the covariance of an efficient estimator with its difference from an inefficient estimator is zero (Greene 2003).

ADL or instrumental activities of daily living (IADL) limitations.[6] We believe these instruments are theoretically sound and directly relate to the demand for informal care, but do not directly affect the respondent's work other than through the informal care channel.[7]

We also examine the relationship between the duration and intensity of caregiving and household wealth by estimating median regressions on the level and percent change in net worth over time. Finally, we examine how the probability of falling into poverty is related to the years spent caregiving.

In the labor supply regressions, we limit the sample to respondents observed to have worked at least once past age 45 in order to focus on those individuals who are at risk of making employment and labor hours decisions. We also examine the labor supply outcomes separately for men and women. In the regressions of assets and poverty, we follow individuals for a period of five waves and compare outcomes at the end with those at the beginning of the spell.

V.   Identifying Informal Caregivers

Around 43 percent of adults ages 51 and older have surviving parents or parents-in-law putting them at risk of one day having to provide parental care (table 1). While this risk declines considerably with age, it is high even among the oldest age group. During their peak work years, 82.8 percent of 51-54 year-olds are at risk of having to provide parent care. As 60-69 year-olds contemplate retirement, 44.8 percent of them are at risk of having to take care of their parents. In general, the risk is highest among adults who are college educated, married, in excellent health, and who have the highest income and assets. For 19.3 percent of adults ages 51 and older, the decision about whether or not to provide care is more imminent because their parents or parents-in-law are already in poor health. Finally, 6.2 percent of married older adults are at risk of having to care for their spouses who are in poor health. Different from the risk of having to provide parent care, the risk of having to provide spouse care is highest among those who do not have high school diplomas, are in poor health themselves, and have low income and assets.

Who are Informal Caregivers?

Overall, 12.3 percent of adults ages 51 and older provide care for their parents or parents-in-law over a two-year period (table 2). The incidence of parental caregiving is highest among the same groups most at risk of having a parent or parent-in-law. For example, 23.3 percent of adults ages 51-54, 15.6 percent of those with college degrees, 14.1 percent of those who are married, 17.4

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[6] IADLs relate to limitations with shopping, preparing meals, taking medication, using the phone, and handling money.

[7] Concerns about parents' health being correlated with their adult children's health via genetic predisposition, for example, will be addressed by directly controlling for caregivers' health in the outcome equation. We also tried using instruments related to the potential access to alternative sources of care, such as the number of adult siblings, parental marital status, the financial situation of the parent, parental home ownership, whom parents live with, and whether parents live within 10 miles of the respondent, as well as cross-state-time variation in home- and nursing-aide wages to capture the market for formal care services. Through extensive testing, we found the instruments described in the main text to be the empirically strongest. With these instruments, we pass the joint significant test in the first-stage regression with an F-stat of at least 10, and we fail to reject the Sargan-Hansen test of over-identifying restrictions, which boosts our confidence in the validity of the instruments.

percent of those with the highest incomes, and 13.5 percent of those with the highest assets provide parental care. This profile is consistent with those portrayed in other studies (i.e., Gitlin and Schulz 2012).

As expected, the incidence of caregiving is even higher among just those adults with surviving parents, and especially among those whose parents are in poor health. For example, 29 percent of adults ages 51 and older with surviving parents and 36.4 percent of those with surviving parents in poor health provide parental care. Women are more likely than men and unmarried adults are more likely than married adults to be caregivers. For example, 42.5 percent of women with parents or parents-in-law in poor health are caregivers, compared with only 30.5 percent of men. Additionally, 45.4 percent of unmarried adults with parents in poor health provide care, compared with only 34.3 percent of married adults.

Overall, 6.5 percent of married adults ages 51 and older provide care for their spouses (table 3). Spouse caregivers are very different from parent caregivers. As expected, the share of spouse caregivers rises with age—from only 3.9 percent among married 51-54 year-olds to 10.3 percent among their counterparts ages 70 and older. Additionally, the frequency of spouse caregiving is highest for married adults without high school diplomas, those in fair or poor health, and those with the lowest income and assets, all of whom are more likely to have spouses with health problems. Of course, the share of spouse caregivers is significantly higher among married adults whose spouses are in poor health—with close to half (45.8 percent) of these older adults providing care. Among this group, many of the demographic and economic differences disappear.

Characteristics of Parents and Spouses

Next we explore how the characteristics of parents, parents-in-law, and spouses differ between caregivers and noncaregivers. To make the comparison between caregivers and noncaregivers more meaningful, we also limit some of our analyses to respondents whose parents or spouses are in poor health.

Among respondents with surviving parents, caregivers are significantly more likely than noncaregivers to have parents or parents-in-law who have a memory disease, live with them, live within 10 miles of them, or gave them at least $500 (table 4). The results are similar even for respondents whose parents or spouses are in poor health. For example, 57.5 percent of caregivers have parents with a memory disease compared with only 50.1 percent of noncaregivers. Furthermore, 15.4 percent of caregivers live with their parents and 59.3 percent have parents who live within 10 miles of them. In contrast, only 3.2 percent of noncaregivers have parents who live with them and only 35.6 percent have parents who live within 10 miles of them. Finally, 12.5 percent of caregivers received $500 or more from their parents compared with only 6.1 percent of noncaregivers. The mean amount of the gift was $8,193 among caregivers, but only $7,038 among noncaregivers.

Among respondents with surviving or recently deceased spouses, caregivers are significantly more likely than noncaregivers to have spouses in fair or poor health or who need assistance with IADLs—even controlling for spouses who need assistance with ADLs. Among adults whose

spouses have ADL limitations, 80.2 percent of caregivers have spouses in fair or poor health compared with only 61 percent of noncaregivers. Futhermore, 81.9 percent of caregivers have spouses with IADL impairments, compared with only 34 percent of noncaregivers.

To summarize, we find that the parents and spouses of caregivers are physically and economically worse off than those of noncaregivers—even considering only those respondents whose parents and spouses are in poor health.

How Common is Caregiving?

Although 29 percent of adults ages 51 and older in our parent-care sample provide care in any two-year period (see table 2), over a 12-year period the share who ever provide parent care is 57 percent (not shown).[8] Similarly, 6.5 percent of adults in our spouse-care sample provide care in any two-year period (see table 3), but 18 percent ever provide spouse care over a 12-year period (not shown). These statistics underscore the high likelihood of one day having to provide parent or spouse care.

Table 5 considers how the likelihood of caregiving differs for men and women—again looking over a 12-year period. We find that 51.7 percent of men and 62.7 percent of women provide parent care in at least one wave, while 16.3 percent of men and 20.5 percent of women provide spouse care at some point.

For the majority of adults, caregiving is a temporary situation. Among parent caregivers, for example, 39.2 percent of men and 31.3 percent of women provide care in only one wave. Only 4 percent of men and 7.8 percent of women provide six or more waves of care. In contrast, 44.3 percent of men and 58.5 percent of women provide spouse care in only one wave, and 6.2 percent of men and 2.8 percent of women provide care for six or more waves.

Women are more likely than men to ever provide care—either parental or spousal; however, female parent caregivers tend to provide assistance for many more years than their male counterparts, while female spouse caregivers provide assistance for fewer years than their male counterparts.

What Kind of Help Do Caregivers Provide?

Within the parent-care sample, we can distinguish between personal care and household help. Since it is likely more physically and mentally demanding, it is not surprising that personal care is less common than household help among caregivers. Only 25.7 percent of men and 40.9 percent of women report ever helping with personal activities such as dressing, bathing and eating, while 41.8 percent of men and 46.6 percent of women report ever helping only with household activities such as cleaning and shopping (table 5).

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[8] Our analysis includes respondents with surviving parents or parents-in-law, or with surviving or recently deceased spouses at the beginning of the period. Those meeting these criteria in either the 1996, 1998, or 2000 waves and who were subsequently interviewed in every wave after for at least five consecutive waves are in this analysis. These respondents represent 60 percent of those with surviving parents or parents-in-law and 68 percent of those with surviving or recently deceased spouses. Waves of care are not necessarily consecutive.

Personal caregivers are much more likely than household helpers to provide assistance in only one wave. For example, 68.4 percent of men and 58.2 percent of women provide one wave of personal care, while only 49.4 percent of men and 45.3 percent of women provide one wave of household help. In contrast, only 3.6 percent of men and 5 percent of women provide four or more waves of personal care, while 14.1 percent of men and 15.2 percent of women provide at four or more waves of household help. These differences may reflect differences in the physical and mental difficulties of personal care relative to household help, or they may reflect differences in the mortality rates of those needing help with personal care compared with those who require only household help.

How Intensive is Caregiving?

Not only are women more likely than men to be caregivers and to provide care for many years, they also provide more hours of care (table 6). Among caregivers, men average only 258 hours a year of parent caregiving, while women average 372 hours. Nearly 70 percent of men spend between 50 and 249 hours per year caring for their parents or parents-in-law, compared with only 58.6 percent of women. In contrast, only 5.4 percent of men spend 1,000 or more hours annually caring for their parents, compared with 10.8 percent of women.

Personal caregivers contribute much more of their time than household helpers. Men average 481 hours and women average 622 hours of personal care. In contrast, men average only 169 hours and women average only 213 hours of household help. Among personal caregivers, 15.6 percent of men and 24.3 percent of women provide intensive care (at least 1,000 hours). Among household helpers, only 1.3 percent of men and 2.3 percent of women provide intensive care. Instead, 79.5 percent of men and 71.8 percent of women provide between 50 and 249 hours of household help.

Spouse caregivers spend much more time providing care than parent caregivers. Among men, spouse caregivers devote at least six times more care hours per year than parent caregivers (compare 1,672 with 258 hours). Among women, spouse caregivers average almost five times more care hours than parent caregivers (compare 1,801 with 372 hours). Four in five spouse caregivers provide 250 or more hours of care and two in five provide 1,000 or more hours of care per year. Finally, in contrast to parent caregivers, the distribution of care hours among spouse caregivers is very similar for men and women.

VI.   Caregiving and Labor Supply

Next we analyze the relationship between caregiving and labor supply and wages. We consider individuals to be working if they report working for pay (either for someone else or self-employed), while we consider them not working if they are out of work, looking for work, or retired. For this analysis, we limit our sample to adults ages 51 to 70—the age by which most people will have retired.

How Do Labor Supply and Wages Compare Between Caregivers and Noncaregivers?

Among those with surviving parents or parents-in-law, caregivers are significantly less likely than noncaregivers to work (table 7). If they do work, caregivers are more likely to be part-time, average fewer work hours per year, and earn lower wages. They are also less likely to work in jobs that offer vacation and sick days. However, none of the work-related differences between caregivers and noncaregivers is very large.

Looking at caregivers, only 67 percent of men and 59.4 percent of women work—with 21.1 percent of men and 37.8 percent of women part-time. Among noncaregivers, in contrast, 71.9 percent of men and 61.3 percent of women work—with only 17.9 percent of men and 35.2 percent of women part-time. In general, parental caregiving is associated with greater reductions in labor supply and wages for men than women. Focusing on men, caregivers are nearly 5 percentage points less likely to work than noncaregivers (67 versus 71.9 percent). Among women, caregivers are only 2 percentage points less likely to work than noncaregivers (59.4 versus 61.3 percent). Furthermore, men average 66 fewer hours if they provide care (2,124 versus 2,190) and women average only 50 fewer hours if they provide care (1,774 versus 1,823).

