

It Takes a Village to Care for a Boomer

THE EFFECT OF DIMINISHING SOCIAL CAPITAL AMONG BABY BOOMERS ON FORMAL AND INFORMAL CARE

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The growing number of retiring baby boomers signals an increasingly aging US population. As of 2018, 16 percent of the population was over 65 years old, up from 12 percent in 2000.¹ This trend is set to exacerbate strains on local, state, and federal resources as the elderly population's demand for health care grows. However, a smaller but potentially aggravating consideration in this scenario is that current retirees have fewer social ties than previous generations.

As a cohort, baby boomers are less likely to be married, have a good friend nearby, have a child living within 10 miles, or attend church regularly.² These statistics suggest that current retirees may not enjoy the same level of support from unpaid caregivers that their parents—who had historically high levels of civic involvement and thick social networks—enjoyed in old age. However, federal projections of public insurance programs rely implicitly on ratios of informal and formal caregiving experienced by the parents of baby boomers, potentially compounding the problem of declining social capital.³

The Joint Economic Committee (JEC) highlights these concerns in “An Invisible Tsunami: ‘Aging Alone’ and Its Effects on Older Americans, Families, and Taxpayers.”⁴ The JEC report and the accompanying testimony of Robert Putnam at the Hearing on the State of Social Capital in America discuss the

potential additional burden on formal caregivers and institutions to fill the gaps where familial and social networks fall short. Both the hearing and the report connect the dots on these seemingly independent trends to warn that the US isn't adequately anticipating the challenges of meeting growing demand for care among a cohort of current and future retirees with less social capital than their predecessors.

By using econometric methods, this report will expand on the JEC's work to evaluate how changing familial and social networks will affect health care utilization. I use data from the RAND Health and Retirement Study (HRS) Longitudinal File to examine (1) if the shifting trends in marital status, living arrangements, and use of paid help affect the total number of informal caregivers for older Americans; (2) whether there are differences in informal and formal utilization between and within birth cohorts; and (3) what policies can address the needs of retirees and caregivers in light of thinning social networks.⁵

Previous Work

This report builds on the existing literature about the relationship among eldercare, social support, and public insurance programs. The challenges associated

with the growing retiree population are relevant for economists, political scientists, and public health professionals who monitor how behavioral changes affect the labor market, public insurance programs, and the health outcomes of communities.

As baby boomers age and life expectancy continues to increase, the percentage of the population that is over age 65 will significantly increase. Projections from the Congressional Budget Office predict that federal spending for people age 65 or older will account for 50 percent of all federal noninterest spending by 2049.⁶ However, the generational decline in social capital experienced by baby boomers compared to their parents suggests that baby boomers will have thinner social networks to care for them in old age.

Social Capital. In his exposition on the decline of social connectedness, Robert Putnam, in *Bowling Alone*, defines social capital as the “social networks and norms of reciprocity and trustworthiness that arise from them.”⁷ Putnam’s theory of social capital is grounded on the premise that relationships have tangible value—just as physical and human capital do—and even have a powerful impact on well-being and quality of life.

Putnam forcefully asserts the positive connection between social capital and health outcomes: “The evidence for the health consequences of social connectedness is as strong today as was the evidence for the health consequences of smoking at the time of the first surgeon general’s report on smoking.”⁸ Further research has affirmed this association between higher levels of social capital and better self-rated health⁹ and positive health outcomes.¹⁰

By using HRS data linked with traditional Medicare beneficiary claims between 2008 and 2015, Hanna Zlotnick et al. found that strong networks can serve a protective role against hospital readmission.¹¹ Using the same dataset, Jonathan Shaw et al. found that objectively isolated individuals incur higher Medicare costs than similar individuals with stronger networks.¹² This literature suggests that individuals’ social networks may affect their health care utilization and expenditures.

Fertility and Nursing Home Admission. Baby boomers had a lower fertility rate and a higher divorce rate than the silent generation did—the preceding generation—which may have long-term consequences for caregiving, as both spouses and children are important sources of eldercare.¹³ The average baby boomer had two kids, while the average person in the silent generation had three kids. Due to the increasing size of the elderly population, this decrease in fertility is likely to drive demand for long-term care services beyond what was expected.

