Women Working Longer:
Labor Market Implications of Providing Family Care*

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May 15, 2016

Preliminary and Incomplete

Introduction

The aging U.S. population brings with it a growing need for long-term care. This trend is exacerbated by increasing longevity; as individuals live longer, they face heightened risks of developing dementia and other disabilities that require long-term care. Formal long-term care is costly with nursing homes averaging approximately $90,000 per year, yet neither Medicare nor supplemental health insurance (Medigap) pays for this care. Although insurance products covering long-term care do exist, few Americans have such policies. As a result, the vast majority of long-term care is provided informally by family members. For married individuals, care is typically provided by a spouse, but for those who are unmarried, children (typically daughters) provide the vast majority of such assistance.

This caregiving can be an enormous burden on the caregiver—a burden measured not just in terms of the emotional stress and physical tasks borne by the caregiver, but very likely in the opportunity cost of the caregiver's time. Time spent caregiving may come at the expense of time in the labor force, the ability to invest in a career and experience wage growth, and the risk of reduced or lost retirement benefits. These labor market outcomes may lead the caregivers themselves to be far less prepared to finance their own retirement, and more dependent on families and public support than they would have been absent such caregiving experience.

On a macro level, the loss of skilled workers in the formal sector as (primarily) women invest in caring for a parent or spouse, will dampen the productivity of the economy. This effect is compounded with the aging of the baby boom generation, wherein the economy will be losing workers just at the time when the aging population is putting more stress on the Social Security and Medicare programs and the economy, in general, needs to retain individuals in the labor force. Conversely, informal care may free up potential paid caregivers to do other work, perhaps work requiring more medical / health care training. Understanding the decisions regarding the provision of care to family members can help to ensure that resources are allocated efficiently.

Not only is the demand for long-term care in the U.S. projected to increase sharply over the coming decades, but the burden on potential caregivers is also likely to increase. Coming generations of retirees will have fewer children than those that were responsible for the baby boom, so the burden of care will need to be shared by fewer siblings. In addition, daughters, who traditionally provided much of the care, are increasingly likely to have strong attachments to the labor force, meaning that they have fewer non-work hours to devote to caregiving and the

opportunity cost of care is likely to be greater. Finally, divorce rose throughout the 1970s meaning that the current generation of elderly might be less likely to have a spouse present so that even men, who traditionally relied on care from a spouse, may be unsupported in old age. Absent a spouse, children may again be called on to provide this care.

In the coming years, it is also likely that there will be changes in the Social Security and Medicare programs. These changes will require individuals to rely more on private savings and employer-provided pension plans to finance consumption during retirement. Caregiving obligations that impact employment will thus have important effects on well-being in retirement. Understanding decisions regarding caregiving, and the mechanisms that might alter these decisions, is thus paramount to understanding how coming generations, particularly generations of women, may be better prepared for retirement.

In this paper, we examine the relationship between caregiving and work. We use 10 waves of data from the Health and Retirement Study (HRS), spanning approximately 18 years, to examine the labor force behavior of women who provide care. We examine both care for an elderly parent or parent-in-law and care for a spouse. However, because our focus is on caregiving and work, we tend to view parent care as the more relevant issue. Women in their 50s are far more likely to be providing care for an elderly parent than for a spouse who is likely to be only a few years older and thus still in good health. Similarly, because spouses will share a home, the cost of providing care is likely to be far less than that of assisting a parent. Finally, caregiving for a spouse may have a positive effect on labor force participation if a woman needs to return to work or remain employed to secure health insurance coverage and to provide for herself and possibly her spouse as well.

We focus our study on women in the HRS who are first observed during their prime working years and follow them over the survey period. We use three cohorts for the HRS, and depending on the specific cohort, we can follow women for anywhere from 6 to 18 years. We find that approximately one-third of the women in our sample provided care for an elderly parent, parent-in-law, or spouse at some point during the window of observation, with the majority of this care being for parents. Caregiving for a spouse does not begin to dominate parental until women are in their mid-70s at which point there are few parents alive and many fewer women are participating in the labor force. Although our data end at this point, we expect that as our sample

ages further into the 80s, spousal caregiving will become more common.[1] Despite the high prevalence of caregiving, we find only small changes in labor force participation and hours worked, although we do see declines in earnings coincident with care.

Our paper is organized as follows. The first section provides some background information on the role of informal care in the United States, and Section 2 describes our data in detail. In Section 3, we illustrate patterns of caregiving over time, looking at both departures from the labor force as well as reductions in hours, and then at the potential return / increase in hours following care. Section 4 provides an analysis of labor market behavior as a function of caregiving using OLS, 2SLS, and fixed effects analyses. A final section concludes and offers avenues for future work.

I. Background

The need for long term care is already pervasive, and the demand is expected to increase sharply with the aging of the population. It is estimated that 69 percent of elderly individuals will need help with the Activities of Daily Living (ADLs) at some point.[2] Of these, one-fifth will require sustained assistance over a period of five or more years (Kemper et al., 2006). For the vast majority of individuals, this care will come from family members, primarily from daughters and wives. Among those in the community receiving help with ADLs, 66 percent receive help exclusively from family members, 26 percent receive assistance from both family (informal) and paid (formal) care providers, and just 9 percent rely only on formal care (Doty, 2010).[3] This reliance on informal care means that family members shoulder much of the burden. According to estimates from the AARP Public Policy Institute, in 2009, 42.1 million family members provided care at any given point in 2009, while a significantly greater number of individuals—61.6 million—provided care at some point over the course of the year (O'Shaughnessy, 2014), indicating that a large fraction of this care may be temporary.

The economic value of this care is immense. Reinhard, Houser, and Choula (2011) estimate that the value of informal care in 2009 exceeded $450 billion. This figure is more than twice the

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[1] If we examine parental caregiving for the oldest HRS cohort, referred to as the AHEAD cohort, we find that just 0.55 percent of respondents are observed to provide any care to parents or in-laws over the nine waves of data we employ.

[2] The activities of daily living (ADLs) include basic tasks such as bathing, eating, dressing, and toileting.

[3] While some individuals prefer care from family members, a similar fraction would prefer professional care (Brown, et al., 2012).

estimated value of formal care and is equivalent to approximately 19 percent of national health care expenditures (O'Shaughnessy, 2014).[4] Thus, while there is great concern about the level and growth of health care expenditure in the United States, in ignoring the economic value of informal care, our official statistics are missing an important component of the true cost, and thus underestimating the economic impact of health care costs for the elderly. Furthermore, because these imputations are calculated by simply multiplying the hours of care provided by an hourly wage, we also likely underestimate the true economic cost borne by the caregivers if lost earnings or declines in earnings growth exceed the inferred wage.

The National Association of Insurance Companies / American Council of Life Insurers reports that 10 percent of caregivers cut back on hours worked because of the demands of caregiving. This reduction would likely entail not just lost wages, but perhaps the loss of benefits like health insurance and / or a decline in wage growth. In addition, an estimated 6 percent of caregivers left paid work entirely, again losing benefits as well as likely taking a hit to wages should they return to the labor force after a spell of caregiving. Seventeen percent of caregivers take a leave of absence, which again has the potential for lost benefits, foregone earnings, and reduced wage growth and promotion potential. Finally, 4 percent turn down promotions, directly reducing wage growth in the near term and perhaps future opportunities for promotions as well. This latter figure is suggestive of a broader phenomenon in which caregivers invest less intensively in a job because of other responsibilities. They may do so in less obvious ways than by turning down promotions, such as by not volunteering for important / high visibility assignments, not putting in overtime to ensure that projects are done in a timely manner, or simply not accepting extra responsibility in the anticipation of greater wage increases in the future.

Complete departures from the labor force are relatively easily documented, and many researchers have examined labor market responses on this extensive margin (Ettner, 1996; Heitmueller, 2007; Lo Sasso 2006; Bolin et al., 2008; Carmichael, et al, 2010; Van Houtven et al. 2013). It is far more difficult to measure a reduction in effort on the job, or even often a reduction in hours. When examining both the intensive and extensive margin, Johnson and Lo Sasso (2006) find that those women who provide care to an elderly parent reduce hours of work by

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[4] According to the National Health Policy Forum (O'Shaughnessy, 2014), Americans spent $219 billion on paid long-term care for the elderly in 2012. In that year, this expenditure represented 9.3 percent of all U.S. personal health care spending. The value of informal care is not included in these figures.

approximately 40 percent. With such sizable reductions can come a loss of benefits on the job—particularly health insurance and / or pension contributions, and a loss of wage growth. A loss of benefits likely has implications for financial security in old age. Because the burden of care is borne primarily by women, these losses could help explain the much higher poverty rates for older women relative to men.

II. Data

Our data come from the Health and Retirement Study (HRS). The HRS is a panel study that is approximately representative of the United States population ages 51 or older and their spouses or partners. The first cohort consists of those individuals born in 1931-1942 who were first interviewed in 1992 and have been interviewed biennially thereafter. In 1998, three additional cohorts consisting of older and younger groups were added to the study to make the sample approximately representative of the target population. Refresher cohorts were added in 2004 and 2010 to fill in the population ages 51-56 as respondents aged out of that bracket. The survey continues to interview all respondents biennially, until they die.

Because we are interested in the relationship between caregiving and work, we focus our attention on three "cohorts": members of the original HRS cohort who were 51-61 when first observed in 1992, those in the "War Babies" (WB) cohort who were 51-56 in 1998, and the "Early Baby Boomer" (EBB) cohort who were 51-56 in 2004. The two other cohorts, Asset and Health Dynamics of the Oldest Old (AHEAD) and "Children of the Depression Era" (CODA), were first observed when they were 70 years old or older and 68-74, respectively. Because spouses and partners of HRS respondents are interviewed, regardless of age, there are individuals younger than 51 in the survey (as well as those older than 61 (or 56) when first observed. We include these individuals in our sample to maximize sample size.[5] With these three cohorts (and spouses or partners of age-eligible respondents) we have a total sample size of 71,975 person-wave observations for 11,343 women. This includes 7,221 women from the HRS cohort, 1,465 from the WB cohort, and 2,657 from the EBB cohort.

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[5] Individuals outside the target age range have zero person weights. We therefore use household weights in lieu of individual weights so we can include the younger women in the analysis. Our conclusions are similar when we use an unweighted sample. See http://hrsonline.isr.umich.edu/ for additional information on the HRS.

While using the three cohorts with different start dates means that our sample is unbalanced, it provides us with the greatest possible number of women in their prime working years. We note, however, that when looking at caregiving at older ages, we will have observations only from the original HRS cohort, as the WB and EBB respondents are 63-68 and 57-62, respectively, at the end of our window of observation.