Controlling for parental health reduces the observed differences between caregivers and noncaregivers, as most differences become statistically insignificant. However, even among adults with parents in poor health, caregiving is associated with larger reductions in labor supply for men than women. For example, only 64.7 percent of male caregivers work, averaging 2,102 hours of paid employment. By contrast, 68.9 percent of male noncaregivers work, averaging 2,149 hours.

Differences between caregivers and noncaregivers are larger in the spouse-care sample than in the parent-care sample—even after controlling for spouses' health (table 8). Among spouses in poor health, for example, only 47.1 percent of men and 41.3 percent of women both work and provide caregiving, while 56.5 percent of men and 47.7 percent of women work among those who are not caregivers. Interestingly, among men, caregivers also have significantly more vacation days (20.2 versus 14.8 days) and are also significantly more likely to have sick days (35.8 versus 29 percent) than noncaregivers.

Do Labor Supply and Wages of Caregivers Vary by the Type of Care?

We find statistically significant differences in labor supply and wages when we control for the type of parent care provided (table 9). Personal caregivers are less likely to work and more likely to work part-time than household helpers. For example, only 55.5 percent of personal caregivers work compared with 66.4 percent of household helpers. Among those who work, 31.6 percent of personal caregivers, but only 29.3 percent of household helpers are part-time. Additionally, personal caregivers work nearly one-and-one-half weeks less than household helpers and earn $2 less per hour.

How Do Labor Supply and Wages of Caregivers Vary by the Intensity of Care?

Both parent and spouse caregivers are less likely to work as they devote more time to caregiving (table 10). Among parent caregivers, for example, labor force participation rates decline from 65.7 percent for those providing between 50 and 249 annual hours of care, to 59.6 percent for those providing between 250 and 999 hours, to only 50.3 percent for those providing at least 1,000 hours. There is a similar, but even more dramatic, decline in work as spouse caregivers increase their care hours—from 56.1 percent for those with between 50 and 249 hours of care to only 35.3 percent for those with 1,000 or more hours. Even among workers, we observe a decline in their labor supply as the level of care they provide increases. For instance, workers providing intensive care are more likely than those providing light care to work part-time and to work in jobs that do not provide paid vacations. Intensive caregivers also average fewer work hours and earn lower wages than light caregivers. Among spouse helpers, in particular, those providing at least 1,000 hours of care average only 1,808 annual work hours and earn a median wage of only $14.70 per hour. In contrast, those providing between 50 and 249 hours of care average 1,978 annual work hours and earn a median wage of $17 per hour.

To summarize, we find that caregivers are less likely to work, are more likely to work part-time, and tend to work fewer hours than noncaregivers. The most striking observed employment differences are between male caregivers and noncaregivers (as opposed to females), personal caregivers and household helpers, intensive caregivers and light caregivers, and spouse caregivers and parent caregivers. Still, the differences are not as large as one might expect. For example, on average, parent caregivers who provide intensive care work only two-and-one-quarter weeks less per year than those who provide light care. Spouse caregivers who provide intensive care work four-and-one-quarter weeks less than those who provide light care (see table 10).

Multivariate Estimates of the Effect of Caregiving on Work

The descriptive analyses revealed some important differences between caregivers and noncaregivers in their labor supply and wages. In this section, we examine whether these differences remain after controlling for observable and unobservable factors by estimating fixed effects models on adults ages 51 to 70. We also estimated fixed effects labor supply models that included the instruments described earlier to correct for the endogeneity of caregiving; however, in none of those specifications could we reject the exogeneity of caregiving. This suggests that fixed effects models without instruments produce consistent estimates and are more efficient, so they remain our preferred specification.[9]

Generally, the strong negative relationship between caregiving and work observed in our descriptive results weakens once we control for observable and unobservable factors (Appendix tables A2 and A3). The relationship between caregiving and work is negative and strongly significant in simple ordinary least squares estimation, but diminishes considerably once we control for unobservable fixed individual effects.[10] This finding suggests that much of the

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[9] The two-stage fixed effects results are available from the authors upon request.
[10] The ordinary least squares results are available from the authors upon request.

observed negative correlation between caregiving and work is driven by unobservable individual-specific factors that likely impact both one's propensity to provide care and one's propensity to work. Once these unobservable factors are controlled for, the causal impact of caregiving on labor force participation and hours diminishes significantly. This result is consistent with findings in the existing literature examining parental caregiving and labor supply (Johnson and Lo Sasso 2006; Van Houtven et al. 2013). However, we find a similar result when we examine the relationship between spousal caregiving and labor supply.

In addition, the estimated coefficients on all other controls in the regression have the expected sign for both men and women, as previous literature has documented, and make economic sense. The probability of working drops significantly after reaching age 62 and then drops again after passing the full retirement age. It is higher for those whose spouse also works and it declines as non-earned income increases. Being a homeowner and having little wealth increase the likelihood of work for women, but not for men.

Table 11 shows estimates from fixed effects models of paid work and wages on parental caregiving by the type and intensity of care. As in the descriptive analyses, caregiving has a stronger impact on men's labor supply than it does on women's labor supply. Caregiving reduces men's likelihood of working 1.7 percentage points, but has no statistically significant impact on women's probably of working. Furthermore, it appears that personal care in particular drives men's labor supply decisions—reducing their likelihood of working 3.9 percentage points. Interestingly for women, only intensive care has a significant effect on their propensity to work. Women who provide intensive care are 3.4 percentage points less likely to work than those who provide light care.

Next we examine the relationship between parental caregiving and wages and hours, conditional on working. For the most part, the effects are even weaker. Caregiving has no impact on men's wages and only a small impact on women's wages. For example, women who are caregivers earn wages that are 2.3 percent lower than those who are not caregivers, but the coefficient is significant with only a 10 percent confidence level. Although caregiving is negatively associated with weekly and annual hours for men and women, the coefficients are not statistically significant from zero (Table 12).

Finally, table 13 presents results from fixed effects regressions of work, wages, and hours on caregiving for spouses. They show that spouse caregiving has a statistically significant effect only for men and only in terms of their decision to work. Married men who take care of their spouses are 2.9 percentage points less likely to work and those who provide intensive care are 9.9 percentage points less likely work than their counterparts. Conditional on working, however, men's wages and hours are not affected by caregiving. Finally, spousal caregiving has no statistically significant impact on women's labor supply—neither on their labor force participation nor on their wages and hours.

VII.   Caregiving and Financial Resources

As discussed earlier in the paper, caregivers might be at an economic disadvantage relative to noncaregivers. In this section, we examine the economic resources of adults ages 51 and older for differences by caregiving, including the type and intensity of caregiving.

How Do Economic Resources Compare Between Caregivers and Noncaregivers?

Among adults with surviving parents or parents-in-law, caregivers are slightly more likely than noncaregivers to be poor; however, they are just as likely as noncaregivers to have a working spouse and to be homeowners (table 14). They are also less likely than noncaregivers to have debt. Additionally, their non-wage income, total assets, and net total assets are higher at the mean and median than for noncaregivers. For example, the typical caregiver has net assets of $142,300 per person, while the typical noncaregiver has only $120,000. These differences are even larger and stronger when we control for having a parent in poor health—suggesting that well-off households are more likely to take care of their parents or parents-in-law than noncaregivers.

We find the opposite results for adults with surviving or recently deceased spouses. Spouse caregivers are significantly more likely than noncaregivers to be poor and significantly less likely than noncaregivers to be homeowners (table 15). Furthermore, the typical spouse caregiver has close to $15,000 less total household income per person ($19,200 versus $33,800) and $74,000 less net total assets ($74,700 versus $148,800) than the typical noncaregiver. Differences between caregivers and noncaregivers decline dramatically when we control for having a spouse in poor health. Nonetheless, spouse caregivers have less income and fewer assets than noncaregivers. For example, among those with spouses in poor health, the typical spouse caregiver has almost $3,000 less total household income per person ($18,800 versus $21,400) and $16,000 less net total assets ($60,400 versus $76,400) than the typical noncaregiver.

Do Economic Resources of Caregivers Vary by the Type of Care?

Among parent caregivers, those providing personal care are less well off than those providing only household help (table 16). Poverty rates are 8.3 percent for personal caregivers, compared with only 5.8 percent for household helpers. Only 58.4 percent of personal caregivers have a spouse who works and contributes income to the household, compared with 66.6 percent of household helpers. Finally, parent helpers have less income and fewer assets than household helpers. The typical parent caregiver has only $33,900 per person in total household income and $137,200 in net total assets. In contrast, the typical household helper has $39,700 per person in income and $145,400 in net assets.

How Do Economic Resources of Caregivers Vary by the Intensity of Care?

Caregivers are more economically disadvantaged the more care hours they contribute. Among parent caregivers, for example, poverty rates rise from 6.2 percent for those providing between 50 and 249 hours of care to 6.5 percent for those providing between 250 and 999 hours of care

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and 11 percent for those providing at least 1,000 hours of care (table 17). Additionally, only 61.2 percent of intensive care providers have a spouse who works and only 84.5 percent are homeowners, compared with 64.3 percent of light care providers whose spouses work and 87.2 percent who are homeowners. Income and assets also differ by the intensity of caregiving—with intensive caregivers having significantly less income and fewer assets than light caregivers. For the most part, these patterns are similar for spouse caregivers.

We take advantage of the longitudinal nature of the data and examine the change over time in assets and how the change differs for caregivers and noncaregivers (table 18). Our parent-care sample includes respondents 55 years old who are interviewed and have a surviving parent or parent-in-law for five consecutive waves (10 years). Our spouse-care sample includes respondents 65 years old who are interviewed and have a surviving or recently deceased spouse for five consecutive waves (10 years). Our analysis of spouse caregivers begins at age 65 instead of age 55 because the risk of providing spouse care increases with age, while the risk of providing parent care declines.

Similar to the previous results, typical parent caregivers have higher net assets than noncaregivers at most every age and personal caregivers have fewer assets than household helpers. Over the 10-year period, median assets increase only 29 percent for personal caregivers, compared with 52 percent for household helpers. In addition, parent caregivers experience less growth in their assets as they provide more years of care. For example, median assets increase 55 percent for those who provide only one wave of care and 50 percent for those who provide two waves of care, but only 27 percent for those who provide three waves of care and 6 percent for those who provide four or more waves of care. Among spouse caregivers, median assets increase 9 percent over the 10-year period for those who never provide care, but only 3 percent for those who do.