Using HRS data from 1992 to 1994, Gal Wettstein and Alice Zulkarnain’s two-stage least squares model finds that for individuals with two or more limitations on activities of daily living (ADLs), having one fewer child leads to a 17 percent increase in the probability of using a nursing home (from a baseline of 10.7 percent) in a two-year period.¹⁴ However, these results cannot be generalized to the entire population because they are contingent on the respondent having difficulty with basic functions and activities.¹⁵

Having adult children reduces the risk of entering a nursing home for women, but it only buffers the risk for men following the death of a spouse. In fact, according to Claire Noël-Miller, the risk of nursing home entry doubled for men following a spousal death but was unchanged for women in the same situation.¹⁶ This finding suggests that men rely primarily on their wives for informal caregiving, while women rely heavily on adult children even when their husbands are present. This indicates that retiring baby boomers may demand more institutionalized care.

Using seven waves of biennial HRS data, Michael Hurd, Pierre-Carl Michaud, and Susann Rohwedder find that the percentage of people expected to spend time in nursing homes is significantly higher than the numbers estimated in the current literature.¹⁷ The divergence in results may be partially explained by the prevalence of shorter nursing home stays and their study’s use of data from more recent cohorts and exit interviews.¹⁸

Medicaid, Medicare, and Long-Term Care Insurance. Elderly individuals constitute a substantial portion of Medicaid beneficiaries and are the

primary constituency for Medicare.¹⁹ Medicaid assists the majority of nursing home residents, which crowds out demand for long-term care insurance (LTCI).²⁰ Despite the high cost of nursing homes, only 10 percent of individuals buy LTCI.²¹

Jeffrey Brown and Amy Finkelstein suggest that Medicaid imposes an implicit tax on long-term care insurance, since Medicaid would have provided 60–75 percent of the expected present discounted value of benefits that an individual of average wealth would receive through LTCI, had that individual not bought that policy.²² Their study concludes that Medicaid's income and asset spend-down requirements severely restrict consumption-smoothing over time, but because Medicaid is a payer of last resort, potential or current Medicaid beneficiaries are incentivized against buying private LTCI.²³

Jeffrey Brown, Norma Coe, and Amy Finkelstein find that if every state had the most stringent Medicaid eligibility requirements, LTCI demand would increase 2.7 percentage points from a baseline of 9.1, but the vast majority of elderly individuals would still be without insurance even with these changes.²⁴ A weakness of the study is that it assumes individuals automatically enroll in Medicaid upon becoming eligible rather than accounting for the different utility individuals expect to draw from the program.

Geena Kim accounts for the heterogeneity of medical preferences in her model when testing the crowd-out effects of Medicaid.²⁵ Kim found that an estimated 82.5 percent of the sample had a negative preference for being in Medicaid, which results in less crowding out of the LTCI market. The study concludes that removing Medicaid has a positive effect on savings, increasing median assets by 15.3 percent and decreasing the use of nursing homes.

These results cannot be generalized to the entire population because only unmarried elderly women living in California, Florida, Michigan, and Texas were used in the study. However, even though the sample included only a subset of the population, these results imply that decreased nursing home use may increase the use of informal care or home and community-based services.²⁶

This theory supports the finding that the amount of formal care available influences the amount of informal care provided to the elderly rather than the reverse.²⁷ Alberto Holly et al. theorize that since publicly provided care in the United States is restricted to Medicare and Medicaid, adult children wait and see if formal care will be provided before deciding about informal care.

Substitution of Formal Care. The literature suggests that informal care is a net substitute for formal care.²⁸ Corina Mommaerts found that living in a state with a Medicaid spend-down provision decreases the prevalence of co-residence with adult children by 1–4 percentage points,²⁹ which indicates that Medicaid eligibility requirements have a substantial impact on living arrangements, care utilization patterns, and Medicaid expenditures. Mommaerts uses within-state variation to conclude that adults are price sensitive to changes in long-term care costs and substitute away from formal care when it becomes more expensive.³⁰

When testing and controlling for endogeneity, Courtney Harold Van Houtven and Edward Norton find informal care by children is a net substitute for home health care, nursing home care, and hospice care.³¹ These authors reproduced their paper several years later by using Medicare expenditures instead of utilization patterns. They find the presence of informal care has a strong negative effect on the probability of incurring Medicare-financed home health and skilled nursing care expenditures.³²

A common weakness in the literature includes its reliance on self-reported and reported-by-proxy health and financial data. In particular, proxies are less likely to detect granular functional status changes in proxy respondents.³³

This report looks at social determinants of formal care use and the substitution between paid caregivers and unpaid caregivers. It addresses how this informal care use interacts with government insurance programs, which pay substantial portions of long-term care services for individuals in old age and which the current literature does not explore. Furthermore, it concludes with private and public policy

recommendations to provide a holistic perspective on how communities and civil society can prepare for and address these developments.