Our central variable of interest is a measure of whether the respondent provided care. Caregiving in our sample is defined as an affirmative response to the question:

Did you (or your husband / wife / partner) spend a total of 100 or more hours (since the previous wave / in the last two years) helping your (parents / mother / father) with basic personal activities like dressing, eating and bathing?

The 1992 and 1994 interviews asked about assistance provided over the previous 12 months while later interviews asked about care in the time between waves or the previous two years.[6] Similarly, in all interview waves except 1994, respondents were asked to report caregiving that exceeded a total of 100 hours. In 1994, the cut-off point was 50 hours. We see an expected spike in the likelihood of caregiving in 1994 (not shown). We have not yet corrected the data for the difference in hours or the period of time covered by the question. While the question asks about total care for the respondent-couple, follow-up questions allow us to identify the hours provided by each individual.

We also look at care to a spouse. This care comes from a separate set of questions posed to the care recipient (i.e., the caregiver's spouse in our case):

[Let's think for a moment about the help you receive that we just talked about..... During the last month, on about how many days did [HELPER] help you?

This information was not collected in 1992 or 1994, and in those years we define caregiving solely as care for parents or parents-in-law. We note that while caregiving to parents / parents-in-law is measured as the total number of hours provided since the previous survey, care to spouses is measured as just the number of hours of care provided in the past month. For much of the analysis we focus on a 0/1 indicator of whether or not care is provided.[7]

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[6] The median time between interviews is two years, so the questions generally refer to caregiving over a period of approximately two years.

[7] Note that it is not possible to impute a useful value for the number of hours of spousal care as we do not know in what month the care began or whether the number of hours of care have varied over time.

The means of a set of demographic and economic variables for our sample are presented in Table 1 for a stacked sample of women from all three cohorts. Using one observation per individual, we show the means and standard errors for the sample as a whole and separately for those women who ever provided care during the sample period and those who did not.[8] The average age of our respondents is 54.6, 20 percent of the sample is non-white, and 9 percent is Hispanic. While 36 percent of the sample has just a high school education, 25 percent attended some college, and 21 percent have college degrees. With respect to the potential need to provide care, 64 percent are married, 55 percent have living parents, and 34 percent have living parents-in-law. The majority, 65 percent, are working when first observed, and the average annual earnings are $37,100 (all dollar denominated values in the paper are measured in 2010 dollars). Seventy-five percent of spouses are working, with average earnings of $68,300. Among the entire sample, 32 percent provide care to a parent or spouse at some point, but just 8.3 percent were providing care at the first interview. Parent care dominates with 24 percent providing care to a parent at some point while just 11 percent provide care to a spouse. However, care to a spouse is far more intensive, averaging 125 hours in the past month, compared to 755 hours spent caring for parents in the past 2 years. This could be in part a result of coresidence and thus the lower cost, on average, of care to spouses. For example, one might help a spouse bathe daily, but a parent only every other day. A spouse might receive help whenever he needs to walk across the room, but a parent manages on her own when her daughter is not present.

The differences by caregiving status in these demographic variables are small, but many are significantly different from zero. Caregivers are somewhat younger, and more likely to be white. Differences by education are not significantly different from zero. Perhaps surprisingly, caregivers are actually *more* likely to be working than non-caregivers, and conditional on working, work more hours. Caregivers also have higher earnings, but this difference is not significantly different from zero. The largest differences are, as anticipated, in the variables proxying the need to provide care: caregivers are substantially more likely to have a living parent or parent-in-law, and more likely to have a spouse than are non-caregivers.[9]

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[8] In Appendix table A1 we present the means of the variables in table 1 by cohort. Unsurprisingly, women in the original cohort are older on average given the wider age window in defining the sample. They also have lower household income and earnings, and are less likely to be working.

[9] An earlier version of this paper limited the sample to women with a living parent or parent-in-law. However, we are interested in the prevalence of caregiving among the population of women in their prime earning years so we include all women here to measure better the population impact.

The descriptive results in Table 1 appear to belie the standard economic intuition that the women who choose to care for a parent or parent-in-law would have a lower opportunity cost than the women who do not provide care. In terms of education, income, wealth, and baseline employment, these groups are statistically indistinguishable, and where differences exist, these indicate that caregivers have an advantage with respect to resources. A simple table of means is obviously not the end of the story, so a careful econometric analysis is still necessary. Yet the fact that negative selection is not apparent in any observable work-related differences is noteworthy. It is also apparent from Table 1 that selection is occurring on the basis of family composition (specifically, the presence of parents and parents-in-law). As these characteristics are plausibly orthogonal to labor force attachment except through their effect on caregiving, they represent a set of potential instruments for caregiving that we exploit in our regression analysis below.

The mean number of hours among those reporting caregiving to parents is 755 hours. The caregiving question asks about care since the previous interview, but not when the care began or ended. We thus do not know the period of time over which the hours were distributed. It could be over as much as two years, or simply over an intensive month wherein a parent, perhaps recovering from something like hip replacement surgery, required around-the-clock care. For those who report providing care in several waves, we can assume that the care was continuous when care was provided in both the proceeding and subsequent waves. If care is provided for two years, the burden is approximately 31 hours per month or close to 8 hours per week, a significant amount. If, however, it is shorter, for a period of say 6 months, then the amount is over 30 hours per week, a substantial burden in terms of time.

The mean number of hours for those providing care to a spouse is 125 per month. This corresponds to 30 hours per week, far more than care to parents. We note again that caregiving for a spouse may be less "costly" than caring for a parent since couples share a home and can readily assist with tasks such as dressing or bathing. Also, because of the way the question is worded, we know if wives provide help with ADLs and / or with IADLs,[10] but we cannot separate the number of hours on each for those providing both types of care. While we limit our definition of helpers

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[10] ADLs are activities of daily living and consist of dressing, bathing, toileting, getting in and out of bed, eating, and walking across a room. IADLs are instrumental activities of daily living and include tasks such as managing finances, driving (or using public transportation), shopping, preparing meals, using the telephone, managing medications, and help with housework.

to those providing help with ADLs, our measure of hours is biased upward because it includes both types of care.

III. Descriptive Analysis

The relationship between caregiving and work, and the impact on lifetime earnings, depends on the ages at which caregiving occurs. In Figure 1, we stack observations for all cohorts and show the fraction of women providing care at each age. We look separately at care for parents / parents-in-law and spouses, as well as the fraction providing any care.[11] As the figure illustrates, caregiving for parents peaks in the mid-50s and falls off thereafter, as parents are no longer alive or perhaps sufficiently infirm that they need formal care. Conversely, caregiving for a spouse, while important, does not become a widespread phenomenon until the respondents' mid- to late-60s, by which time many of these women have already left the labor force.

Figure 2 illustrates the cumulative burden of care, examining the fraction of women ever providing care by age, and disaggregated by type of care. This figure shows how many women are impacted by the phenomenon. If we consider 65 to be the normal retirement age for these cohorts of women,[12] we see that close to 35 percent of women in our sample had provided care to a parent / parent-in-law or spouse prior to retirement age. In results not shown, if we restrict the sample to those with a living parent / parent-in-law, the fraction ever providing care rises to over 50 percent.[13]

One can imagine that there might be differences across cohorts in the age at which care begins and in to whom this care is provided. As noted earlier, fertility has declined over time meaning smaller sib-ships and a greater need for a specific woman to care for a parent. Conversely, the labor force attachment of women has increased, increasing the likely opportunity cost of providing care and perhaps decreasing care. On the demand side, younger cohorts may be more likely to have parents alive when they are in their 50s and early 60s than would older cohorts; or alternatively, parents of respondents in a younger cohort may be less in need of help at a given age than parents from an older cohort. Similarly, with regard to caregiving for spouses, spouses of the

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[11] The prevalence of parent-in-law care is low, reaching 2 percent at its peak, and follows the same path as care to parents. For parsimony, we combine the two types of parental care, although all analyses presented here were done with the types of parental care separate as well.

[12] The full retirement age for most women in our sample is greater than 65. Those born in 1937 or earlier have a full retirement age of 65. For women born later, the full retirement age increases gradually, reaching 66 for women in our EBB cohort.

[13] Note that our sample is not a balanced panel, the decline in "ever caregiving" after age 65 is due to changes in the composition of the sample as the cumulative value for any one woman cannot decline over time.

women in our younger cohorts would be expected to first need care at somewhat more advanced ages than spouses in the older cohorts and would therefore be less likely to need care during the woman's working life.

In Figure 3, we show caregiving by age and by cohort. The HRS cohort is followed for the longest period of time and exhibits relatively constant care from age 50 to age 75. The lines for the WB and EBB cohorts are surprisingly similar although they appear nosier than the HRS line, likely due to the smaller sample size. In fact, the lines for the War Babies (WB) cohort born between 1942 and 1947, and the Early Baby Boomers (EBB) cohort born between 1948 and 1953 lie nearly on top of each other. The line for the original cohort of the HRS is slightly lower than those for the WB or EBB. And as shown in Appendix Table A1, HRS respondents are significantly less likely to have parents alive: 49 percent of HRS respondents had a living parent in the first wave, compared to 62 percent of WB and 59 percent of EBB.

Important in this analysis is the age at which caregiving commences. Because the survey asks respondents about care provided since the last survey (or in the last two years when not previously interviewed) we do not know *exactly* when the care began, only that it commenced at some point within the two year interval. We define the age at the onset of care to be the age at the first interview for which they report providing care. For those women who started caregiving prior to the first interview, we use the first interview date.[14] Figure 4 reports the distribution of the age at which caregiving commenced. Because as we just noted there is some ambiguity in the specific age at which care begins, and to simplify the diagram, we use 5-year age intervals rather than single years of age. We look separately at any care (dark solid bars), care for a parent/parent-in-law (lighter bars) and care for a spouse (lightest color).

We see similar patterns to overall caregiving. Parental care begins at relatively young ages with the modal age category being the 50-54 age group, with slightly over 4 percent of women in our sample beginning caregiving at this point in their lives (xx percent of these women were already providing care when the survey began.) Conditional on providing care at some point (not shown), nearly 25 percent began providing care in their early 50s. However, the onset of parental care in the 55-59 year old age range is nearly as common with just under 4 percent providing care at this point (xx percent of whom were providing care prior to the start of the survey.) Spousal care

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[14] Eliminating these observations led to…..

remains less common even at the most advanced ages and does not exceed two percent until the 70-75 year old age category.

This onset of caregiving could be met by some combination of departure from the labor force, a reduction in hours, and a reduction in effort on the job, or simply through a shifting of non-work time to caregiving. This change could occur immediately upon the commencement of care, or follow at some point thereafter. To examine this dimension we reorganize our observations to center around the time at which we first observe the woman to provide care and term this point T=0. We look at labor market behavior before and after this change. Figure 5 reports these results.