Multivariate Estimates of the Effect of Caregiving on Economic Resources

The descriptive analyses revealed differences between caregivers and noncaregivers in their economic resources. In this section, we examine whether these differences remain after controlling for observable and unobservable factors. We model level and percent changes in net wealth, as well as the probability of falling into poverty. Given the heavily right-skewed distribution of net worth and changes in net worth, we estimate median regression models instead of simple ordinary least squares specifications. In the asset models, we find no evidence that our caregiving measures are endogenous and so our preferred specifications are median regression models without instruments. In the poverty model, however, we cannot rule out the endogeneity of our caregiving measures, so our preferred specification is a two-stage linear probability model.

For each of these models, we follow respondents ages 51 and older for five consecutive waves (10 years) and examine how the level and percent changes in their assets over the period, as well as their poverty status at the end of the period, relate to their initial characteristics and the number of years spent providing care. To analyze parental caregiving, we require respondents to be present and to have a surviving parent or parent-in-law in all five waves. To analyze spousal

caregiving, we require respondents to be present and to have a surviving or recently deceased spouse in all five waves.

Appendix tables A4 and A5 show the full set of coefficients for the parent and spouse models, respectively. Consistent with intuition, having at least some college education, being white, and spending more time working during the period are all associated with an increase in assets (both level and percent) over time, while being in poor health or experiencing a decline in health are associated with a decline in assets. Table 19 shows the model coefficients for the caregiving variables. For parent caregivers, the coefficient estimates suggest that time spent caregiving is correlated with lower levels of wealth and smaller percent changes in wealth; however, most of the results are not statistically different from zero. The only statistically significant results suggest that each wave of parental caregiving reduces the percentage growth in assets 2.3 percent, and each wave of personal caregiving reduces it 4.6 percent.

For spouse caregivers, all the caregiving coefficient estimates are statistically significant.[11] In contrast to parental caregiving, each wave of intensive spousal care lowers wealth $9,200 and reduces the percentage growth in wealth 13.6 percent. Those who ever provide spouse care over the period have $11,900 or 11.6 percent less wealth 10 years later, while those who ever provide intensive care to their spouses have $19,100 or 24.8 percent less wealth.

Next we estimate a two-stage linear probability model of the likelihood of falling into poverty after 10 years. Appendix tables A6 and A7 show the full set of model coefficients for both the first and second stage estimates, the p-values of the first-stage F-test for the joint significance of the instruments, and the p-value of the test for endogeneity. In all the parent specifications, we reject the exogeneity of the caregiving measures with at least 95 percent confidence which leaves the instrumental variables model as our preferred specification. We use the same instruments described earlier, but modify them to reflect the number of waves that each criterion is met.[12] In all the spouse specifications, we also reject the test for exogeneity (with a 99 percent confidence). Our instruments reflect the number of waves the spouse had at least one, and the number of waves the spouse had at least two ADLs and IADLs.

Most of the controls in our model have the expected signs and are significant determinants of poverty. The likelihood of falling into poverty after 10 years is negatively associated with being married, having higher education, being white, and having worked more during the period. Being in poor health, having a child under 22, becoming widowed during the observation period, and being poor at the beginning of the spell, on the other hand, all increase the chances of being poor 10 years later.

Table 20 shows the model coefficients for the caregiving variables. For parent caregivers, we find that each additional wave spent providing any type of care increases the likelihood of falling into poverty 3 percentage points. Controlling for the type of care, we find that personal care

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[11] The spouse model also includes log of out-of-pocked medical expenditures as a regressor.

[12] Given that we have more instruments than endogenous variables, we also performed a test for over-identifying restrictions. We could not reject the null hypothesis, which increases our confidence in the validity of the instruments.

increases the likelihood of becoming poor 2.5 percentage points relative to never providing care, but that providing only household help has no impact. Intensive care has the largest impact on poverty, with each wave increasing the chances of falling into poverty 11.9 percentage points.

Respondents who provide care to their spouses are also more likely to be in poverty after 10 years, controlling for other factors. Each wave spent as a spouse caregiver increases one's chance of being poor at the end of the spell 2 percentage points, while each wave spent as an intensive caregiver increases it 5 percentage points. Finally, ever providing intensive spouse care increases the likelihood of falling into poverty 9.7 percentage points.

To summarize, we find that parent caregiving, particularly personal care, reduces the percent increase in wealth, while spouse caregiving reduces both the level and percent increase in wealth. We also find that both parent and spouse caregiving increase the likelihood of falling into poverty over time. Personal caregiving drives this effect, since household help is insignificant.

VIII.   Economic Costs

We measure the value of unpaid caregiving activities using an approach similar to the one used by Johnson and Schaner (2005). The authors estimated the worth of various unpaid activities by computing the total number of hours older Americans devote to them and assigning a value to each hour. We measure the total value of contributions using low-, moderate-, and high-cost assumptions. The low-cost scenario uses the minimum wage, the moderate-cost scenario uses the national average wage of home health aides, and the high-cost scenario uses the median wage observed among parent helpers and spouse helpers in our sample.

Our estimates suggest that adults ages 51 to 70 contributed between $62.9 and $160.2 billion of informal caregiving to society in 2010 (table 21). Parent care, which is more common, accounted for more than half the total value—$34.3 to $89.8 billion. Spouse care accounted for $28.6 to $61.6 billion.

Although older adults are more likely to care for parents than for spouses, parent helpers devote fewer hours on average to caregiving than spouse helpers. As a result, parent caregivers contributed $3,733 per person under our moderate-cost scenario to informal caregiving activities, while spouse caregivers contributed $13,973 per person. Overall, this translates to an average of $5,797 per person among older adults providing parent or spouse care.

IX.   Conclusions

Much of the current policy debate on retirement preparedness has focused on the economic cost of the aging population and the importance of encouraging work at older ages, while at the same time ignoring the significant unpaid activities undertaken by older Americans. The pressure for informal caregiving will likely intensify as the population ages in coming decades and caregiver burdens increase. Between 2015 and 2060, the size of the population ages 65 and older is projected to increase from 48 to 92 million, while the population ages 85 and older, which has the highest disability rate of any age group, is expected to increase from 6 to 18 million, rising from 2 to 4 percent of the total population (U.S. Census Bureau 2012).

The results of this study improve policymakers' understanding of how caregiving activities affect labor supply and economic resources. Using HRS data, we find that two in five adults over the age of 50 are at risk of having to someday take care of their elderly parents or parents-in-law. For one in five adults, the possibility is more imminent because their parents are already in poor health. In addition, 6 percent of married adults over the age of 50 are at risk of having to provide care to their spouses who are in poor health.

Among those at risk, 29 percent already provide parent care and 6.5 percent already provide spouse care. At some point over a 12-year period, however, we can expect 57 percent of adults with living parents or parents-in-law to take care of their parents or parents-in-law and 18 percent of married adults to take care of their spouses. Our most conservative estimates value the care that informal caregivers provide our society at $62.9 billion.

For the majority of adults, caregiving is a temporary situation, with around a third of parent caregivers and half of spouse caregivers providing care in only one wave. Among parent caregivers, personal care is less common and more temporary than household help. However, personal caregivers contribute much more time to caregiving and are more likely to provide intensive care than household helpers.

Although we find no evidence that caregiving affects the wages or hours of workers, we do find that it reduces the likelihood of working. Men who provide personal care to parents or intensive care to spouses are less likely to work, as are women who provide intensive care to parents. As a result, over time, caregivers have a significantly higher probability of becoming poor and also experience a smaller percentage growth in assets—particularly those who care for their spouses. Spousal caregiving most likely has a stronger impact on work and economic resources because the poor health of one spouse and the caregiving activity of the other spouse result in decreased work attachment for both members of the household. Parental caregiving, in contrast, typically reduces the labor supply of only one household member—the caregiver.

According to Block, Park, and Kang (2013), the United States ranks low among developed countries in policies that support family-work balance. Only about 60 percent of workers are covered under the Family Medical Leave Act (FMLA), and the majority of these workers do not receive paid leave (Klerman, Daley, and Pozniak 2014).[13] According to the 2012 FMLA survey, only about 9 percent of workers receive full pay during FMLA leave events, and another 26 percent receive partial pay. Lack of pay creates hardships for many families—about 62 percent

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[13] Enacted in 1993, the FMLA requires private employers with at least 50 workers to provide eligible employees with up to 12 weeks of unpaid job leave for medical and family purposes, such as personal or family illness, military service, family military leave, pregnancy, adoption, or the foster care placement of a child. To be eligible, employees must have worked for their employer for at least one year and at least 1,250 hours over the year prior to needing leave. In addition to the FMLA, several states, including California, Connecticut, District of Columbia, Hawaii, Maine, Massachusetts, Minnesota, New Jersey, Oregon, Rhode Island, Tennessee, Vermont, Washington and Wisconsin, have their own leave laws, which, like the FMLA, are often restricted to employers over a certain size (Han and Waldfogel 2003). Only three of these, California, New Jersey, and Rhode Island, mandate paid leave, and the amount paid is typically between half and two-thirds of the worker's normal pay rate (Jorgensen and Appelbaum 2014).

of all leave takers with partial or no pay reported some difficulty in making ends meet as a result of their leave, and almost half of those families reported serious difficulty. As a result, many of these families may have to draw down their savings to support their needs. Expanding FMLA coverage and increasing its generosity could help reduce these disparities and strengthen families, while at the same time provide important benefits to society.

Additionally, policy options such as Social Security caregiver credits could boost retirement incomes for those adults who take time out of the labor force to provide care for family members (Favreault 2010). Just this year, Rep. Nita Lowey [D-NY] introduced the Social Security Caregiver Credit Act of 2014. The proposed legislation modifies the Social Security benefit formula to credit individuals for each month, up to 5 years, they provide at least 80 hours of care to a dependent relative without monetary compensation. The current benefit formula only credits individuals for their time in paid work.

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Table 1. Percentage of Adults Ages 51 and Older

	w/ Surviving Parents	w/ Surviving Parents in Poor Health	Married	Married w/ Spouses in Poor Health
All	42.5	19.3	65.3	6.2
Age				
51-54	82.8	29.6	73.3	4.7
55-59	71.5	29.6	73.5	5.1
60-69	44.8	22.5	71.2	5.6
70+	7.3	5.4	52.0	8.7
Sex				
Male	49.2	21.5	77.7	7.0
Female	36.9	17.4	55.0	5.3
Race				
White	42.1	18.9	67.7	5.7
Black	40.1	18.1	45.6	9.1
Hispanic	48.6	24.3	63.8	9.1
Other	45.2	21.5	67.4	6.8
Education				
Less than high school	27.2	14.1	54.3	10.4
High school graduate	39.7	18.2	64.8	6.6
Some college	49.0	21.0	66.5	5.2
College graduate	53.8	23.4	74.7	4.0
Marital Status				
Not married	23.4	10.5	0.0	0.0
Married	52.6	23.9	100.0	6.7
Health				
Excellent/very good	50.2	21.4	71.4	4.2
Good	39.9	18.5	65.2	6.5
Fair/Poor	32.9	16.7	55.7	9.9
Income Quintile				
Bottom	28.6	14.7	49.4	12.1
Second	28.1	13.9	62.1	8.4
Third	40.1	19.1	68.4	6.4
Fourth	53.6	22.5	72.9	3.7
Top	62.2	26.1	74.0	2.4
Asset Quintile				
Bottom	37.9	17.6	45.4	11.5
Second	44.9	20.0	70.4	8.0
Third	44.0	19.1	71.6	5.6
Fourth	43.1	19.2	71.2	4.3
Top	42.4	20.3	67.9	3.4
Observations	140,125	140,125	140,125	140,125

Source: 1996-2010 waves of the Health and Retirement Study.