Data and Summary Statistics

This report on the relationship between social capital and the use of informal and formal care uses the 1992–2014 waves of the RAND HRS Longitudinal File and the Harmonized HRS supplement.³⁴ These are derived from the HRS conducted by the Institute for Social Research at the University of Michigan, which is a longitudinal household survey of individuals over age 50 and their spouses.

The HRS surveys 22,000 individuals biennially on health care, health insurance, family structure, retirement plans, and retirement expectations to gather information on the aging population.³⁵ The RAND HRS Longitudinal File and Harmonized HRS supplement streamline and standardize variables across waves, which enables this report to evaluate determinants of formal care use through fixed and random-effects logistic and ordinary least squares (OLS) regressions from every harmonized wave of HRS data.

Summary Statistics. To evaluate the changing relationship of informal and formal care among different birth cohorts, I created a variable to group HRS respondents by their birth cohort as outlined by the Pew Research Center, which conducts extensive generational analysis.³⁶ Respondents born in 1927 or before ($n = 97,847$) are in the greatest generation and have been in every wave of the HRS. Respondents born between 1928 and 1945 ($n = 98,685$) are in the silent generation and started being interviewed in 1998. Respondents born between 1946 and 1964 ($n = 145,739$) are baby boomers and were introduced to the HRS in 2004.

Now that every baby boomer is eligible for the HRS, they make up the largest cohort with 42.58 percent of the sample. To control for respondents who need a certain level of help in their day-to-day lives, only respondents with either one ADL or instrumental activity of daily living (IADL) are included in the sample.³⁷

Covariates. Several covariates, which I discuss below, are presented in Table 1.

Marital Status. Most baby boomers and members of the silent generation are married (62.19 percent and 52.46 percent, respectively), while most of the greatest generation is widowed (54.30 percent). The percentage of people cohabitating rose significantly from less than 1 percent for the greatest generation to 8.73 percent for baby boomers. About one in five baby boomers are either divorced or separated, while one in 20 of the greatest generation is divorced or separated. Additionally, 8.81 percent of baby boomers never married compared to 2.61 percent for the greatest generation and 3.62 percent for the silent generation.

Living Situation. The percentage of the greatest generation that lives alone (41.87 percent) is more than that of the silent generation (19.28 percent) and baby boomers (18.10 percent) combined, likely because more than half of the greatest generation is widowed. Interestingly, more members of the silent generation live with their spouses than members of the greatest generation or baby boomers do. The rates of living with children alone decrease across cohorts but are not especially pronounced within any cohort. About a quarter of baby boomers still live with both their spouse and children, likely because they still have dependents in their household (rather than adult children caring for them).

Number of People in Household. The vast majority of greatest generation households have only one or two people living in them (82.29 percent). Younger households in the sample tend to be larger, with 42.13 percent of baby-boom households having three or more people. The percentage of households with three or more people decrease for the silent generation (32.89 percent) and even more so for the greatest generation (17.71 percent).

Number of Living Siblings. The majority of the greatest generation have either zero or one living sibling, while the majority of baby boomers have three or more siblings. Members of the silent generation split

Table 1. Summary Statistics Across Waves of HRS with at Least One ADL or IADL (1992–2014)

Birth Cohort Across Waves			
Greatest Generation		28.59%	
Silent Generation		28.83%	
Baby Boomers		42.58%	
	Greatest Generation	Silent Generation	Baby Boomers
Marital Status			
Married	37.00%	62.19%	52.46%
Partnered	0.78%	2.74%	8.73%
Divorced or Separated	5.31%	14.48%	22.56%
Widowed	54.30%	16.97%	7.45%
Never Married	2.61%	3.62%	8.81%
Observations	19,138	32,207	11,425
Respondent's Living Situation			
Lives Alone	41.87%	19.28%	18.10%
Lives with Spouse	28.77%	39.92%	29.61%
Lives with Kids Only	11.06%	7.25%	6.84%
Lives with Both Spouse and Children	4.31%	18.20%	21.91%
Lives with Other People	13.99%	15.34%	23.54%
Observations	18,710	30,503	9,138
Number of People in Household			
One	42.61%	20.43%	20.35%
Two	39.68%	46.69%	37.52%
Three	10.23%	16.99%	18.91%
Four or More	7.48%	15.90%	23.22%
Observations	19,153	32,235	11,442
Number of Living Children			
Zero	10.90%	7.00%	9.16%
One	15.28%	8.54%	11.37%
Two	23.86%	22.26%	23.72%
Three	18.35%	19.33%	19.23%
Four	11.65%	15.52%	14.37%
Five or More	19.96%	27.35%	22.15%
Observations	18,896	31,864	11,207