Looking at the change in labor force participation over time in Figure 5a, there is a steady decline in participation, but there does not appear to be a kink at the point at which care begins (time T=0). This decline is due solely to a decline in full-time employment as part-time work remains relatively steady. Figure 5b shows the time series pattern in hours worked. Again, there is a continuous decline, but no sharp change at time T=0. However, looking at earnings, conditional on working (Figure 5c), there is a sharp decline beginning at T=0. This accords with earlier work that found lower earnings growth among caregivers relative to non-caregivers (McGarry, 2003).

A key factor in the importance of caregiving in affecting labor market behavior is the amount of time devoted to care. Figure 6 illustrates the distribution of hours of care to parents, conditional on a non-zero amount of care. Figure 6a shows the distribution hour by hour, and figure 6b aggregates these values to broader intervals. While the lowest category (0, 100] is the most common, a substantial fraction, 13 percent, are providing more than 2000 hours of care over the past two years, or approximately 20 hours per week if this care is uniformly distributed over the two year interval.

Figure 7 first reports similar statistics for care to a spouse. Spousal care is measured differently than parental care. While the hours of parental care are measured as the total number of hours over the two-year period, spouse care is reported as the number of days of care and the number of hours per day provided in the past month. We multiply the hours and days to create a variable for hours per week. Again, the most common outcome is care in the (0, 5] interval, but a substantial fraction, over 31 percent, provide more than 20 hours per week. To make the comparison with parental care more directly, we repeat the distribution of care to parents, scaled

to a weekly basis. Note that the vertical axes differ, and that as was apparent in Table 1, care to spouses, although far less common than care to parents, is far more intensive in terms of hours.[15]

Of interest also is the persistence of such caregiving. Although we do not have start and stop dates for care, we are able to measure the number of successive interviews at which our respondent reports providing care for parents. To make the length of the observation period equal across cohorts, we limit this analysis to the first four surveys for each cohort—a period of 8 years. In Figure 8a, we show first the distribution of years of care for the entire sample, conditional on any care being provided, and then separately by cohort. For the entire sample, the modal number of waves is one, with two-thirds of the caregivers in our sample reporting care at just one survey. Because of the two-year interval between surveys, this could represent anywhere between zero and two years of providing care. Nearly one-quarter of caregivers report caregiving in two waves of the survey, corresponding to up to four years of care, and approximately 8 percent report caregiving in three separate waves. Figure 8b shows the total number of hours by group. For those with a single report of care, the mean number of hours of care provided is 624; if this amount is spread uniformly across a two-year period, it corresponds to six hours per week. The number of hours rises with the number of periods but does so more than proportionately. The implied weekly number of hours for those caregiving at two waves is 6.5, for those with three waves of caregiving it is 10.4, and for those with caregiving at four waves, the implied weekly total is 15.4. It thus appears that the longest serving caregivers are providing the most intense care.[16]

Looking separately by cohort in Figures 9a-9c, the patterns are similar. While caregiving is relatively common, it is unlikely to last for more than a few years. Of particular note is the large number of hours for individuals in the WB cohort with three waves of care—the 5003 total hours corresponds to 16 hours per week—and the large amount by those in the EBB cohort, who report 7,703 hours of care for 4 waves, or 18.5 hours per week.

IV. Regression Analysis

With this information as background, we now turn to a multivariate analysis to allow us to examine these changes in labor market behavior, controlling for other factors that might also impact the

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[15] Recall that care to spouses is measured differently from care to parents. Although all caregivers in our sample are providing help with ADL needs, the hours measure may include other types of help as well.
[16] Note that if caregiving is distributed unevenly across the survey period, per week totals would be greater in those weeks when care is provided.

decision. Because our focus is on labor market hours, we look solely at caregiving to parents. In our sample, the vast majority of spousal care comes at older ages. Our regression controls include age and age squared; dummy variables for different levels of educational attainment; indicators for race (non-white), ethnicity (Hispanic), and fair / poor health; number of children; non-labor income; household assets; and dummy variables for each survey year. All of these are fairly standard in equations predicting labor market behavior. We also include indicators for each HRS cohort. Our variable of interest is our measure of caregiving. We look currently at the effect of a 0/1 indicator for whether the respondent provides any care. In future work, we will examine the role of hours.

It is likely that there are unobservable factors that affect both work and caregiving, industriousness or conscientiousness, for example (e.g. Freeman, 1997. Individuals who are lazy may be unlikely to work or to work a lot of hours and may similarly be unlikely to make the effort to provide care. Because we have multiple observations per respondent, we are able to use a fixed effects analysis to control for these unobserved characteristics.

OLS / Fixed Effects: In Table 2, we examine the simple 0/1 decision to work. The first pair of columns shows the results from OLS regressions for the probability the respondent works. The variable of interest, "Any Parent Care 0/1" has a negative and significant effect on work. Those providing care are 2.7 percentage points less likely to work on a mean of 40 percent, or roughly 6 percent. The other explanatory variables operate as expected: non-whites are significantly less likely to work, as are those in poor health and those who are married. Work increases with education and decreases with age, assets, and non-labor income. Interestingly, we are able to capture the cohort effect in the probability of working. Those in the WB cohort are 1.5 percentage points more likely to be employed than those in the older HRS cohort, and those in the EBB cohort are 2.7 percent more likely.

Looking at the fixed effects results, the effect of caregiving is similar, corresponding to a reduction in the probability of working of 2.4 percentage points, and significant at a 1 percent level. Married women, those with young children, and those in poor health are significantly less likely to work and work again decreases with age, assets, and non-labor income.

In Table 3 we repeat the analysis for hours worked conditional on working. As we saw in Figure 5b, there does not appear to be a significant effect of caregiving on hours worked in either

the OLS or fixed effects regressions. Previous work has shown that individuals are typically unable to vary hours of work on the job (Hurd and McGarry, 1993), and this result, coupled with that in Table 2, indicates that rather than reduce hours, individuals may simply leave a job in order to provide care. Other effects are as expected: more educated individuals work longer hours; non-whites, married women, and those in poor health work fewer hours. Conditional on working, income and assets do not appear to play an important role in determining hours worked. In results not shown, we repeated the analysis for full-time and part-time employment and found similar effects.

Table 4 illustrates the results for earnings. As was clear in the previous figures, there is a significant drop in earnings with caregiving—a decline of over $1200 per year—and it is significantly different from zero at the 5 percent level. However, this effect is not significantly different from zero in the fixed effects regression. Thus, while we see a strong decline in earnings in the descriptive figures, in the fixed effect analysis, it goes away. This result indicates that those who have lower earnings are selected into caregiving rather than those who provide care taking a reduction in earnings.

Two Stage Least Squares: As we discussed earlier, it is likely that there may be unobserved factors correlated with caregiving and with work, and we therefore employed a fixed effects analysis. There may also be other reasons for the endogeneity of caregiving, which may call for an instrumental variable or Two Stage Least Squares (2SLS) strategy. Identifying variables that are correlated with caregiving and not with labor market behavior is difficult. We use indicators for whether the mother, father, mother-in-law, and father-in-law died between the previous and current interview as well as the number of siblings and siblings-in-law. These variables likely affect the probability a respondent will provide care for a parent / parent-in-law, but ought not to have a direct effect on labor market behavior. (We do not have good instrumental variables for identifying spousal care, but as noted above, our attention to labor market behavior dictates our focus on parental care.)

In our 2SLS framework, the first stage regression examines the probability of providing care. This regression is of interest independent of its role in predicting caregiving for a second stage regression. We report the results in Table 5. We find no cohort effects in the likelihood of providing care, and perhaps surprisingly, caregiving increases with schooling, providing evidence

of the role of industry as an unobserved fixed effect. Non-whites are significantly more likely to provide care to a parent while those with young children are less so. Although one might expect well-to-do respondents to pay for formal care for a parent rather than provide it themselves, caregiving increases with household wealth.

Our identifying variables operate in the expected direction. Additional siblings significantly reduce the likelihood of providing care. The death of a parent during the intervening survey years indicates that a parent was likely ill and is positively related to caregiving. The R^2 for the regression is 0.08, and the F-statistic for the instrumental variables is 161, sufficiently large to indicate that the instrumental variables are strong.

Table 6 shows the effects of the regressions reported in tables 2-4 for regressions using 2SLS. In none of the cases is the caregiving variable significant, and in all cases the standard errors are greater than the coefficient estimate.[17]

Intensity of Care: While providing care to a parent seems to have some deleterious effect on labor market behavior, one could imagine that the greater the amount of care, the more severe the impact. We therefore repeat our regressions in table 2 through table 4 using the number of hours of care. We examine the same three outcome variables: work, hours, and earnings.

Table 7 shows the results for employment. In the first two columns we repeat the regressions of table 2—the OLS and fixed effect specifications for whether a 0/1 indicator of providing parental care has an effect on employment. In the next two columns we substitute the hours of care for our dichotomous variable. We see that in both OLS and fixed effect analysis, the more hours of care provided, the stronger the negative effect on labor force participation. One thousand hours of care decreases employment by 2.1 percentage points. (The mean number of hours conditional on a positive number is 755.) The magnitude of the effect is reduced by approximately 40 percent when moving to OLS. When both the indicator variable and the continuous measure are included the effect falls of hours of care falls in OLS and becomes insignificantly different from zero in the fixed effect specification. In fact, as is clear in the final column, in the fixed effect specification, the mere act of providing care has a larger and statistically significant effect while the hours provided do not.

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[17] We also examined log wages, the change in earnings and the change in wages. In no case were the 2SLS or Fixed effect estimates of the effect of caregiving significantly different from zero.

Table 8 repeats these estimates with the left hand side variable being hours of work. While the provision of care itself does not have a significant effect on hours of work (columns 1 and 2), hours of care do appear to reduce hours worked. The effect is significant both alone and when the indicator variable is included and if falls little with the indicator.

Finally, table 9 shows the results for earnings. While "any parent care" has a large negative effect on earnings when entered alone in OLS, the effect is basically zero in a fixed effect regression. However, hours of care is significantly related to earnings in both the OLS and fixed effect frameworks and when the two measures are entered simultaneously, only hours of care has a significant effect on earnings.

These results indicate that caregiving is negatively related to work, but it is the hours of care that matter when considering hours of work and earnings. While Figures 8 and 9 showed an increasing intensity of care with the length of the caregiving spell, our exploratory work in this vein did not find a significant relationship between hours of care and labor force participation. We plan to continue to explore this effect.

V. Conclusion

The retirement of the baby boom and the aging of the population more generally present a number of challenges. Two of the most pressing are the need to care for the elderly, and the need to retain a large and productive workforce when this large cohort reaches retirement age. These two issues are interrelated in that workers, particularly women, may reduce their labor force participation in order to care for an elderly parent. In this paper, we examined the relationship between work and caregiving.