Notes: Sample includes adults ages 51 and older. Parents include both parents and parents-in-law. A parent or parent-in-law is considered in poor health if he or she needs assistance with personal activities, has a memory disease, or can not be left alone. Married includes those with surviving and recently deceased spouses. A spouse is considered in poor health if he or she has limitations with activities of daily living (ADLs).

Table 2. Percentage of Adults Ages 51 and Older Providing Parental Care

	All	w/ Surviving Parents	w/ Surviving Parents in Poor Health
All	12.3	29.0	36.4
Age			
51-54	23.3	28.1	38.0
55-59	20.7	28.9	38.6
60-69	13.5	30.2	36.0
70+	1.9	25.7	26.8
Sex			
Male	11.9	24.2	30.5
Female	12.6	34.2	42.5
Race			
White	12.4	29.5	37.2
Black	12.3	30.7	39.8
Hispanic	11.0	22.7	28.0
Other	11.3	24.9	30.2
Education			
Less than high school	5.8	21.2	26.0
High school graduate	11.8	29.8	37.1
Some college	15.5	31.6	40.4
College graduate	15.6	29.0	37.3
Marital Status			
Not married	8.8	37.6	45.4
Married	14.1	26.9	34.3
Health			
Excellent/very good	14.7	29.2	37.9
Good	11.8	29.7	36.2
Fair/Poor	9.0	27.3	33.6
Income Quintile			
Bottom	8.2	28.6	33.5
Second	8.6	30.5	36.1
Third	12.5	31.1	37.6
Fourth	14.9	27.7	36.4
Top	17.4	28.1	37.3
Asset Quintile			
Bottom	9.7	25.7	31.2
Second	12.1	27.0	34.2
Third	13.0	29.6	38.2
Fourth	13.1	30.5	39.0
Top	13.5	31.8	38.9
Observations	140,125	49,800	21,277

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Samples include adults ages 51 and older, those with surviving parents or parents-in-law, and those with surviving parents or parents-in-law in poor health--defined as needing assistance with personal activities, having a memory disease, or not being able to be left alone.

Table 3. Percentage of Adults Ages 51 and Older Providing Spouse Care

	All	Married	Married w/ Spouses in Poor Health
All	4.0	6.5	45.8
Age			
51-54	2.8	3.9	43.5
55-59	3.2	4.7	43.6
60-69	4.0	5.9	46.2
70+	5.1	10.3	47.3
Sex			
Male	4.4	6.0	43.2
Female	0.0	7.1	49.6
Race			
White	4.1	6.3	45.8
Black	3.8	8.9	48.2
Hispanic	4.3	7.1	42.8
Other	3.8	5.9	51.2
Education			
Less than high school	5.5	11.0	46.6
High school graduate	4.5	7.2	47.3
Some college	3.4	5.4	45.4
College graduate	2.8	3.8	41.8
Health			
Excellent/very good	3.2	4.6	44.7
Good	4.3	6.8	48.1
Fair/Poor	5.2	9.9	44.8
Income Quintile			
Bottom	6.4	13.9	49.0
Second	5.7	9.7	49.3
Third	4.0	6.1	44.9
Fourth	2.6	3.8	42.4
Top	1.5	1.9	31.1
Asset Quintile			
Bottom	5.1	12.0	47.0
Second	5.5	8.4	49.3
Third	4.2	6.1	45.1
Fourth	3.2	4.5	41.5
Top	2.4	3.4	41.4
Observations	140,125	81,786	6,209

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Sample includes adults ages 51 and older, those who are married (with a surviving or recently deceased spouse), and those who are married with a spouse in poor health-- defined as having limitations with activities of daily living (ADLs).

Table 4. Characteristics of Parents and Spouses among Adults Ages 51 and Older, by Caregiving

	All			w/ Parents or Spouses in Poor Health		
	Not Caregivers	Caregivers		Not Caregivers	Caregivers	
Parents						
Needs assistance with personal activities	38.6	25.3	***	79.1	76.4	***
Memory disease	28.0	16.5	***	57.5	50.1	***
Can't be left alone	39.7	35.0	***	49.0	49.5	***
Unmarried	83.9	73.4	***	82.2	77.3	***
Doesn't own a home	41.8	37.2	***	50.0	53.8	***
Financially better off than respondent	36.7	37.6	NS	36.1	34.1	*
Financially worse off than respondent	41.4	37.1	***	44.2	40.6	***
Lives with respondent	14.7	3.3	***	15.4	3.2	***
Lives with family	17.7	21.6	***	20.6	25.9	***
Lives in nursing home/ret. community	17.3	14.0	***	31.0	35.6	***
Lives within 10 miles of respondent	58.5	34.2	***	59.3	35.6	***
Gave $500 or more to respondent	12.9	7.4	***	12.5	6.1	***
Mean amount of gift	7,112	6,216	NS	8,193	7,038	NS
Observations	14,086	35,714		7,432	13,845	
Spouses						
Health (%)						
Excellent/very good	7.9	50.0	***	4.4	11.7	***
Good	20.4	31.6	***	15.4	27.4	***
Fair/poor	71.7	18.4	***	80.2	61.0	***
ADLs						
Has ADL limitation (%)	47.0	3.9	***	100.0	100.0	
Number of ADLs	0.8	0.0	***	1.6	1.3	***
IADLs						
Has IADL limitation (%)	80.5	4.2	***	81.9	34.0	***
Number of IADLs	1.7	0.1	***	2.1	0.8	***
Observations	6,106	75,680		2,896	3,313	

Source: 1996-2010 waves of the Health and Retirement Study.

Notes: Parent-care sample includes adults ages 51 and older with surviving parents or parents-in-law. Spouse-care sample includes adults ages 51 and older with surviving or recently deceased spouses. A parent or parent-in-law is considered in poor health if he or she needs assistance with personal activities, has a memory disease, or cannot be left alone. A spouse is considered in poor health if he or she has limitations with activities of daily living (ADLs).

* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 5. Distribution of Adults Ages 51 and Older by the Number of Waves They Report Providing Care Between 1996 and 2010, by Sex

| | Parent Care | | | | | | Spouse Care | |
| | Any | | Personal Care | | Household Help Only | | | |
	Men	Women	Men	Women	Men	Women	Men	Women
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Never	48.3	37.3	74.3	59.1	58.2	53.4	83.8	79.5
Ever	51.7	62.7	25.7	40.9	41.8	46.6	16.3	20.5
Observations	2,437	2,428	2,437	2,428	2,437	2,428	1,169	1,069
# Waves								
1	39.2	31.3	68.4	58.2	49.4	45.3	44.3	58.5
2	24.0	24.0	21.7	25.7	23.8	23.6	27.6	21.3
3	16.2	18.0	6.3	11.1	12.8	15.9	6.2	9.1
4	9.6	11.9	2.3	2.7	8.7	7.8	9.2	3.6
5	7.0	7.1	1.0	1.2	3.3	3.9	6.5	4.7
6+	4.0	7.8	0.3	1.1	2.1	3.5	6.2	2.8
Mean	2.6	3.0	1.5	1.7	2.2	2.3	2.1	1.9
Observations	1,218	1,475	640	978	956	1,049	229	302

Source: 1996-2010 waves of the Health and Retirement Study.

Notes: Parent-care sample includes adults ages 51 and older with surviving parents or parents-in-law at the beginning of the period. Spouse-care sample includes adults ages 51 and older with surviving or recently deceased spouses at the beginning of the period. Respondents meeting these criteria in either the 1996, 1998, or 2000 waves and who were subsequently interviewed in every wave after for at least five consecutive waves are in this analysis. They represent 60 percent of those with surviving parents or parents-in-law and 68 percent of those with surviving or recently deceased spouses. Waves of caregiving are not necessarily consecutive. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation.

Table 6. Distribution of Care Hours and Average Annual Care Hours Provided by Caregivers Ages 51 and Older, by Sex

		Men						Women			
			Distribution of Care Hours						Distribution of Care Hours		
	Obs.	Total	50-249	250-999	1000+		Obs.	Total	50-249	250-999	1000+
Parent Care											
Percent		100.0	69.3	25.3	5.4			100.0	58.6	30.6	10.8
Mean hours	5,774	258	95	451	1,454		8,312	372	101	471	1,555
Personal care											
Percent		100.0	43.9	40.4	15.6			100.0	37.7	37.9	24.3
Mean hours	1,837	481	122	512	1,413		3,399	622	124	517	1,559
Household help only											
Percent		100.0	79.5	19.2	1.3			100.0	71.8	25.9	2.3
Mean hours	3,937	169	88	400	1,643		4,913	213	93	428	1,525
Spouse Care											
Percent		100.0	18.0	40.0	42.0			100.0	17.1	42.7	40.2
Mean hours	1,672	2,254	128	497	3,454		2,477	1,801	127	470	3,932

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Parent-care sample includes adults ages 51 and older who provide care to their parents or parents-in-law Spouse-care sample includes adults ages 51 and older who provide care to their surviving or recently deceased spouses. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation.

Table 7. Work, Hours, and Wages of Parent Caregivers and Noncaregivers among Adults Ages 51 to 70, by Sex

	Men			Women		
	Caregivers	Not Caregivers		Caregivers	Not Caregivers	
All						
Working (%)	67.0	71.9	***	59.4	61.3	***
Part-time (%)	21.1	17.9	***	37.8	35.2	***
Annual hours	2,124	2,190	***	1,774	1,823	***
Wage rate (median $)	21.9	22.8	NS	16.0	16.2	NS
Has vacation days (%)	48.6	53.4	***	50.9	54.0	***
Number vacation days	18.6	19.0	NS	18.8	18.7	NS
Has sick days (%)	29.4	33.7	***	35.6	36.6	NS
Number sick days	10.1	10.2	NS	9.2	10.1	*
Years of work	35.7	35.6	NS	28.4	26.9	***
Observations	5,333	17,384		7,902	15,760	
w/ Parents in Poor Health						
Working (%)	64.7	68.9	***	55.9	55.0	NS
Part-time (%)	21.6	19.8	NS	38.8	37.7	NS
Annual hours	2,102	2,149	*	1,781	1,782	NS
Wage rate (median $)	21.9	22.0	NS	15.8	16.3	*
Has vacation days (%)	48.0	49.7	NS	49.3	51.1	NS
Number vacation days	19.3	19.1	NS	19.7	19.6	NS
Has sick days (%)	30.2	32.0	NS	35.0	35.4	NS
Number sick days	10.3	9.6	NS	8.7	8.9	NS
Years of work	36.2	36.0	NS	28.3	26.5	***
Observations	2,644	6,246		4,174	5,883	