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Table 1. Summary Statistics Across Waves of HRS with at Least One ADL or IADL (1992–2014) (continued)

Number of Living Siblings			
Zero	33.59%	13.28%	6.47%
One	25.37%	20.28%	13.50%
Two	16.67%	18.71%	15.75%
Three	10.15%	14.06%	15.65%
Four	5.78%	10.58%	13.03%
Five or More	8.43%	23.10%	35.61%
Observations	18,923	31,459	11,377

Source: Author’s calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

the difference, with 33.56 percent having one living sibling or fewer, 32.77 percent having two or three siblings, and 33.68 percent having five or more.

Informal and Formal Care Variables. According to Table 2, the greatest generation uses paid helpers more than any other cohort. Later generations receive help from their spouses at higher rates and for more days. This may be partially explained by the fact that the majority of respondents in the greatest generation are widowed.

Respondents in the greatest generation are assisted by their children more often and for more time. The vast majority of respondents have some type of unpaid assistance, with 94.16 percent of baby boomers, 92.22 percent of the silent generation, and 88.45 percent of the greatest generation using unpaid help. More respondents in the greatest generation reported staying overnight in a hospital (48.86 percent), having stayed in a nursing home (29.58 percent), and having used in-home health services (47.12 percent).

When evaluating self-reported feelings of connection to those around them, baby boomers answered that they often lacked companionship, felt left out, and felt isolated; these were all at higher rates than the greatest generation or the silent generation. In terms of government health insurance programs, the vast majority of the greatest generation (96.88 percent) are covered by Medicare, whereas only

50.38 percent of the silent generation and 35.42 percent of baby boomers are covered. Most respondents from all three generations are not covered by Medicaid, though at 26.47 percent, baby boomers are covered by Medicaid more often than older cohorts.

Methods

The goal of this report is to look at how individuals’ family and social networks affect their use of paid formal care. The benefit of using the HRS is the ability to control for unobserved heterogeneity in respondents when analyzing panel-level data.

I use the following several fixed and random effects regressions to evaluate the probability that an individual’s use of informal caregivers will be affected by the function’s covariates. As such, I first use the following OLS model:

$$Y_{it} = u_t + \beta x_{it} + \gamma z_i + \alpha_i + \varepsilon_{it}$$

This OLS model analyzes the total number of observations across the 10 waves of data, where u_t is the wave in which a given respondent’s interview took place. x_{it} is for time-variant independent variables, including housing situation, marital status, children, hospital stays, nursing home stays, household income, arthritis, psychiatric problems, stroke, heart

Table 2. Summary Statistics Across Waves of Sample with at Least One ADL or IADL (1994–2016)

	Greatest Generation	Silent Generation	Baby Boomers
Percentage of Respondents Who Receive Any Professional Help	20.69%	11.91%	4.43%
Percentage of Respondents Who Are Helped by Their Spouse	28.43%	51.99%	56.79%
Average Number of Days That Spouse Helps Respondent per Week	1.37	2.57	2.42
Average Number of Kids Who Help Respondent	3.14	2.32	1.88
Average Number of Days That Kids Help Respondent per Week	0.89	0.78	0.67
Number of Others Who Help Respondent (Unpaid)	0.37	0.29	0.39
Average Number of Days That Others Help Respondent (Unpaid) per Week	1.27	0.84	0.96
Percentage of Respondents with Any Unpaid Help	88.45%	92.22%	94.16%
Percentage of Respondents Who Have Stayed Overnight in the Hospital in the Previous Two Years	48.86%	33.03%	37.73%
Percentage of Respondents Who Have Stayed in a Nursing Home in the Past Two Years	29.58%	13.30%	12.71%
Percentage of Respondents Who Have Used In-Home Care Services in the Past Year	47.12%	45.15%	38.09%
Percentage of Respondents Who Lack Companionship	17.78%	16.43%	22.64%
Percentage of Respondents Who Feel Left Out	8.94%	10.98%	19.02%
Percentage of Respondents Who Feel Isolated from Others	10.50%	11.01%	20.42%
Percentage of Respondents Who Feel They Can Rely on Their Children for a Serious Problem	79.49%	62.38%	47.63%
Percentage of Respondents Who Feel They Can Rely on Their Friends for a Serious Problem	34.41%	37.00%	33.25%
Percentage of Respondents Covered by Medicare	96.88%	50.38%	35.42%
Percentage of Respondents Covered by Medicaid	20.68%	14.99%	26.47%