We find that caregiving is quite prevalent, with approximately one-third of women in our sample of women in their 50s and early 60s providing care at some point during our window of observation. Because we are focusing on prime age working women (i.e. those in their 50s and early 60s) the majority of this care is to parents. Were we to extend our window of observation, we would see even more care, primarily care to spouses, but it would be unlikely that such care would affect labor market behavior given the age of women.

We find a far weaker relationship between caregiving and work than previous studies may have led us to believe. In simple descriptive statistics, we see a precipitous decline in earnings with caregiving, but no such decline in employment or hours. We find a similar result in OLS

regressions: earnings are significantly negatively related to caregiving, but employment and hours are not. However, when looking at fixed effect regressions or 2SLS specifications, there is not a significant relationship between caregiving and labor market behavior. In both OLS and Fixed Effects we do find a significant effect of caregiving on the probability of work, with the OLS estimate implying a reduction of 2.7 percentage points and the fixed effects estimate a nearly identical 2.4 percentage point reduction.

Despite this finding, there is still much work to do in obtaining a fuller picture of caregiving behavior and its impact on other economic activities. The hours spent caregiving are hours that could have been used for other activities, if not work. There may be declines in leisure, home production, or investment in children or health. Caregiving may also bring with it emotional stress, which itself has negative health effects. We need also examine whether there are differences in the types of job caregivers hold—in particular, the availability of benefits—and in eventual retirement behavior of caregivers. In going forward, we will examine the entire work life to see how caregiving at older ages relates to caregiving at younger ages and examine the difference in caregiving for men and women.

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Table 1: Summary Statistics

	All		Never Provide Care		Provide Care	
	Mean	(Std. Err.)	Mean	(Std. Err.)	Mean	(Std. Err.)
Age (baseline)	54.6	(0.039)	54.7	(0.046)	54.1***	(0.063)
Non-white	0.20	(0.0044)	0.22	(0.0055)	0.17***	(0.0073)
Hispanic	0.094	(0.0031)	0.095	(0.0039)	0.079**	(0.0052)
High School Education	0.36	(0.0052)	0.36	(0.0064)	0.37*	(0.0093)
Some College	0.25	(0.0046)	0.24	(0.0057)	0.26	(0.0085)
College+	0.21	(0.0044)	0.20	(0.0054)	0.21	(0.0078)
Married (baseline)	0.64	(0.0052)	0.58	(0.0066)	0.74***	(0.0085)
Any Living Parents (baseline)	0.55	(0.0054)	0.46	(0.0067)	0.76***	(0.0083)
Any Living Parents-in-law (baseline)	0.34	(0.0053)	0.30	(0.0062)	0.43***	(0.0098)
Number of Children (baseline)	2.92	(0.021)	2.82	(0.025)	3.05***	(0.038)
Work 0/1 (baseline)	0.65	(0.0051)	0.65	(0.0064)	0.67**	(0.0091)
Hours (conditional on working)	37.9	(0.18)	37.6	(0.23)	38.6***	(0.30)
Earnings (baseline, conditional > 0)	37.1	(0.45)	36.6	(0.55)	38.2	(0.81)
Spouse/Partner Works 0/1 (baseline, if has sp/p)	0.75	(0.0059)	0.79	(0.0071)	0.70***	(0.010)
Spouse/Partner Earnings (baseline, conditional > 0)	68.3	(1.70)	68.4	(1.66)	70.3	(3.93)
Household Income (baseline)	82.6	(1.25)	79.6	(1.36)	89.5***	(2.77)
Assets (baseline)	352.6	(8.27)	338.9	(10.3)	370.4	(14.3)
Any Care at Baseline	0.083	(0.0032)	0	(0)	0.26***	(0.0089)
Ever Provide Any Care	0.32	(0.0051)	0	(0)	1	(0)
Ever Provide Parent Care	0.24	(0.0047)	0	(0)	0.76***	(0.0083)
Parent Care Mean Hours (conditional > 0)	754.6	(25.0)	.	(.)	754.6	(25.0)
Ever Provide Spouse Care	0.11	(0.0033)	0	(0)	0.34***	(0.0091)
Spouse Care Mean Hours (conditional > 0)	124.6	(7.93)	.	(.)	124.6	(7.93)
Number of Interviews	5.77	(0.033)	5.44	(0.041)	6.85***	(0.053)
Number of Observations	10949		7186		3763	

Person weights. Asterisks indicate significant differences between second two columns. 1000s of 2010 dollars.

* $p<.1$, ** $p<.05$, *** $p<.01$

Table 2: Work 0/1

	OLS Work 0/1		FE Work 0/1	
Any Parent Care 0/1	-0.027**	(0.011)	-0.024***	(0.0085)
WB Cohort	0.015	(0.015)		
EBB Cohort	0.027	(0.018)		
High School	0.079***	(0.011)		
Some College	0.12***	(0.013)		
College+	0.17***	(0.014)		
Non-White	-0.011	(0.0096)		
Hispanic	-0.029**	(0.012)		
Number of Children	0.0027	(0.0018)		
Married	-0.056***	(0.0081)	-0.030***	(0.011)
Child Under 18	-0.017	(0.019)	-0.047***	(0.018)
Fair/Poor Health	-0.22***	(0.0072)	-0.066***	(0.0062)
Age	-0.053***	(0.0078)	-0.042***	(0.0092)
Age * Age	0.00021***	(0.000059)	0.00031***	(0.000057)
Assets Q2 (t-1)	0.051***	(0.0086)	0.00037	(0.0075)
Assets Q3 (t-1)	0.034***	(0.010)	-0.029***	(0.0097)
Assets Q4 (t-1)	-0.012	(0.012)	-0.052***	(0.012)
Non-labor Income Q2 (t-1)	-0.10***	(0.0076)	-0.041***	(0.0063)
Non-labor Income Q3 (t-1)	-0.11***	(0.0085)	-0.051***	(0.0069)
Non-labor Income Q4 (t-1)	-0.14***	(0.0094)	-0.070***	(0.0076)
N	47242		47242	
R^2	0.212		0.166	
Mean of Dependent Variable	0.412		0.412	

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.
* p<.1, ** p<.05, *** p<.01

Table 3: Hours (conditional on working)

	OLS Hours		FE Hours	
Any Parent Care 0/1	-0.23	(0.45)	-0.58	(0.39)
WB Cohort	-0.22	(0.56)		
EBB Cohort	-0.88	(0.73)		
High School	0.26	(0.59)		
Some College	1.07*	(0.61)		
College+	2.32***	(0.68)		
Non-White	-0.68*	(0.39)		
Hispanic	-0.49	(0.66)		
Number of Children	-0.065	(0.088)		
Married	-1.87***	(0.35)	-0.82	(0.56)
Child Under 18	-0.87	(0.65)	-1.33*	(0.71)
Fair/Poor Health	-0.81**	(0.40)	-0.24	(0.36)
Age	1.61***	(0.43)	1.79***	(0.54)
Age * Age	-0.019***	(0.0035)	-0.015***	(0.0038)
Assets Q2 (t-1)	0.066	(0.36)	0.19	(0.35)
Assets Q3 (t-1)	-0.79*	(0.42)	-0.11	(0.47)
Assets Q4 (t-1)	-1.84***	(0.53)	-0.92	(0.58)
Non-labor Income Q2 (t-1)	-1.19***	(0.35)	0.27	(0.32)
Non-labor Income Q3 (t-1)	-1.80***	(0.38)	-0.16	(0.35)
Non-labor Income Q4 (t-1)	-2.50***	(0.43)	-1.05***	(0.36)
N	19072		19072	
R^2	0.096		0.103	
Mean of Dependent Variable	33.91		33.91	

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.
* $p<.1$, ** $p<.05$, *** $p<.01$

Table 4: Earnings (unconditional)

	OLS Earnings		FE Earnings	
Any Parent Care 0/1	-1237.1**	(531.0)	-126.2	(483.6)
WB Cohort	1700.6*	(911.1)		
EBB Cohort	2462.3**	(1166.2)		
High School	3504.5***	(347.1)		
Some College	7539.9***	(509.8)		
College+	17965.2***	(793.7)		
Non-White	-20.7	(426.0)		
Hispanic	-1827.7***	(527.0)		
Number of Children	-63.5	(77.0)		
Married	-2441.1***	(401.3)	-604.8	(510.1)
Child Under 18	-3230.0***	(1017.0)	-2234.6**	(1050.4)
Fair/Poor Health	-6143.2***	(275.1)	-976.7***	(240.6)
Age	-2947.3***	(381.7)	-1229.9***	(460.2)
Age * Age	14.8***	(2.84)	15.9***	(2.75)
Assets Q2 (t-1)	3129.5***	(353.3)	494.8	(372.3)
Assets Q3 (t-1)	4980.3***	(475.3)	-349.9	(518.0)
Assets Q4 (t-1)	4517.8***	(619.2)	-2267.5***	(645.1)
Non-labor Income Q2 (t-1)	-5584.6***	(380.4)	-1963.3***	(295.4)
Non-labor Income Q3 (t-1)	-7575.9***	(437.2)	-3899.3***	(344.6)
Non-labor Income Q4 (t-1)	-10832.0***	(560.9)	-6346.5***	(421.0)
N	47289		47289	
R^2	0.193		0.091	
Mean of Dependent Variable	13219.7		13219.7	

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.
* p<.1, ** p<.05, *** p<.01

Table 5: First Stage

	Any Parent Care 0/1 OLS	
WB Cohort	0.0050	(0.0062)
EBB Cohort	0.0015	(0.0085)
High School	0.015***	(0.0040)
Some College	0.013***	(0.0047)
College+	0.017***	(0.0056)
Non-White	0.011***	(0.0039)
Hispanic	0.0039	(0.0054)
Number of Children	-0.00028	(0.00071)
Married	0.0056	(0.0038)
Child Under 18	-0.019**	(0.0085)
Fair/Poor Health	0.0035	(0.0031)
Age	0.0013	(0.0034)
Age * Age	-0.000035	(0.000025)
Assets Q2 (t-1)	0.011***	(0.0036)
Assets Q3 (t-1)	0.0094**	(0.0039)
Assets Q4 (t-1)	0.011**	(0.0046)
Non-labor Income Q2 (t-1)	-0.00097	(0.0036)
Non-labor Income Q3 (t-1)	-0.0014	(0.0039)
Non-labor Income Q4 (t-1)	-0.0016	(0.0044)
Instruments		
Number of Living Siblings	-0.0014**	(0.00061)
Number of Living Siblings-in-law	-0.00092	(0.00072)
Mother died	0.26***	(0.010)
Father died	0.16***	(0.013)
Mother-in-law died	0.11***	(0.011)
Father-in-law died	0.088***	(0.015)
N	46295	
R^2	0.080	
F Statistic (Instruments)	161.1	
F-Statistic (Overall)	42.34	
Mean of Dependent Variable	0.0640	