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Sample includes adults ages 51 to 70 with surviving parents or parents-in-law. A parent or parent-in-law is considered in poor health if he or she needs assistance with personal activities, has a memory disease, or cannot be left alone.
* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 8. Work, Hours, and Wages of Spouse Caregivers and Noncaregivers among Married Adults Ages 51 to 70, by Sex

	Men			Women		
	Caregivers	Not Caregivers		Caregivers	Not Caregivers	
All						
Working (%)	49.4	67.3	***	41.1	53.6	***
Part-time (%)	24.4	21.7	NS	36.4	41.6	***
Annual hours	2,014	2,126	***	1,755	1,724	NS
Wage rate (median $)	19.5	22.7	***	13.1	15.7	***
Has vacation days (%)	48.6	50.0	NS	51.4	48.7	NS
Number vacation days	19.5	18.8	NS	15.4	18.5	***
Has sick days (%)	31.5	32.3	NS	32.4	33.8	NS
Number sick days	7.7	9.7	***	7.4	9.1	***
Years of work	36.0	37.3	***	26.1	27.5	***
Observations	1,478	26,185		1,802	26,544	
w/ Spouses with ADL Limitations						
Working (%)	47.1	56.5	***	41.3	47.7	**
Part-time (%)	24.8	22.3	NS	37.9	33.9	NS
Annual hours	1997	2074	NS	1787	1819	NS
Wage rate (median $)	17.0	16.9	NS	12.7	13.3	NS
Has vacation days (%)	50.6	50.7	NS	50.5	52.9	NS
Number vacation days	20.2	14.8	**	15.9	18.2	NS
Has sick days (%)	35.8	29.0	**	29.5	31.9	NS
Number sick days	8.2	9.1	NS	7.4	9.9	NS
Years of work	34.9	36.0	**	25.5	26.1	NS
Observations	815	1,068		782	786	

Source: 1996-2010 waves of the Health and Retirement Study.

Notes: Sample includes adults ages 51 to 70 with surviving or recently deceased spouses. We distinguish between respondents married to healthy spouses and those whose spouses have difficulties with activities of daily living (ADLs).

* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 9. Work, Hours, and Wages of Parent Caregivers Ages 51 to 70, by Type of Care

	Personal Care	Household Help Only	
Working (%)	55.5	66.4	***
Part-time (%)	31.6	29.3	**
Annual hours	1,898	1,955	***
Wage rate (median $)	17.0	19.0	***
Has vacation days (%)	50.5	49.5	NS
Number vacation days	18.6	18.8	NS
Has sick days (%)	32.9	32.6	NS
Number sick days	9.4	9.7	NS
Years of work	30.9	32.0	***
Observations	**4,826**	**8,409**	

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Sample includes adults ages 51 to 70 who provide care to their parents or parents-in-law. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation.
* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 10. Work, Hours, and Wages of Caregivers Ages 51 to 70, by Annual Hours of Care

	Annual Hours of Care				
	50-249	250-999		1000+	
Parent Care					
Working (%)	65.7	59.6	***	50.3	***
Part-time (%)	28.7	31.6	**	36.5	***
Annual hours	1,953	1,920	NS	1,862	**
Wage rate (median $)	19.4	16.9	NS	16.0	NS
Has vacation days (%)	50.7	48.8	NS	45.4	**
Number vacation days	19.4	16.9	***	19.5	NS
Has sick days (%)	33.0	32.0	NS	32.7	NS
Number sick days	9.3	10.5	NS	9.0	NS
Years of work	31.9	31.5	*	29.5	***
Observations	8,347	3,770		1,118	
Spouse Care					
Working (%)	56.1	48.6	***	35.3	***
Part-time (%)	25.7	31.8	*	34.5	**
Annual hours	1,978	1,863	*	1,808	**
Wage rate (median $)	17.0	16.1	NS	14.7	***
Has vacation days (%)	49.1	50.0	NS	41.3	*
Number vacation days	19.0	17.9	NS	19.9	NS
Has sick days (%)	33.3	32.3	NS	29.5	NS
Number sick days	7.0	7.4	NS	7.5	NS
Years of work	32.1	31.7	NS	29.5	***
Observations	475	1,006		993	

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Parent-care sample includes adults ages 51 to 70 who provide care to their parents or parents-in-law. Spouse-care sample includes adults ages 51 to 70 who provide care to their surviving or recently deceased spouses. Significance tests are computed relative to the 50-249 hours group.
* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 11. Fixed Effects Model of Work and Log Wages on Parent Caregiving, by Sex

	Dependent Variable=Work				Dependent Variable=Log Wage			
Men								
Caregiver (any type)	-0.017**				0.027			
	[0.008]				[0.020]			
Household helper only		0.001				0.024		
		[0.008]				[0.019]		
Personal caregiver			-0.039***				0.014	
			[0.012]				[0.031]	
Intense caregiver				0.021				0.028
				[0.030]				[0.134]
R^2	0.174	0.174	0.174	0.174	0.030	0.029	0.029	0.029
Observations	21,313	21,313	21,313	21,313	12,918	12,918	12,918	12,918
Women								
Caregiver (any type)	-0.007				-0.023*			
	[0.008]				[0.013]			
Household helper only		0.003				-0.018		
		[0.009]				[0.014]		
Personal caregiver			-0.016				-0.012	
			[0.010]				[0.019]	
Intense caregiver				-0.034**				-0.050
				[0.017]				[0.039]
R^2	0.148	0.148	0.148	0.148	0.038	0.038	0.038	0.038
Observations	20,360	20,360	20,360	20,360	12,171	12,171	12,171	12,171

Sources: Authors' calculations based on 1996-2010 HRS data.
Notes: Sample includes adults ages 51 to 70 with surviving parents or parents-in-law. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation. Intense care is defined as 1,000 or more hours of care per year. Robust standard errors, clustered at the individual level. Regressions also include standard controls for demographic and economic characteristics (see Appendix table A-2 for these variables), as well as controls for year effects and state-year variation in the unemployment rate.
* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table 12. Fixed Effects Model of Weekly and Annual Hours on Parent Caregiving, by Sex

	Dependent Variable=Weekly Hours				Dependent Variable=Annual Hours			
Men								
Caregiver (any type)	-0.344				-23.219			
	[0.348]				[18.456]			
Household helper only		-0.327				-25.035		
		[0.351]				[18.409]		
Personal caregiver			-0.149				-3.582	
			[0.585]				[31.253]	
Intense caregiver				-0.243				-5.439
				[1.376]				[72.692]
R²	0.115	0.123	0.123	0.123	0.123	0.123	0.123	0.123
Observations	14,419	14,419	14,419	14,419	14,182	14,182	14,182	14,182
Women								
Caregiver (any type)	-0.254				-25.626			
	[0.314]				[17.014]			
Household helper only		-0.028				-8.205		
		[0.333]				[17.702]		
Personal caregiver			-0.409				-32.410	
			[0.421]				[22.381]	
Intense caregiver				-0.265				-34.437
				[1.032]				[54.999]
R²	0.076	0.076	0.076	0.076	0.074	0.074	0.074	0.074
Observations	12,535	12,535	12,535	12,535	12,318	12,318	12,318	12,318

Sources: Authors' calculations based on 1996-2010 HRS data.
Notes: Sample includes adults ages 51 to 70 with surviving parents or parents-in-law. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation. Intense care is defined as 1,000 or more hours of care per year. Robust standard errors, clustered at the individual level. Regressions also include standard controls for demographic and economic characteristics (see Appendix table A-2 for these variables), as well as controls for year effects and state-year variation in the unemployment rate.
* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table 13. Fixed Effects Models of Work, Log Wage, and Hours on Spouse Caregiving, by Sex

	Dependent Variable=Work		Dependent Variable=Log Wage		Dependent Variable=Weekly Hours		Dependent Variable=Annual Hours	
Men								
Caregiver (any type)	-0.029*		0.0526		-0.300		-34.744	
	[0.015]		[1.61]		[0.733]		[39.480]	
Intense caregiver		-0.099***		0.0621		0.546		38.023
		[0.026]		[1.17]		[1.044]		[56.660]
R^2	0.169	0.170	0.0386	0.0385	0.131	0.131	0.139	0.139
Observations	24,949	24,949	13814	13814	15,123	15,123	14,905	14,905
Women								
Caregiver (any type)	-0.004		0.0166		-0.017		9.984	
	[0.015]		[0.51]		[0.679]		[35.949]	
Intense caregiver		-0.020		0.0471		0.044		3.649
		[0.021]		[0.83]		[1.204]		[62.511]
R^2	0.148	0.148	0.0485	0.0486	0.087	0.087	0.090	0.090
Observations	21,356	21,356	11796	11796	10,931	10,931	10,931	10,931

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Sample includes adults ages 51 to 70 with surviving or recently deceased spouses. Intense care is defined as 1,000 or more hours of care per year. Robust standard errors, clustered at the individual level. Regressions also include standard controls for demographic and economic characteristics (see Appendix table A-3 for these variables), as well as controls for year effects and state-year variation in the unemployment rate.

* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table 14. Economic Resources of Parent Caregivers and Noncaregivers among Adults Ages 51 and Older

	All			w/ Parents in Poor Health		
	Caregivers	Not Caregivers		Caregivers	Not Caregivers	
Percent						
Poor	6.7	6.1	**	6.7	6.8	NS
Spouse works	63.8	64.1	NS	60.4	57.8	***
Homeowner	86.2	85.9	NS	86.6	85.3	***
Has debt	65.5	68.7	***	63.9	65.4	**
Has assets	98.3	97.9	***	98.4	97.4	***
Mean Income/Assets (thousands $)						
Non-wage household income	30.2	23.8	***	36.2	26.8	**
Total household income	59.8	57.0	NS	64.0	54.8	**
Total assets	363.2	327.3	***	385.3	334.6	***
Total debt	39.4	40.6	NS	39.8	36.8	***
Net total assets	323.8	286.6	***	345.4	297.8	***
Median Income/Assets (thousands $)						
Non-wage household income	10.7	9.2	***	12.1	11.3	***
Total household income	37.9	39.8	NS	36.9	36.1	***
Total assets	180.7	160.3	***	185.6	158.5	***
Total debt	9.5	13.6	***	8.4	9.5	*
Net total assets	142.3	120.9	***	144.7	123.5	***
Observations	14,086	35,714		7,432	13,845	

Source: 1996-2010 waves of the Health and Retirement Study.

Notes: Sample includes adults ages 51 and older with surviving parents or parents-in-law. A parent or parent-in-law is considered in poor health if he or she needs assistance with personal activities, has a memory disease, or cannot be left alone.

* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 15. Economic Resources of Spouse Caregivers and Noncaregivers among Married Adults Ages 51 and Older

	All			w/ Spouses with ADL Limitations		
	Caregivers	Not Caregivers		Caregivers	Not Caregivers	
Percent						
Poor	7.4	3.3	***	7.8	7.5	NS
Homeowner	83.5	91.1	***	82.1	84.3	**
Has debt	49.4	60.0	***	53.2	54.0	NS
Has assets	97.4	99.2	***	96.7	97.4	NS
Mean Income/Assets (thousands $)						
Non-wage household income	22.3	26.4	***	18.6	19.7	*
Total household income	29.7	50.8	***	25.6	30.7	***
Total assets	207.6	350.7	***	180.1	214.9	***
Total debt	17.4	31.8	***	17.7	20.4	**
Net total assets	190.2	318.9	***	162.4	194.4	***
Median Income/Assets (thousands $)						
Non-wage household income	13.7	14.6	***	13.4	12.8	NS
Total household income	19.2	33.8	***	18.8	21.4	NS
Total assets	92.3	179.8	***	80.0	100.0	NS
Total debt	0.0	4.8	***	0.5	0.7	NS
Net total assets	74.7	148.8	***	60.4	76.4	NS
Observations	6,106	75,680		2,896	3,313	

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Sample includes adults ages 51 and older with surviving or recently deceased spouses. We distinguish between respondents married to healthy spouses and those whose spouses have difficulties with activities of daily living (ADLs).
* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 16. Economic Resources of Parent Caregivers Ages 51 and Older, by Type of Care

	Personal Care	Household Help Only	
Percent			
Poor	8.3	5.8	***
Spouse works	58.4	66.6	***
Homeowner	85.5	86.6	*
Has debt	62.1	67.3	***
Has assets	97.8	98.6	***
Mean Income/Assets (thousands $)			
Non-wage household income	26.2	32.3	*
Total household income	51.9	63.9	***
Total assets	340.5	375.0	**
Total debt	38.1	40.1	NS
Net total assets	302.4	334.9	**
Median Income/Assets (thousands $)			
Non-wage household income	11.4	10.4	***
Total household income	33.9	39.7	***
Total assets	168.2	188.1	***
Total debt	5.6	11.8	***
Net total assets	137.2	145.4	***
Observations	5,236	8,850	

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Sample includes adults ages 51 and older who provide care to their parents or parents-in-law. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation.
* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 17. Economic Resources of Caregivers Ages 51 and Older, by Annual Hours of Care

	Parent Care					Spouse Care				
	50-249	250-999		1000+		50-249	250-999		1000+	
Percent										
Poor	6.2	6.5	NS	11.0	***	6.5	6.3	NS	9.1	**
Spouse works	64.3	63.2	NS	61.2	*					
Homeowner	87.2	84.4	***	84.5	**	83.2	84.7	NS	81.6	NS
Has debt	67.2	63.6	***	59.4	***	58.5	50.7	***	45.6	***
Has assets	98.5	98.1	*	97.2	***	98.4	97.9	NS	96.3	***
Mean Income/Assets (thousands $)										
Non-wage household income	31.5	27.6	NS	29.1	NS	27.8	19.5	NS	20.5	NS
Total household income	62.6	55.7	*	51.8	*	39.3	27.7	*	25.2	**
Total assets	357.3	389.0	NS	320.5	**	240.6	229.7	NS	175.1	***
Total debt	39.8	39.3	NS	37.0	NS	19.3	17.8	NS	14.6	***
Net total assets	317.6	349.7	NS	283.6	**	221.3	211.9	NS	160.5	***
Median Income/Assets (thousands $)										
Non-wage household income	10.2	12.0	***	10.8	NS	12.5	13.9	NS	14.1	NS
Total household income	39.6	35.8	***	31.8	***	22.0	20.5	**	16.9	***
Total assets	184.9	176.4	NS	164.4	NS	99.0	103.1	NS	81.7	***
Total debt	11.9	7.1	**	3.0	***	1.5	0.1	***	0.0	***
Net total assets	143.4	141.2	NS	137.2	NS	73.7	83.0	NS	62.8	***
Observations	8,868	4,021		1,197		762	1,881		2,088	

Source: 1996-2010 waves of the Health and Retirement Study.

Notes: Parent-care sample includes adults ages 51 and older who provide care to their parents or parents-in-law. Spouse-care sample includes adults ages 51 and older who provide care to their surviving or recently deceased spouses. Significance tests are computed relative to the 50-249 hours group.

* .05 < p < .10; ** .01 < p < .05; *** p < .01   NS = not significant

Table 18. Median Net Assets of Caregivers and Noncaregivers Among Adults Ages 51 and Older (thousands $), by Type of Care

Age		Parent Care					
	Never Any Care	Ever Personal Care	Ever Household Help Only	1 Wave Any Care	2 Waves Any Care	3 Waves Any Care	4+ Waves Any Care
55	113.3	136.3	163.6	136.1	168.7	139.7	154.2
57	118.9	143.7	172.1	154.9	181.0	147.6	143.7
59	152.1	142.0	173.6	165.4	184.2	151.8	163.8
61	153.3	171.1	225.2	222.9	216.3	189.0	175.4
63	146.4	175.2	249.5	210.5	253.8	176.9	164.1
Change Age 55-63							
Dollars	33.1	38.9	85.9	74.3	85.2	37.1	9.9
Percent	29%	29%	52%	55%	50%	27%	6%

Age	Spouse Care	
	Never Any Care	Ever Any Care
65	205.6	78.8
67	208.6	98.3
69	222.8	93.2
71	225.6	91.0
73	223.6	81.4
Change Age 65-73		
Dollars	18.0	2.6
Percent	9%	3%

Source: 1996-2010 waves of the Health and Retirement Study.
Notes: Parent-care sample includes respondents 55 years old who are interviewed in 1996, 1998, 2000, or 2002 and have a surviving parent or parent-in-law for five consecutive waves (10 years). Spouse-care sample includes respondents 65 years old who are interviewed in 1996, 1998, 2000, or 2002 and have a surviving or recently deceased spouse for five consecutive waves (10 years). Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation. Waves of caregiving are not necessarily consecutive.

Table 19. Median Regression of Net Worth on Caregiving

	Dependent Variable=Change in Net Worth (thousands $)			Dependent Variable=Percent Change in Net Worth		
Parent Care						
# Waves as caregiver (any type)	-2.210			-2.317*		
	(1.952)			(1.337)		
# Waves as personal caregiver		-1.087			-4.637**	
		(3.633)			(2.354)	
# Waves as household helper only		-3.511			-1.621	
		(2.314)			(1.595)	
# Waves as intensive caregiver			2.765			-0.603
			(7.897)			(5.109)
Observations	3,553	3,553	3,553	3,497	3,497	3,497
Spouse Care						
# Waves as caregiver	-7.496***			-8.729***		
	(1.587)			(1.371)		
# Waves as intensive caregiver		-9.241***			-13.611***	
		(3.051)			(2.431)	
Ever caregiver			-11.941***			-11.621***
			(4.589)			(3.231)
Ever intensive caregiver			-19.131***			-24.849***
			(5.158)			(3.924)
Observations	9,554	9,554	9,554	9,494	9,494	9,494

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Parent-care sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving parents or parents-in-law for five consecutive waves (10 years). Spouse-care sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving or recently deceased spouses for five consecutive waves (10 years). Change in net worth is measured between the first and last observation periods. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation. Intense care is defined as 1,000 or more hours of care per year. Regressions also include standard controls for demographic and economic characteristics (see Appendix tables A-4 and A-5 for these variables), as well as controls for year effects. Standard errors are in brackets.

* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table 20. Two Stage Least Squares Model of the Probability of Falling into Poverty on Caregiving

Parent Care

# Waves as caregiver (any type)	0.030**		
	(0.012)		
# Waves as personal caregiver		0.025*	
		(0.014)	
# Waves as household helper only		0.049	
		(0.038)	
# Waves as intensive caregiver			0.119**
			(0.053)
Pseudo R^2	0.129	0.155	0.129
Observations	3,555	3,555	3,555
Spouse Care			
# Waves as a caregiver	0.020***		
	(0.005)		
# Waves as intensive caregiver		0.050***	
		(0.014)	
Ever caregiver			-0.020
			(0.040)
Ever intensive caregiver			0.097***
			(0.037)
Pseudo R^2	0.091	0.087	0.082
Observations	9,554	9,554	9,554

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Parent-care sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving parents or parents-in-law for five consecutive waves (10 years). Spouse-care sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving or recently deceased spouses for five consecutive waves (10 years). Change in poverty is measured between the first and last observation periods. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation. Intense care is defined as 1,000 or more hours of care per year. Regressions also include standard controls for demographic and economic characteristics (see Appendix tables A-6 and A-7 for these variables), as well as controls for year effects. Standard errors are in brackets.

* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table 21. Value of Caregiving Activities Among Adults Age 51 to 70 in 2010, Using Different Cost Assumptions (in billions of dollars)

	Low Cost	Moderate Cost	High Cost
Total Value of Unpaid Activities			
All	62.9	90.8	160.2
Parent care	34.3	49.4	89.8
Spouse care	28.6	41.3	61.6
Per Capita Value of Unpaid Activities			
All	4,018	5,797	10,231
Parent care	2,587	3,733	6,781
Spouse care	9,685	13,973	20,839

Source: Authors' calculations based on 2010 HRS data.
Notes: Parent care is based on respondents ages 51 to 70 who provide care to their parents or parents-in-law. Spouse care is based respondents ages 51 to 70 who provide care to their surviving or recently deceased spouses.

Table A1. Person-Year Counts of Adults Ages 51 and Older

	Parent-Care Sample	Spouse-Care Sample
Total	**49,800**	**81,786**
Caregivers	**14,086**	**6,106**
Personal caregivers	5,236	
Household help only caregivers	8,850	
Noncaregivers	**35,714**	**75,680**

Source: 1996-2010 waves of the Health and Retirement Study.

Notes: Parent-care sample includes adults ages 51 and older with surviving parents or parents-in-law. Spouse-care sample includes adults ages 51 and older with surviving or recently deceased spouses. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation.

Table A2. Fixed Effects Model of Work and Log Wage on Parent Caregiving, by Sex

	Men		Women	
	Work	Log(wage)	Work	Log(wage)
Age	0.031	-0.018	0.066***	0.084**
	[0.021]	[0.051]	[0.024]	[0.039]
Age squared	-0.000	0.000	-0.001***	-0.001**
	[0.000]	[0.000]	[0.000]	[0.000]
EEA_FRA	-0.077***		-0.054***	
	[0.011]		[0.012]	
Over FRA	-0.092***		-0.062***	
	[0.020]		[0.022]	
Married	-0.051**	0.070	-0.085***	0.020
	[0.025]	[0.046]	[0.023]	[0.032]
Poor health	-0.085***	0.003	-0.061***	0.037
	[0.012]	[0.026]	[0.013]	[0.031]
Good health	-0.004	-0.001	0.002	-0.014
	[0.008]	[0.020]	[0.009]	[0.016]
Homeowner	0.007		0.044**	
	[0.018]		[0.020]	
2nd wealth quartile	-0.019		0.036*	
	[0.018]		[0.019]	
3rd wealth quartile	0.021		0.032**	
	[0.014]		[0.015]	
4th wealth quartile	0.016		0.017	
	[0.011]		[0.012]	
Child under 22	-0.014		-0.012	
	[0.011]		[0.014]	
Spouse works	0.084***		0.086***	
	[0.013]		[0.016]	
Spouse logearnings	0.002		0.003**	
	[0.001]		[0.001]	
Log(nonwage income)	-0.011***		-0.008***	
	[0.001]		[0.001]	
Experience		0.081***		0.019
		[0.025]		[0.023]
Experience squared		-0.000		-0.000
		[0.000]		[0.000]
Tenure		0.016***		0.021***
		[0.004]		[0.003]
Tenure squared		-0.000		-0.000*
		[0.000]		[0.000]
Salaried		0.033		0.062**
		[0.036]		[0.024]
Caregiver (any type)	-0.017**	0.027	-0.007	-0.023*
	[0.008]	[0.020]	[0.008]	[0.013]
R^2	0.174	0.030	0.148	0.038
Observations	21,313	12,918	20,360	12,171

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Sample includes adults ages 51 to 70 with surviving parents or parents-in-law. Robust standard errors, clustered at the individual level. Regressions also include controls for year effects and state-year variation in the unemployment rate.

* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table A3. Fixed Effects Model of Work and Log Wage on Spouse Caregiving, by Sex

	Men		Women	
	Work	Log(wage)	Work	Log(wage)
Age	0.017	-0.0136	0.013	0.0563*
	[0.018]	[-0.30]	[0.020]	[1.71]
Age squared	-0.000	0.0000867	-0.000	-0.000290
	[0.000]	[0.25]	[0.000]	[-1.25]
EEA_FRA	-0.101***		-0.080***	
	[0.010]		[0.011]	
Over FRA	-0.114***		-0.087***	
	[0.016]		[0.017]	
Poor health	-0.067***	0.0102	-0.060***	0.0370
	[0.011]	[0.44]	[0.012]	[1.28]
Good health	-0.001	-0.0116	-0.011	-0.0257*
	[0.007]	[-0.64]	[0.008]	[-1.84]
Homeowner	0.031		0.018	
	[0.019]		[0.023]	
2nd wealth quartile	0.006		0.014	
	[0.017]		[0.019]	
3rd wealth quartile	0.026*		0.019	
	[0.014]		[0.015]	
4th wealth quartile	0.026*		0.019	
	[0.014]		[0.015]	
Child under 22	-0.023**		0.001	
	[0.011]		[0.016]	
Log (nonwage income)	-0.012***		-0.005***	
	[0.001]		[0.001]	
Spouse retired	-0.073***		-0.059***	
	[0.008]		[0.009]	
Experience		0.0871***		0.0487
		[3.63]		[1.54]
Experience squared		-0.000425**		-0.000148
		[-2.48]		[-1.64]
Tenure		0.0162***		0.0179***
		[4.86]		[6.07]
Tenure squared		-0.0000783		-0.000129
		[-0.84]		[-1.28]
Salaried		0.0126		0.125***
		[0.42]		[5.54]
Caregiver (any type)	-0.029*	0.0526	-0.004	0.0166
	[0.015]	[1.61]	[0.015]	[0.51]
R^2	0.169	0.0386	0.148	0.0485
Observations	24,949	13,814	21,356	11,796

Sources: Authors' calculations based on 1996-2010 HRS data.
Notes: Sample includes adults ages 51 to 70 with surviving or recently deceased spouses.
Robust standard errors, clustered at the individual level. Regressions also include controls for
year effects and state-year variation in the unemployment rate.
* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table A4. Median Regression of Net Worth on Parental Caregiving

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ	Δ	Δ	%Δ	%Δ	%Δ
Female	-5.080	-4.435	-6.454	-6.027	-5.587	-6.164
	(6.726)	(6.853)	(6.730)	(4.854)	(4.738)	(4.950)
Age t_0	1.007	6.192	-3.357	16.276	15.990	16.983
	(34.556)	(34.607)	(34.327)	(24.089)	(23.356)	(23.931)
Age squared t_0	-0.013	-0.060	0.028	-0.158	-0.156	-0.163
	(0.305)	(0.306)	(0.303)	(0.213)	(0.206)	(0.211)
High school t_0	-1.018	-0.989	-0.018	10.678	11.553*	10.645
	(6.103)	(6.119)	(6.069)	(6.714)	(6.203)	(6.648)
Some college t_0	18.717**	20.341**	20.079**	16.108**	15.986**	15.017**
	(9.391)	(9.469)	(9.303)	(7.507)	(6.968)	(7.393)
College t_0	90.975***	94.236***	91.296***	31.935***	33.688***	30.662***
	(15.566)	(15.547)	(15.776)	(7.750)	(7.283)	(7.488)
White t_0	17.740***	17.198***	17.611***	22.378***	21.781***	23.492***
	(6.283)	(6.264)	(6.358)	(8.096)	(7.585)	(7.534)
Married t_0	-2.360	-1.904	-0.882	5.175	7.385	9.681
	(8.243)	(8.132)	(8.204)	(11.126)	(10.717)	(9.719)
Poor Health t0	-43.525***	-45.093***	-42.397***	-35.473***	-35.465***	-33.308***
	(8.974)	(9.202)	(9.268)	(6.702)	(6.482)	(6.992)
Good Health t_0	-30.592***	-31.854***	-31.316***	-12.554**	-12.348**	-13.194***
	(7.504)	(7.559)	(7.459)	(5.165)	(4.948)	(5.029)
Home owner t_0	9.763	9.432	9.566	2.750	5.333	3.904
	(6.428)	(6.438)	(6.483)	(17.826)	(15.650)	(16.332)
Children uder 22 t_0	-6.904	-7.139	-8.193	-6.743	-6.287	-7.120
	(6.055)	(6.140)	(6.175)	(4.704)	(4.596)	(4.699)
Household income t_0	4.572***	4.571***	4.569***	-0.253**	-0.271***	-0.263***
	(0.048)	(0.048)	(0.048)	(0.099)	(0.096)	(0.093)
# Waves worked b/n t_0 and t_1	0.967	0.956	1.463	4.105***	4.037***	4.578***
	(1.776)	(1.777)	(1.844)	(1.125)	(1.125)	(1.168)
Became widowed b/n t_0 and t_1	-13.518	-14.115	-13.590	-13.868	-15.403	-12.665
	(11.719)	(11.577)	(11.461)	(15.401)	(12.505)	(14.584)
Became divorced b/n t_0 and t_1	-7.861	-7.809	-10.658	-10.387	-4.777	-5.214
	(11.135)	(11.072)	(11.186)	(15.425)	(13.374)	(13.546)
Health declined b/n t_0 and t_1	-25.427***	-25.849***	-24.212***	-11.162**	-11.415***	-10.816**
	(6.698)	(6.820)	(6.795)	(4.569)	(4.378)	(4.501)
# Waves as caregiver (any type)	**-2.210**			**-2.317***		
	(1.952)			**(1.337)**		
# Waves as personal caregiver		**-1.087**			**-4.637***	
		(3.633)			**(2.354)**	
# Waves as household helper only		**-3.511**			**-1.621**	
		(2.314)			**(1.595)**	
# Waves as intensive caregiver			**2.765**			**-0.603**
			(7.897)			**(5.109)**
Observations	3,553	3,553	3,553	3,497	3,497	3,497

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving parents or parents-in-law for five consecutive waves (10 years). Change in net worth is measured between the first and last observation periods. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation. Intense care is defined as 1,000 or more hours of care per year. Regressions also include controls for year effects. Standard errors are in brackets.
* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table A5. Median Regression of Net Worth on Spousal Caregiving

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ	Δ	Δ	%Δ	%Δ	%Δ
Female	-1.242	-1.927	-1.339	-3.380	-3.700*	-2.637
	(3.488)	(3.545)	(3.480)	(2.098)	(2.049)	(2.031)
Age t_0	-6.154	-5.469	-6.399	-8.711***	-8.897***	-8.534***
	(4.361)	(4.277)	(4.173)	(2.253)	(2.221)	(2.170)
Age squared t_0	0.036	0.030	0.038	0.058***	0.059***	0.057***
	(0.034)	(0.033)	(0.033)	(0.017)	(0.017)	(0.017)
High school t_0	-4.337	-3.726	-4.843	4.432	4.644*	4.350
	(3.442)	(4.337)	(3.441)	(2.933)	(2.821)	(2.882)
Some college t_0	7.014	7.089	5.654	9.094**	8.579**	8.612**
	(5.484)	(6.782)	(5.458)	(3.541)	(3.462)	(3.419)
College t_0	75.399***	77.129***	75.269***	21.061***	21.268***	20.822***
	(9.732)	(13.742)	(9.529)	(3.301)	(3.202)	(3.212)
White t_0	9.629***	10.765***	9.514***	10.223**	10.524***	10.263**
	(3.592)	(3.700)	(3.538)	(3.985)	(3.978)	(4.071)
Poor Health t_0	-13.836***	-13.612**	-13.070***	-11.235***	-11.806***	-10.438***
	(4.952)	(5.780)	(4.851)	(3.309)	(3.295)	(3.233)
Good Health t_0	-9.984**	-10.332**	-10.110**	-2.523	-3.341	-2.510
	(4.278)	(4.468)	(4.232)	(2.348)	(2.336)	(2.330)
Home owner t_0	-0.683	0.430	-0.854	24.863***	25.143***	24.836***
	(3.327)	(3.978)	(3.254)	(6.996)	(7.048)	(6.323)
Children uder 22 t_0	-5.646	-5.912	-6.007	-0.343	-0.177	-0.402
	(3.966)	(4.057)	(3.968)	(3.107)	(3.034)	(3.068)
Household income t_0	4.588***	4.666**	4.585***	-0.085***	-0.101***	-0.090***
	(0.035)	(1.867)	(0.035)	(0.017)	(0.017)	(0.017)
# Waves worked b/n t_0 and t_1	2.272**	2.289*	2.491**	2.751***	2.858***	2.839***
	(1.032)	(1.192)	(1.016)	(0.608)	(0.593)	(0.595)
Health declined b/n t_0 and t_1	-15.921***	-16.759***	-15.103***	-7.080***	-7.177***	-6.774***
	(3.877)	(3.949)	(3.810)	(2.114)	(2.105)	(2.098)
Log (out-of-pocket medical expenditures b/n t_0 and t_1	-4.254***	-4.690***	-3.968***	-2.679**	-3.069***	-2.629**
	(1.411)	(1.546)	(1.386)	(1.072)	(1.152)	(1.059)
# Waves as a caregiver	**-7.496*****			**-8.729*****		
	(1.587)			**(1.371)**		
# Waves as intensive caregiver		**-9.241*****			**-13.611*****	
		(3.051)			**(2.431)**	
Ever caregiver			**-11.941*****			**-11.621*****
			(4.589)			**(3.231)**
Ever intensive caregiver			**-19.131*****			**-24.849*****
			(5.158)			**(3.924)**
Observations	9,554	9,554	9,554	9,494	9,494	9,494

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving or recently deceased spouses for five consecutive waves (10 years). Change in net worth is measured between the first and last observation periods. Intense care is defined as 1,000 or more hours of care per year. Regressions also include controls for year effects. Standard errors are in brackets.

* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table A6. Two Stage Least Squares Model of the Probability of Falling into Poverty on Parental Caregiving

	(1)		(2)			(3)	
	Second Stage	First Stage	Second stage	First Stage (years of personal care)	First Stage (years of household help)	Second Stage	First Stage
Female	-0.015*	0.349***	-0.017*	0.207***	0.142***	-0.012	0.059***
	(0.009)	(0.054)	(0.010)	(0.028)	(0.046)	(0.009)	(0.013)
Age t_0	0.046	-0.132	0.054	0.197	-0.329	0.057	-0.130
	(0.041)	(0.281)	(0.046)	(0.159)	(0.231)	(0.041)	(0.085)
Age squared t_0	-0.000	0.001	-0.001	-0.002	0.003	-0.001	0.001
	(0.000)	(0.002)	(0.000)	(0.001)	(0.002)	(0.000)	(0.001)
High school t_0	-0.082***	0.446***	-0.087***	0.135***	0.311***	-0.077***	0.069***
	(0.017)	(0.073)	(0.020)	(0.039)	(0.060)	(0.017)	(0.018)
Some college t_0	-0.098***	0.507***	-0.104***	0.169***	0.338***	-0.093***	0.078***
	(0.017)	(0.081)	(0.021)	(0.042)	(0.067)	(0.017)	(0.021)
College t_0	-0.085***	0.370***	-0.090***	0.101**	0.269***	-0.081***	0.057***
	(0.017)	(0.081)	(0.020)	(0.042)	(0.068)	(0.016)	(0.021)
White t_0	-0.030**	0.077	-0.032**	-0.036	0.113**	-0.026*	-0.008
	(0.014)	(0.067)	(0.015)	(0.038)	(0.056)	(0.014)	(0.020)
Married t_0	-0.048***	-0.292***	-0.044**	-0.094*	-0.198**	-0.045**	-0.104***
	(0.017)	(0.096)	(0.018)	(0.053)	(0.082)	(0.018)	(0.034)
Poor health t_0	0.046***	-0.058	0.048***	0.020	-0.078	0.046***	-0.011
	(0.015)	(0.084)	(0.016)	(0.046)	(0.069)	(0.015)	(0.023)
Good health t_0	0.005	0.090	0.006	0.079**	0.012	0.006	0.020
	(0.009)	(0.060)	(0.009)	(0.033)	(0.051)	(0.009)	(0.018)
Homeowner t_0	-0.021	0.161**	-0.023	0.038	0.123*	-0.017	0.007
	(0.015)	(0.077)	(0.016)	(0.042)	(0.066)	(0.015)	(0.023)
Children under 22 t_0	0.017*	-0.120**	0.019*	-0.016	-0.104**	0.012	0.006
	(0.009)	(0.052)	(0.010)	(0.027)	(0.044)	(0.009)	(0.013)
Household income t_0 (in \$10,000)	-0.000***	0.001	-0.000***	0.000	0.001	-0.000***	-0.000
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
# Waves worked b/n t_0 and t_1	-0.013***	-0.057***	-0.013***	-0.024***	-0.033***	-0.013***	-0.016***
	(0.002)	(0.015)	(0.003)	(0.008)	(0.013)	(0.002)	(0.004)
Became widowed b/n t_0 and t_1	0.139***	0.190	0.136***	0.071	0.119	0.137***	0.066
	(0.033)	(0.132)	(0.033)	(0.076)	(0.108)	(0.034)	(0.045)
Became divorced b/n t_0 and t_1	0.043	0.347**	0.038	0.063	0.284**	0.050*	0.031
	(0.028)	(0.140)	(0.031)	(0.079)	(0.115)	(0.028)	(0.047)

Table A6. Two Stage Least Squares Model of the Probability of Falling into Poverty on Parental Caregiving (continued)

	(1)		(2)			(3)	
	Second Stage	First Stage	Second stage	First Stage (years of personal care)	First Stage (years of household help)	Second Stage	First Stage
In poverty t_0	0.226***	-0.331***	0.230***	-0.135**	-0.196**	0.224***	-0.066**
	(0.034)	(0.111)	(0.035)	(0.061)	(0.092)	(0.033)	(0.031)
Health declined b/n t0 and t1	-0.004	-0.089*	-0.002	-0.008	-0.081*	-0.007	0.002
	(0.008)	(0.053)	(0.008)	(0.029)	(0.044)	(0.008)	(0.016)
# Waves parents sick		0.242***		0.219***	0.023		0.058***
		(0.020)		(0.014)	(0.015)		(0.007)
# Waves parents-in-law sick		0.080***		0.095***	-0.015		0.020***
		(0.020)		(0.013)	(0.016)		(0.006)
Mother widowed b/n t0 and t1		0.274***		-0.028	0.303***		0.001
		(0.080)		(0.043)	(0.068)		(0.023)
# Waves as caregiver (any type)	**0.030****						
	(0.012)						
# Waves as personal caregiver			**0.025***				
			(0.014)				
# Waves as household helper only			**0.049**				
			(0.038)				
# Waves as intensive caregiver						**0.119****	
						(0.053)	
F-test first stage	Prob > F = 0.0000		Prob > F = 0.0000			Prob > F = 0.0000	
	reject exog(1%)		**reject exog(5%)**			**reject exog(5%)**	
Observations	3,555	3,555	3,555	3,555	3,555	3,555	3,555

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving parents or parents-in-law for five consecutive waves (10 years). Change in poverty is measured between the first and last observation periods. Personal care includes providing assistance with personal activities such as dressing, feeding, and bathing. Household help includes providing assistance with household chores, errands, and transportation. Intense care is defined as 1,000 or more hours of care per year. Regressions also include controls for year effects. Standard errors are in brackets.

* .05 < p < .10; ** .01 < p < .05; *** p < .01

Table A7. Two Stage Least Squares Model of the Probability of Falling into Poverty on Spousal Caregiving

	(1)		(2)		(3)		
	Second Stage	First Stage	Second Stage	First Stage	Second Stage	First Stage (ever non-intensive caregiver)	First Stage (ever intensive caregiver)
Female	-0.005	-0.008	-0.005	-0.005	-0.005	0.014**	-0.005
	(0.004)	(0.011)	(0.004)	(0.006)	(0.004)	(0.006)	(0.004)
Age t_0	-0.014***	-0.013	-0.015***	0.006	-0.014***	-0.007	-0.005
	(0.004)	(0.014)	(0.004)	(0.008)	(0.004)	(0.006)	(0.006)
Age squared t_0	0.000***	0.000	0.000***	-0.000	0.000***	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
High school t_0	-0.041***	0.009	-0.041***	-0.002	-0.040***	0.005	-0.005
	(0.006)	(0.017)	(0.006)	(0.010)	(0.006)	(0.008)	(0.006)
Some college t_0	-0.042***	-0.001	-0.042***	0.007	-0.042***	-0.006	-0.003
	(0.007)	(0.018)	(0.007)	(0.011)	(0.007)	(0.009)	(0.007)
College t_0	-0.040***	-0.006	-0.040***	0.005	-0.040***	-0.013	-0.001
	(0.006)	(0.018)	(0.006)	(0.010)	(0.006)	(0.009)	(0.007)
White t_0	-0.039***	0.028	-0.038***	-0.004	-0.038***	0.010	0.001
	(0.009)	(0.018)	(0.009)	(0.012)	(0.009)	(0.009)	(0.007)
Poor health t_0	0.027***	-0.068***	0.027***	-0.021**	0.026***	-0.011	-0.007
	(0.007)	(0.018)	(0.007)	(0.010)	(0.007)	(0.009)	(0.007)
Good health t_0	0.004	-0.004	0.004	0.009	0.004	-0.004	0.006
	(0.004)	(0.013)	(0.004)	(0.007)	(0.004)	(0.006)	(0.005)
Homeowner t_0	-0.020**	0.001	-0.021**	0.021*	-0.021**	-0.021*	0.005
	(0.009)	(0.022)	(0.009)	(0.013)	(0.009)	(0.011)	(0.009)
Children under 22 t_0	0.013**	-0.012	0.013**	-0.008	0.013**	0.002	-0.003
	(0.006)	(0.014)	(0.006)	(0.008)	(0.006)	(0.007)	(0.005)
Household income t_0 (in $10,000)	-0.000***	0.001*	-0.000***	-0.000	-0.000***	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
# Waves worked b/n t_0 and t_1	-0.006***	-0.003	-0.006***	-0.003*	-0.006***	-0.001	-0.002*
	(0.001)	(0.003)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)
In poverty t_0	0.172***	0.037	0.171***	0.019	0.171***	-0.001	0.009
	(0.023)	(0.041)	(0.023)	(0.026)	(0.023)	(0.019)	(0.014)

Table A7. Two Stage Least Squares Model of the Probability of Falling into Poverty on Spousal Caregiving (continued)

	(1)		(2)		(3)		
	Second Stage	First Stage	Second Stage	First Stage	Second Stage	First Stage (ever non-intensive caregiver)	First Stage (ever intensive caregiver)
Log (out-of-pocket medical expenditures b/n t_0 and t_1	-0.012***	0.014**	-0.012***	0.006	-0.012***	0.006*	0.006**
	(0.003)	(0.006)	(0.003)	(0.004)	(0.003)	(0.003)	(0.002)
Health declined b/n t_0 and t_1	0.002	-0.006	0.002	0.009	0.002	-0.005	0.003
	(0.004)	(0.011)	(0.004)	(0.006)	(0.004)	(0.006)	(0.004)
# Waves spouse has ADLs		0.205***		0.022***		0.091***	0.026***
		(0.017)		(0.008)		(0.007)	(0.005)
# Waves spouse has IADLs		0.299***		0.081***		0.093***	0.057***
		(0.024)		(0.013)		(0.010)	(0.008)
# Waves spouse has 2 or more ADLs		0.239***		0.170***		-0.033***	0.082***
		(0.029)		(0.020)		(0.011)	(0.010)
# Waves spouse has 2 or more IADLs		0.079*		0.160***		-0.105***	0.081***
		(0.045)		(0.030)		(0.016)	(0.016)
# Waves as a caregiver	**0.020***						
	(0.005)						
# Waves as intensive caregiver			**0.050***				
			(0.014)				
Ever caregiver					**-0.020**		
					(0.040)		
Ever intensive caregiver					**0.097***		
					(0.037)		
F-test first stage	Prob > F = 0.0000		Prob > F = 0.0000		Prob > F = 0.0000		
	reject exog(1%)		**reject exog(1%)**		**reject exog(1%)**		
Observations	9,554	9,554	9,554	9,554	9,554	9,554	9,554

Sources: Authors' calculations based on 1996-2010 HRS data.

Notes: Sample includes adults ages 51 and older who are interviewed in 1996, 1998, 2000, or 2002 and have surviving or recently deceased spouses for five consecutive waves (10 years). Change in poverty is measured between the first and last observation periods. Intense care is defined as 1,000 or more hours of care per year. Regressions also include controls for year effects. Standard errors are in brackets.

* .05 < p < .10; ** .01 < p < .05; *** p < .01