Source: Author's calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

conditions, lung problems, cancer, diabetes, high blood pressure, and enrollment in Medicare or Medicaid. γz_i is for time-invariant independent variables, including education, birth cohort, race, and gender.

With the same variables in the fixed effects model, I use the following regression for the random effects OLS regression:

$$Y_{it} = u_{it} + \beta x_{it} + c_i$$

Here, the time-invariant and time-variant independent variables are not treated differently. c_i is used to treat unobservable characteristics with a fixed parameter for each unit. The binary variable used for professional help records only whether the respondent uses paid help (1) or does not (0). The logistic model gives an odds ratio for the probability that, given the model's covariates, the respondent will use paid formal care. The variable *formalcare* measures whether the respondent receives help from an employee of an institution, a paid helper, or any other kind of professional help. Here is my fixed effects logistic regression model:

$$\Pr(\text{formalcare} = 1) = \frac{\exp(\alpha_i + x_{it}\beta)}{1 + \exp(\alpha_i + x_{it}\beta)}$$

The odds ratio is the exponentiation of my time-variant independent variables' coefficients—living situation, marital status, health conditions, government insurance, and hospital and nursing home use—plus the random error term.

I also use a random effects logistic model to evaluate the effect of time-invariant independent variables across the 10 waves of data using the following regression:

$$\log \left\{ \frac{\Pr(\text{formalcare}_{ij}) = 1}{1 - \Pr(\text{formalcare}_{ij}) = 1} \right\} = x_{ij} + \beta + v_i$$

For the random effects logistic regression, the probability is given of whether the respondent i has formal care in wave j . I add the regression coefficients for the observations of each wave to the random subject effects of the distribution to get the odds ratio.

Overall, the random effects models are more efficient because they account for between-group variation, but the fixed effects models handle unobserved heterogeneity and have smaller standard errors.

Results

Table 3 uses both a fixed and a random effects OLS regression to analyze the relationship between having paid professional caregivers and having informal caregivers. The dependent variable (total informal care) is the aggregate number of friends and family who assist the respondent, while formal care indicates the presence or absence of paid formal care.

The fixed effects regression is used to hold constant for unobserved time-invariant variables; however, it washes out the effects of the respondent's birth cohort. Fixed effects and random effects are used to pick up within-group variation and between-group variation, respectively. According to the fixed effects model, a given individual who uses a paid helper will have 1.26 fewer caregivers, while the random effects model states that an individual with a paid helper will have 1.10 fewer unpaid caregivers.

Members of the silent generation have 1.10 fewer caregivers than members of the greatest generation, while baby boomers have 1.64 fewer caregivers than members of the greatest generation. When looking at demographic variables in Table 3, education has a slight depressing effect on the number of caregivers, while non-Whites have higher levels of informal caregiving.

Table 4 uses a fixed effect and random effects logit model for analyzing use of paid help while controlling for housing situation and birth cohort. The logit model uses odds ratios, rather than coefficients, to state the effects of the covariates on use of paid formal care.

When looking at the fixed effects model, the odds ratio indicates that an individual living with a spouse has a 65 percent lower likelihood they will use paid formal care than a respondent who lives alone. The odds that a respondent living with their kids will use paid formal care are 42 percent lower than someone who lives alone. Someone living with their kids and spouse has a 77 percent lower likelihood of using

Table 3. Fixed and Random Effects OLS Regression of Total Number of Informal Caregivers