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.
* p<.1, ** p<.05, *** p<.01

Table 6: Two-Stage Least Squares Estimates

	Work 0/1 2SLS	Hours 2SLS	Earnings 2SLS
Any Parent Care 0/1	-0.015	0.37	-148.4
	(0.031)	(1.50)	(1791.4)
WB Cohort	0.016	-0.17	1717.0*
	(0.015)	(0.57)	(926.5)
EBB Cohort	0.025	-0.84	2086.7*
	(0.018)	(0.73)	(1178.3)
High School	0.075***	0.26	3396.5***
	(0.011)	(0.59)	(352.4)
Some College	0.12***	1.06*	7453.4***
	(0.013)	(0.62)	(514.6)
College+	0.17***	2.29***	17744.7***
	(0.014)	(0.69)	(797.5)
Non-White	-0.011	-0.68*	-28.0
	(0.0097)	(0.39)	(431.5)
Hispanic	-0.031**	-0.46	-1914.8***
	(0.013)	(0.67)	(529.3)
Number of Children	0.0025	-0.058	-67.9
	(0.0018)	(0.090)	(77.9)
Married	-0.057***	-1.91***	-2427.9***
	(0.0082)	(0.36)	(408.2)
Child Under 18	-0.016	-0.89	-3165.5***
	(0.020)	(0.67)	(1038.4)
Fair/Poor Health	-0.23***	-0.83**	-6213.5***
	(0.0073)	(0.41)	(277.6)
Age	-0.061***	1.52***	-3497.6***
	(0.0078)	(0.48)	(376.7)
Age * Age	0.00028***	-0.018***	18.9***
	(0.000059)	(0.0039)	(2.78)
Assets Q2 (t-1)	0.051***	0.054	3117.8***
	(0.0086)	(0.37)	(357.8)
Assets Q3 (t-1)	0.034***	-0.74*	4903.4***
	(0.010)	(0.43)	(479.2)
Assets Q4 (t-1)	-0.013	-1.93***	4396.7***
	(0.012)	(0.53)	(624.9)
Non-labor Income Q2 (t-1)	-0.10***	-1.22***	-5628.1***
	(0.0077)	(0.35)	(385.1)
Non-labor Income Q3 (t-1)	-0.11***	-1.85***	-7570.0***
	(0.0086)	(0.39)	(443.6)
Non-labor Income Q4 (t-1)	-0.14***	-2.50***	-10839.9***
	(0.0095)	(0.43)	(569.1)
N	46257	18652	46295
R^2	0.214	0.097	0.194
Mean of Dependent Variable	0.411	33.90	13219.7
First Stage F-Statistic	160.5	62.71	161.1
First Stage Partial R-sq.	0.0670	0.0570	0.0673

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.
* p<.1, ** p<.05, *** p<.01

Table 7: Work 0/1 and Caregiving Intensity

	OLS Work 0/1	FE Work 0/1	OLS Work 0/1	FE Work 0/1	OLS Work 0/1	FE Work 0/1
Any Parent Care 0/1	-0.028***	-0.025***			-0.014	-0.020**
	(0.011)	(0.0085)			(0.012)	(0.0093)
Parent Care Hours (100s)			-0.0021***	-0.0012**	-0.0016**	-0.00061
			(0.00059)	(0.00046)	(0.00065)	(0.00051)
N	47166	47166	47166	47166	47166	47166
R^2	0.212	0.166	0.212	0.166	0.212	0.166
Mean of Dependent Variable	0.412	0.412	0.412	0.412	0.412	0.412

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.
* p<.1, ** p<.05, *** p<.01

Table 8: Hours Worked (among Workers) and Caregiving Intensity

	OLS Hours	FE Hours	OLS Hours	FE Hours	OLS Hours	FE Hours
Any Parent Care 0/1	-0.24	-0.64			-0.37	-0.29
	(0.46)	(0.39)			(0.50)	(0.44)
Parent Care Hours (100s)			0.0044	-0.058**	0.017	-0.050*
			(0.032)	(0.027)	(0.035)	(0.030)
N	19037	19037	19037	19037	19037	19037
R^2	0.096	0.103	0.096	0.103	0.096	0.103
Mean of Dependent Variable	33.91	33.91	33.91	33.91	33.91	33.91

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.
* p<.1, ** p<.05, *** p<.01

Table 9: Earnings (Unconditional) and Caregiving Intensity

	OLS Earnings	FE Earnings	OLS Earnings	FE Earnings	OLS Earnings	FE Earnings
Any Parent Care 0/1	-1221.0**	-140.4			-120.7	298.5
	(539.5)	(486.5)			(615.5)	(544.7)
Parent Care Hours (100s)			-133.5***	-49.3**	-129.6***	-57.5**
			(25.4)	(21.7)	(28.6)	(24.3)
N	47213	47213	47213	47213	47213	47213
R^2	0.193	0.091	0.193	0.091	0.193	0.091
Mean of Dependent Variable	13217.3	13217.3	13217.3	13217.3	13217.3	13217.3

SEs clustered by individual in parentheses. HRS, WB, EBB cohorts.

* p<.1, ** p<.05, *** p<.01

Figure 1: Fraction of All Women Providing Care, by Age and Type of Care

Person weights. All women from all cohorts.
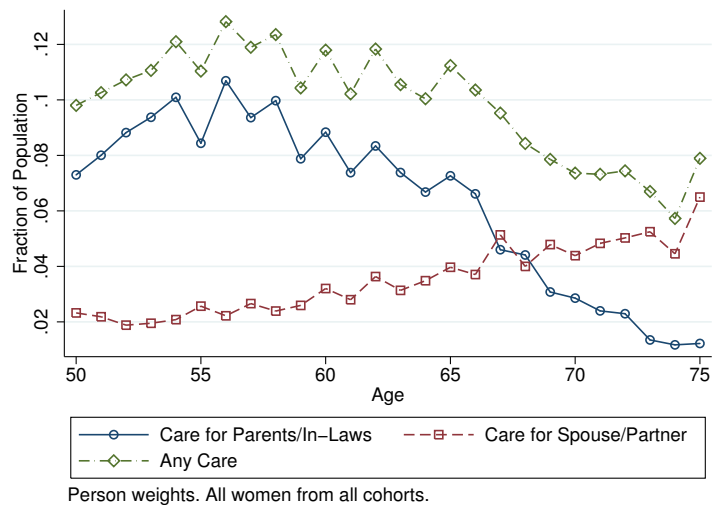
Figure 2: Fraction of All Women Ever Observed Providing Care, by Age and Type of Care

Person weights. All women from all cohorts.

9
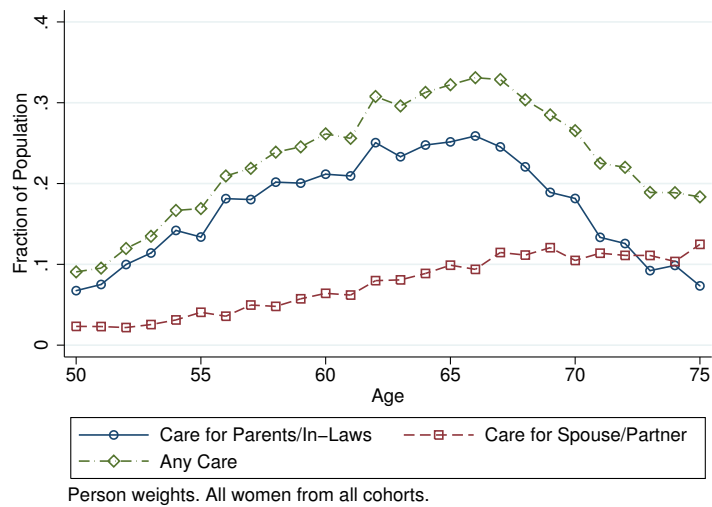
Figure 3: Fraction of women providing any care (parents, in-laws, spouse), by age and cohort

Person weights. All women from each cohort.
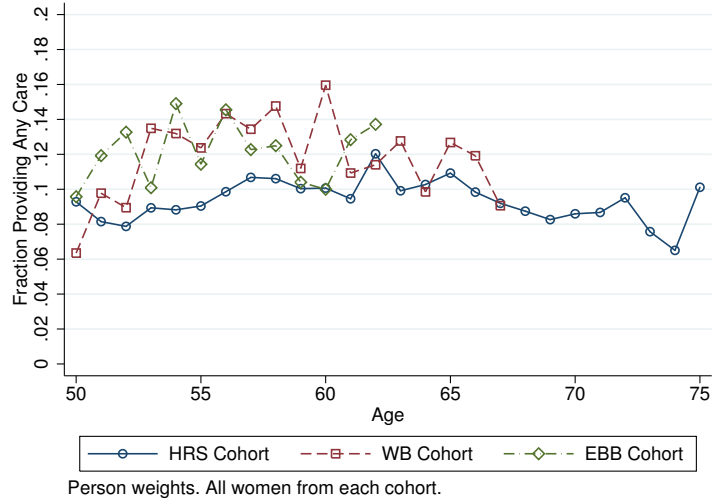
Figure 4: Fraction of women becoming first-time (in sample) caregivers, by type of care, 5-year age bins

Person weights. All women from HRS, WB, and EBB cohorts.
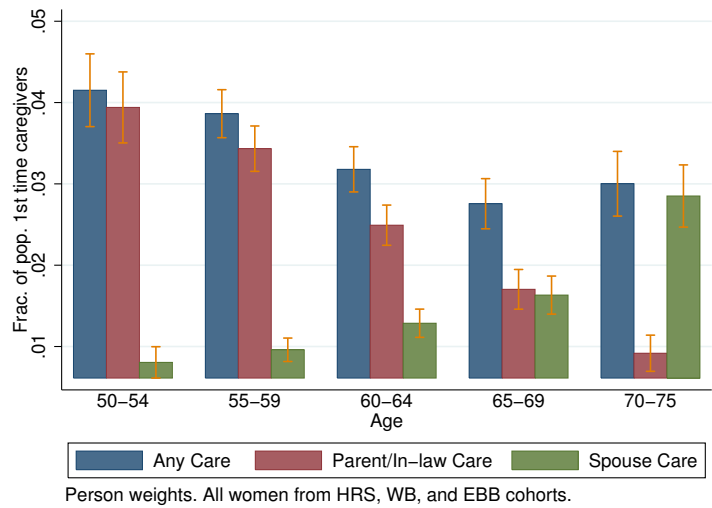
Figure 5: Labor Market Outcomes Relative to First Instance of Caregiving in Sample ($T = 0$)
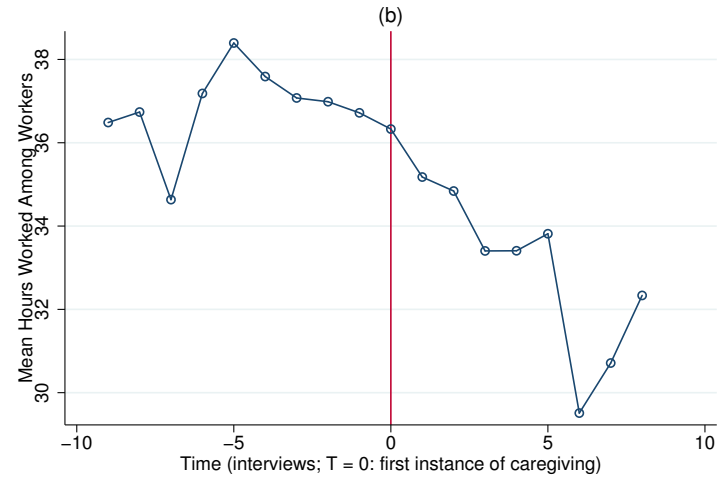
(a)

Person weights. Women providing care at some point in sample. HRS, WB, EBB.

(b)

Person weights. Women providing care at some point in sample. HRS, WB, EBB.

(c)
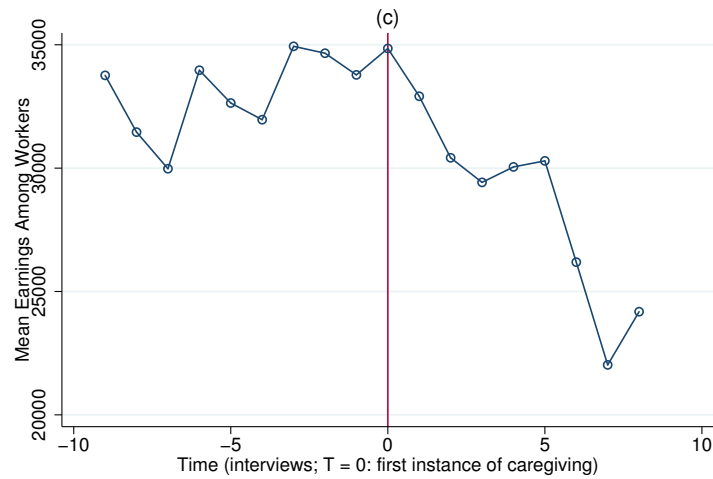
Person weights. Women providing care at some point in sample. HRS, WB, EBB.

Figure 6: Hours of Care to Parents in Last 2 Years
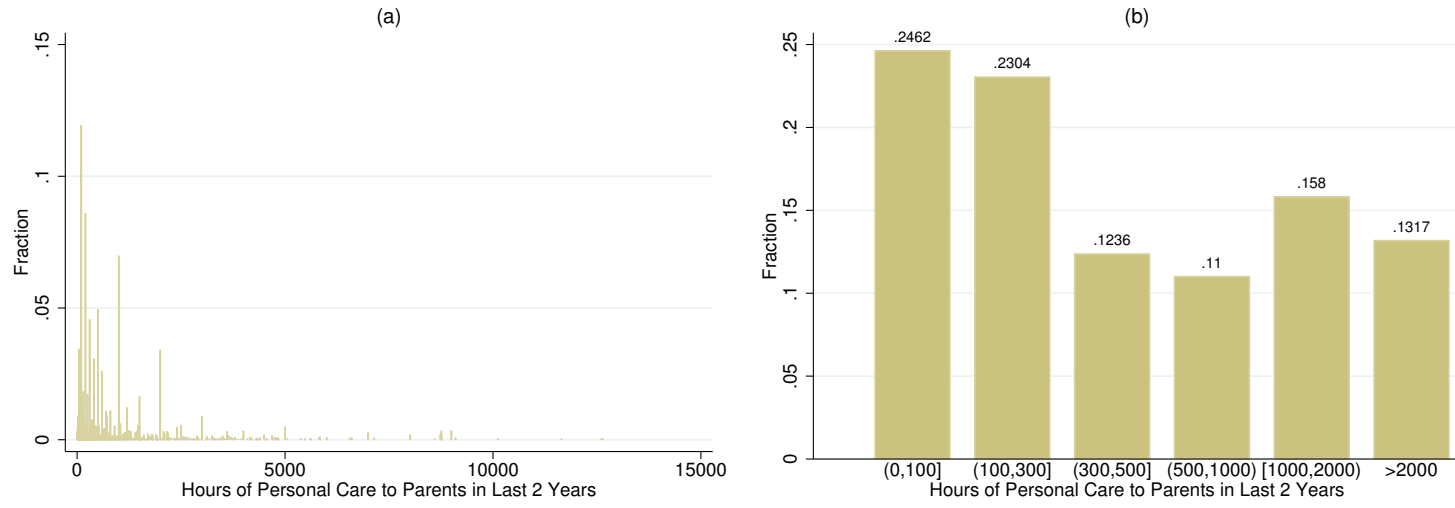
Figure 7: Weekly Hours of Care to Parents/In-laws (last 2 years) and Spouse (last month)
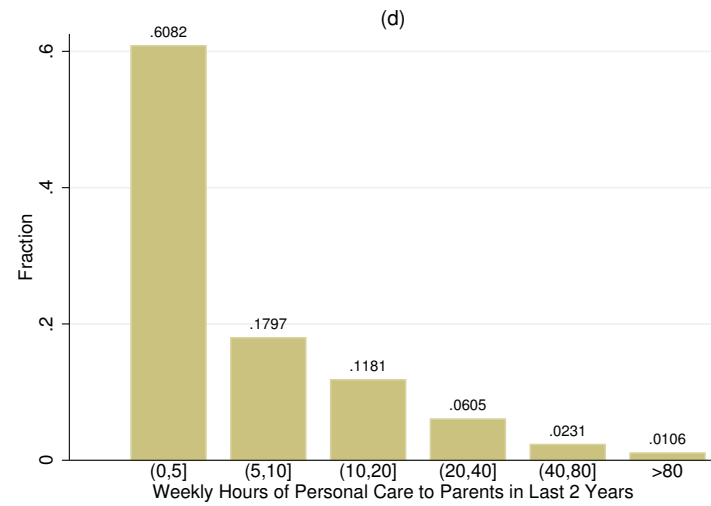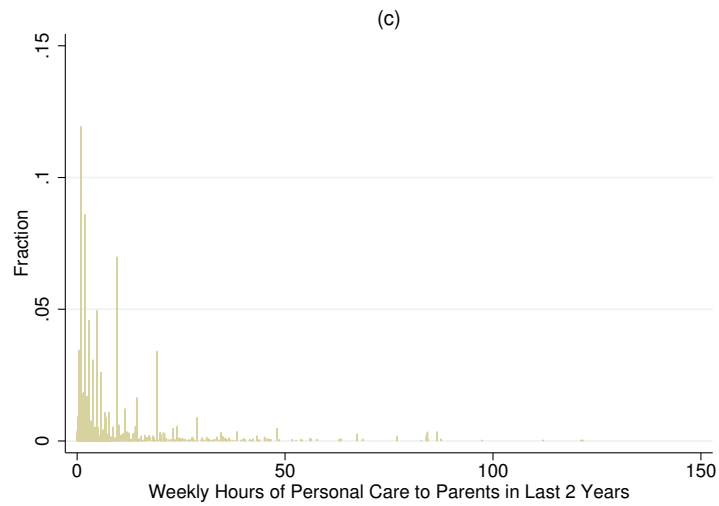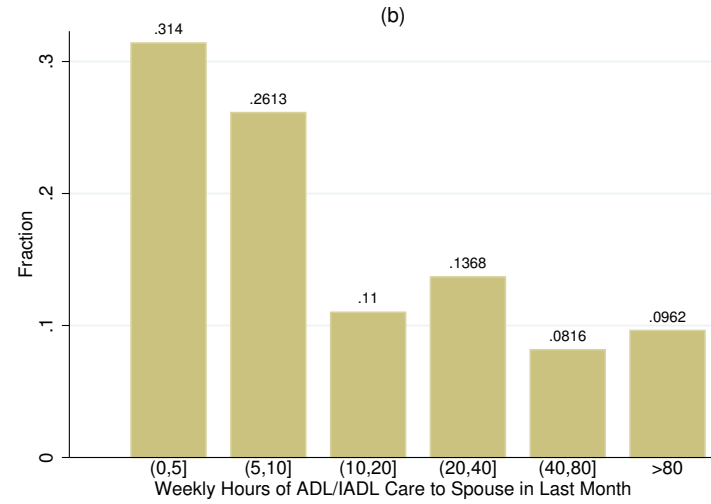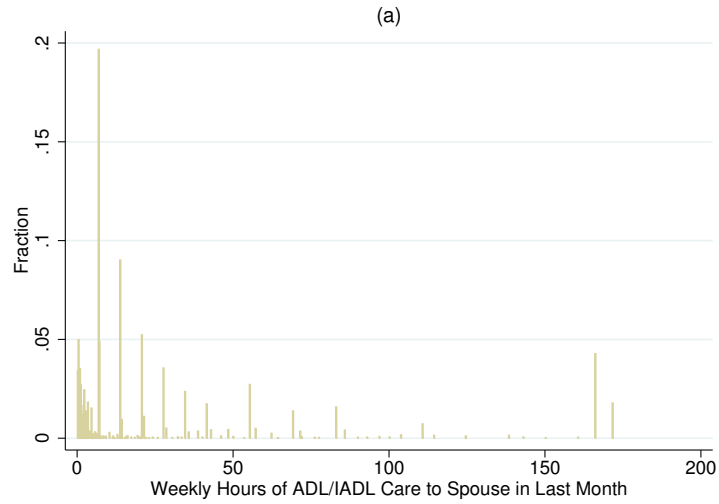
Figure 8: Number of interviews providing care and hours of care to parents in first 4 survey waves
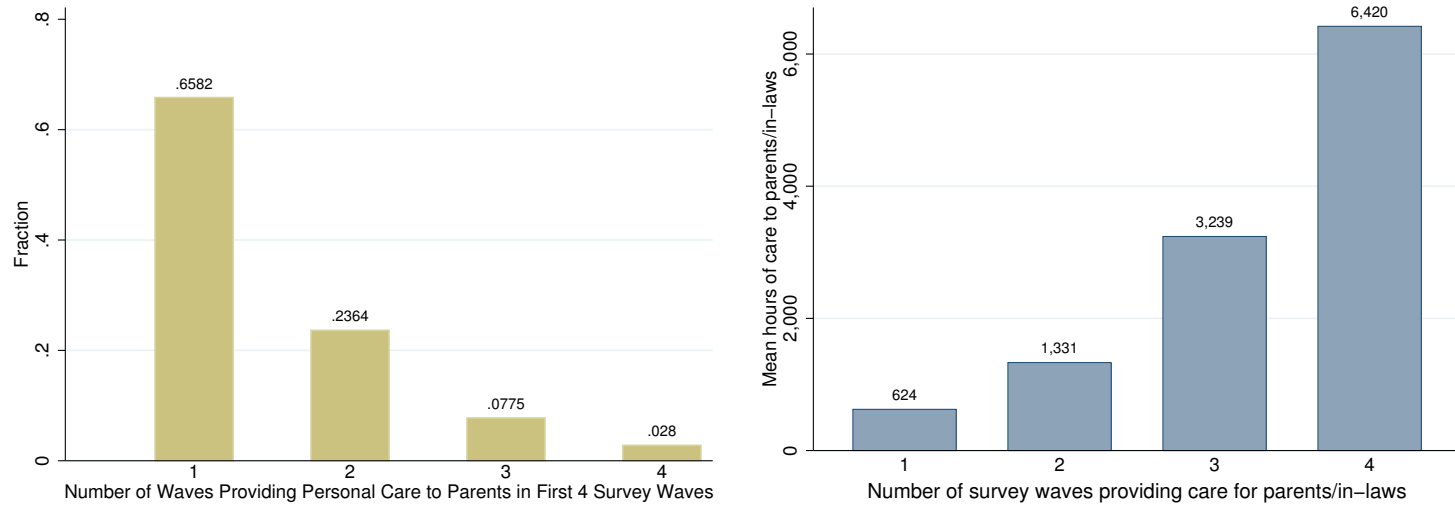
Figure 9: Number of interviews providing care and hours of care to parents in first 4 survey waves, by cohort
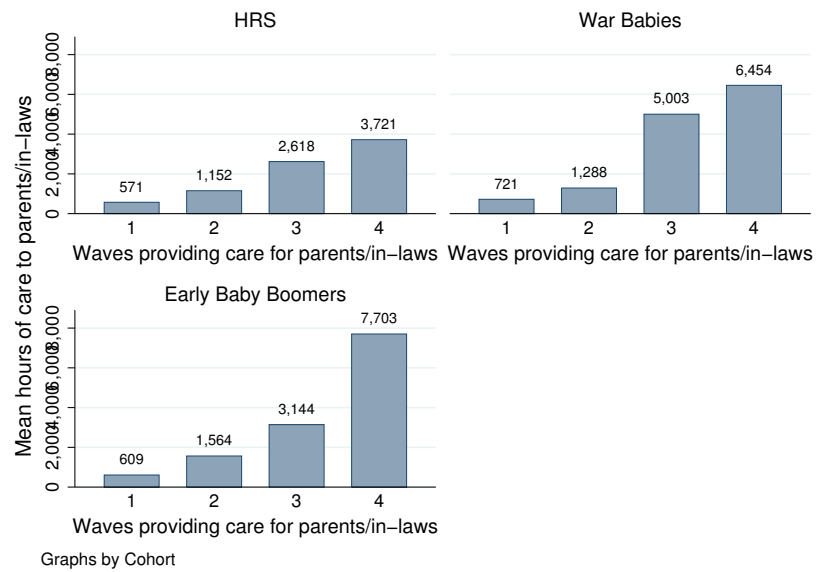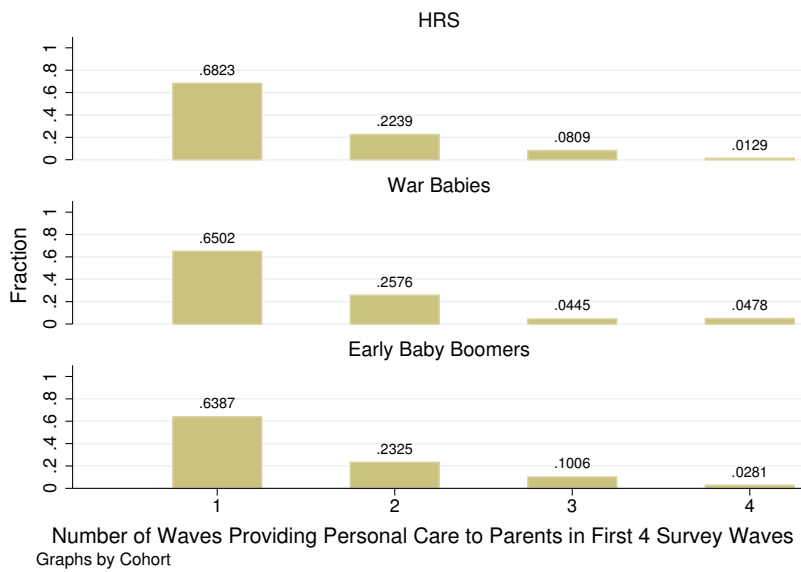
Table A.1: Summary Statistics by Cohort

	HRS Cohort		WB Cohort		EBB Cohort	
	Mean	(Std. Err.)	Mean	(Std. Err.)	Mean	(Std. Err.)
Age (baseline)	55.7	(0.052)	53.0	(0.077)	54.3	(0.078)
Non-white	0.15	(0.0048)	0.20	(0.012)	0.28	(0.0100)
Hispanic	0.066	(0.0033)	0.083	(0.0087)	0.14	(0.0076)
High School Education	0.42	(0.0066)	0.35	(0.015)	0.31	(0.010)
Some College	0.20	(0.0053)	0.27	(0.014)	0.29	(0.010)
College+	0.15	(0.0048)	0.23	(0.013)	0.26	(0.0097)
Married (baseline)	0.70	(0.0062)	0.60	(0.015)	0.58	(0.011)
Any Living Parents (baseline)	0.49	(0.0068)	0.62	(0.015)	0.59	(0.011)
Any Living Parents-in-law (baseline)	0.30	(0.0063)	0.38	(0.016)	0.37	(0.011)
Number of Children (baseline)	3.35	(0.028)	2.73	(0.057)	2.47	(0.037)
Work 0/1 (baseline)	0.60	(0.0066)	0.72	(0.014)	0.68	(0.010)
Hours (conditional on working)	36.8	(0.23)	38.5	(0.47)	38.7	(0.36)
Earnings (baseline, conditional > 0)	31.5	(0.46)	38.3	(1.15)	43.2	(1.11)
Spouse/Partner Works 0/1 (baseline, if has sp/p)	0.67	(0.0077)	0.83	(0.015)	0.82	(0.012)
Spouse/Partner Earnings (baseline, conditional > 0)	59.2	(2.21)	68.6	(2.62)	82.4	(4.32)
Household Income (baseline)	73.8	(1.52)	88.0	(3.27)	90.5	(2.79)
Assets (baseline)	353.4	(9.67)	345.7	(21.9)	356.4	(19.2)
Any Care at Baseline	0.049	(0.0032)	0.093	(0.0093)	0.12	(0.0073)
Ever Provide Any Care	0.36	(0.0065)	0.37	(0.015)	0.24	(0.0098)
Ever Provide Parent Care	0.24	(0.0058)	0.30	(0.015)	0.21	(0.0093)
Parent Care Mean Hours (conditional > 0)	662.6	(27.0)	876.1	(74.6)	775.6	(57.6)
Ever Provide Spouse Care	0.16	(0.0049)	0.095	(0.0092)	0.046	(0.0046)
Spouse Care Mean Hours (conditional > 0)	156.9	(10.5)	63.1	(14.3)	116.4	(19.0)
Number of Interviews	7.73	(0.040)	6.04	(0.055)	3.01	(0.029)
Number of Observations	7221		1465		2657	

Person weights. 1000s of 2010 dollars.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure A.1: Transition Matrix

Time t / Time t+1	Neither	Working Only	Caregiving Only	Both
Neither	22,780	1,993	876	90
	(0.89)	(0.08)	(0.03)	(0.00)
Working Only	4,334	19,224	269	1,094
	(0.17)	(0.77)	(0.01)	(0.04)
Caregiving Only	975	124	583	78
	(0.55)	(0.07)	(0.33)	(0.04)
Both	237	1,020	134	564
	(0.12)	(0.52)	(0.07)	(0.29)

Unweighted.

Figure A.2: Comparing Caregiving Behavior of Men and Women: Caregiving in Last 2 Years (Version 1)

Person weights. All women from all cohorts.

Person weights. All men from all cohorts.
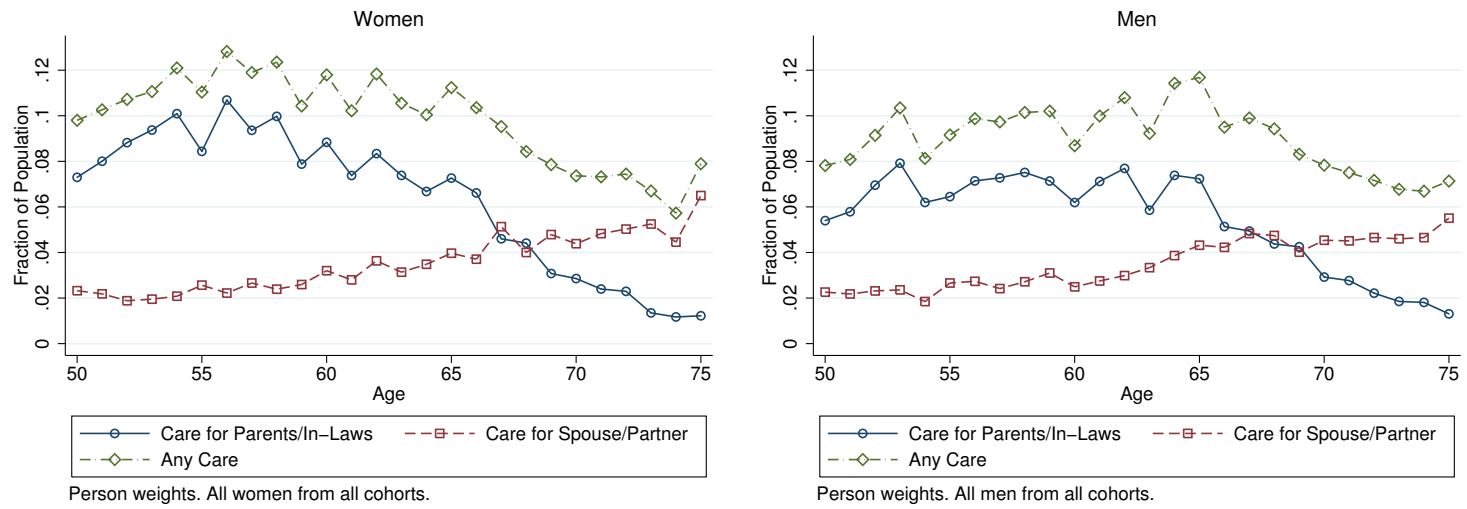
Figure A.3: Comparing Caregiving Behavior of Men and Women: Caregiving in Last 2 Years (Version 2)
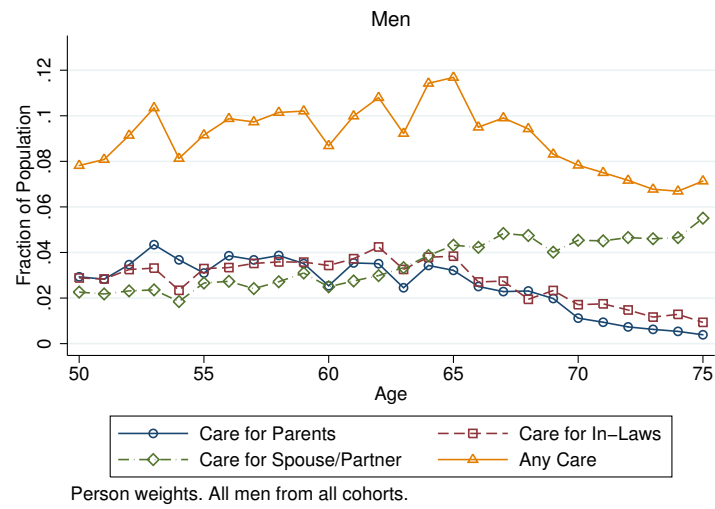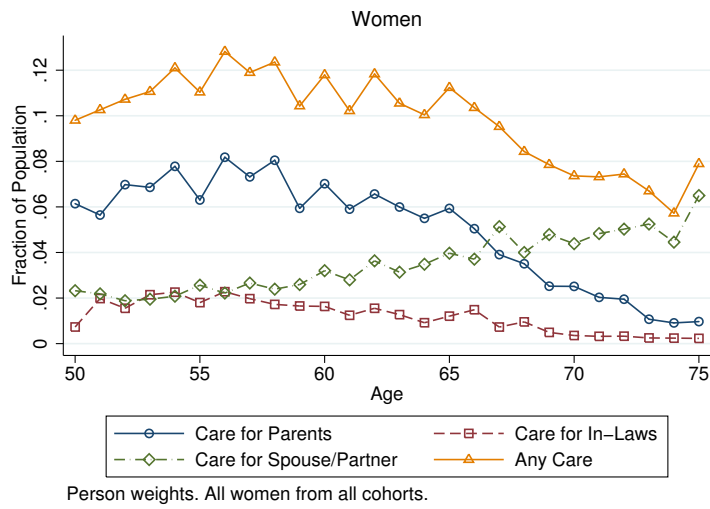
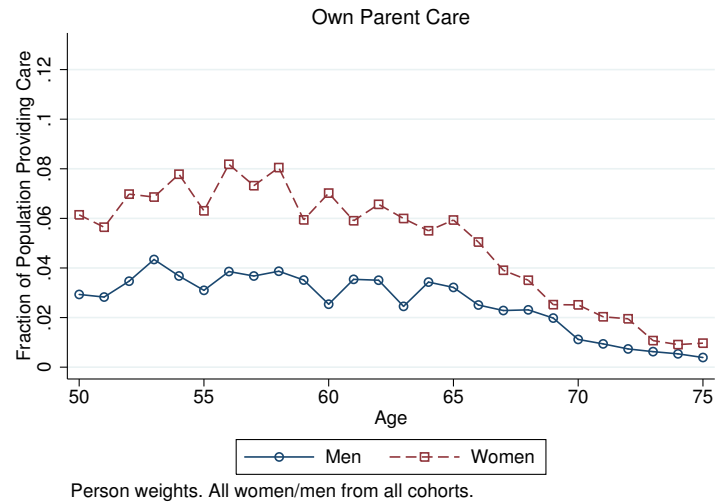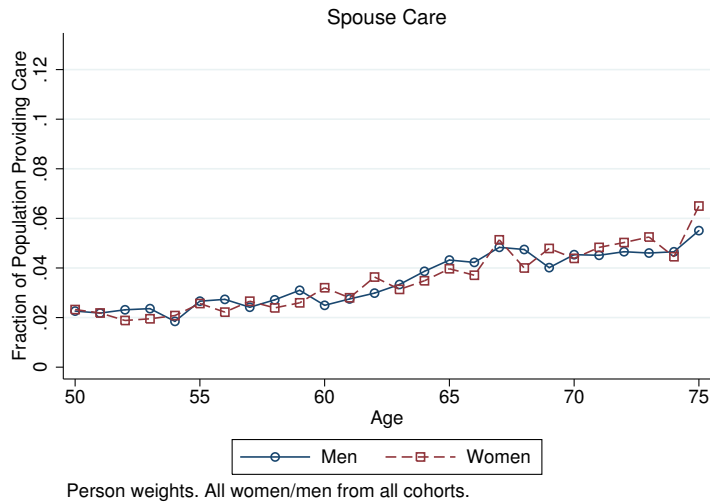Figure A.4: Comparing Caregiving Behavior of Men and Women: Caregiving in Last 2 Years (Version 3)
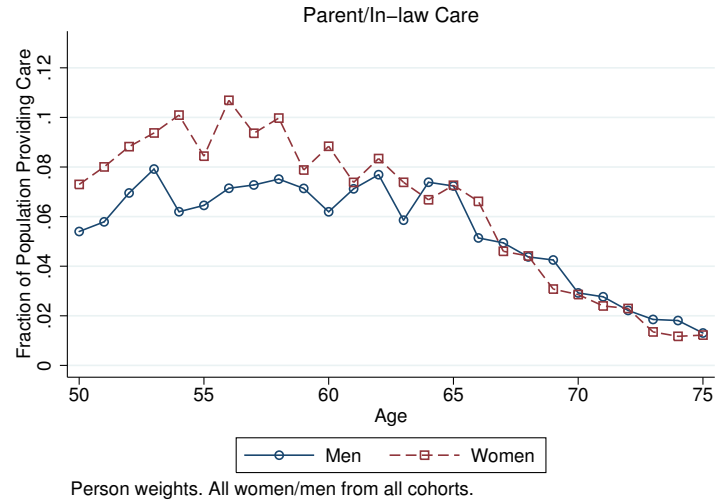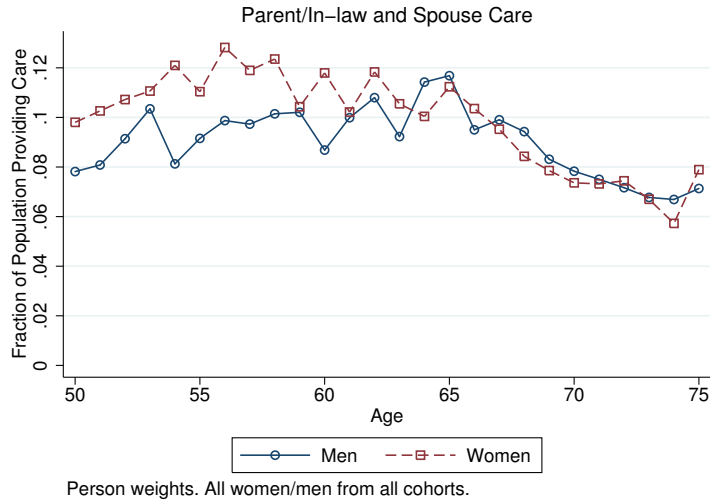
Figure A.5: Comparing Caregiving Behavior of Men and Women: Cumulative Caregiving (Version 1)
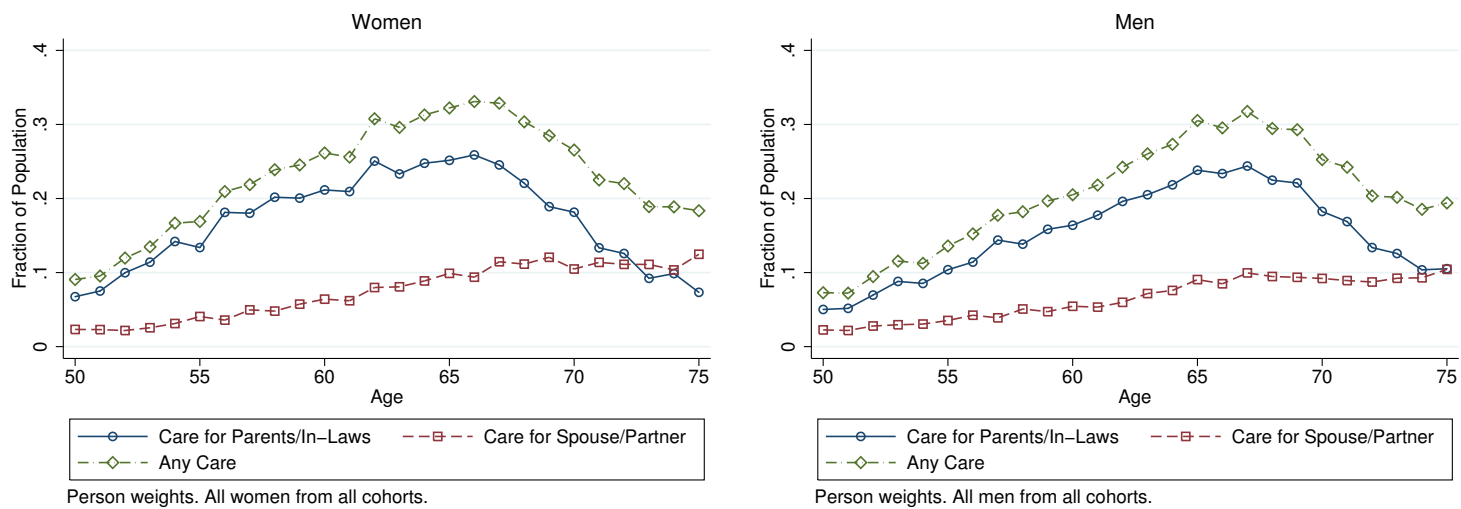
Figure A.6: Comparing Caregiving Behavior of Men and Women: Cumulative Caregiving (Version 2)

Parent/In–law and Spouse Care

Person weights. All women/men from all cohorts.

Parent/In–law Care

Person weights. All women/men from all cohorts.

Spouse Care

Person weights. All women/men from all cohorts.