	Total Number of Informal Caregivers			
	Fixed Effects		Random Effects	
	Coefficient	Standard Error	Coefficient	Standard Error
Formal Care	-1.26	(0.09)***	-1.10	(0.07)***
Birth Cohort				
Silent Generation			-1.10	(0.07)***
Baby Boomer			-1.64	(0.10)***
Race				
Black/African American			0.78	(0.07)***
Other			0.56	(0.11)***
Children	-0.09	(0.07)	0.28	(0.02)***
Gender (Female)			1.30	(0.06)***
Education				
GED			-0.54	(0.13)***
High School Graduate			-0.34	(0.07)***
Some College			-0.39	(0.08)***
College Graduate			-0.57	(0.10)***
Stayed in Hospital	0.35	(0.06)***	0.48	(0.05)***
Stayed in Nursing Home	-0.35	(0.09)***	-0.55	(0.07)***
Medicaid	-0.19	(0.09)**	0.20	(0.05)***
Medicare	-0.08	(0.10)	0.16	(0.07)**

Note: All models are controlled for household income, arthritis, psychiatric problems, stroke, heart condition, lung problems, cancer, diabetes, and high blood pressure. The robust standard error, clustered at the household level, is in parentheses. *** p < 0.01, **p < 0.05.

Source: Author's calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

paid formal care, and someone who lives with other people has a 54 percent lower likelihood of using paid formal care.

Both the fixed and random effects models indicate that people in old age who live alone use paid care at higher rates, which supports the theory of this report that cohorts with thinner familial and social networks

are more likely to use formal care. Excluding those who live alone, respondents who live with only their kids have the highest odds of using paid help.

One reason for this could be that a parent who lives with only their children is older and needs more medical attention. Depending on the parent's health conditions and whether their children work full-time,

Table 4. Fixed Effects and Random Effects Logit Model of Use of Formal Care

	Use of Formal Care			
	Fixed Effects		Random Effects	
	Odds Ratio	Standard Error	Odds Ratio	Standard Error
Living Situation				
Lives with Spouse Only	0.35	(0.07)***	0.21	(0.02)***
Lives with Kids Only	0.58	(0.12)***	0.40	(0.04)***
Lives with Kids and Spouse	0.33	(0.12)***	0.19	(0.03)***
Lives with Other People	0.46	(0.08)***	0.39	(0.03)***
Birth Cohort				
Silent Generation			0.40	(0.03)***
Baby Boomer			0.09	(0.01)***
Race				
Black/African American			0.98	(0.08)
Other			1.24	(0.19)
Children	0.91	(0.11)	0.90	(0.02)***
Gender (Female)			1.05	(0.08)***
Education				
GED			1.02	(0.18)
High School Graduate			1.22	(0.10)**
Some College			1.27	(0.12)**
College Graduate			2.24	(0.25)***
Stayed in Hospital	1.16	(0.11)	1.07	(0.05)***
Stayed in Nursing Home	5.11	(0.57)***	14.60	(1.06)***
Medicaid	2.39	(0.30)***	3.25	(0.22)***
Medicare	0.96	(0.19)	1.27	(0.15)**

Note: All models are controlled for wave, household income, arthritis, psychiatric problems, stroke, heart condition, lung problems, cancer, diabetes, and high blood pressure. The robust standard error, clustered at the household level, is in parentheses. *** p < 0.01, ** p < 0.05.

Source: Author's calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

children may need additional paid help for their elderly parents. On the other hand, if a parent lives with both a spouse and children, they have both children and a spouse to assist with an ADL or IADL. The parent in this case may also just not need as much care if they are relatively younger and have children in the house.

Table 4 shows that the silent generation is 60 percent less likely to use formal care, while baby boomers are 91 percent less likely to use formal care. This model indicates that even when controlling for various health conditions and demographic variables, the greatest generation uses the most paid formal care. Respondents with more education use more paid care: College graduates are 124 percent more likely to use paid care than someone with less than a high school diploma.

When looking at respondents enrolled in government insurance programs, users of Medicaid—and to a lesser extent Medicare—use paid formal care more often than those who are not covered. This is interesting because Medicare covers the vast majority of those in old age, who are presumably at their sickest, but Medicaid does not, and their beneficiaries skew younger.

In Table 5, the regressions take into account marital status and birth cohort when looking at the total number of informal caregivers. When accounting for marital status and looking at birth cohorts, members of the silent generation and baby boomers have respectively 0.54 and 0.70 fewer caregivers than the greatest generation has.

The random effects model is the more helpful model when looking at marital status because it takes into account time-invariant effects, while the fixed effects model details within-group variation across waves. If a respondent is married across every wave of the survey, the effect of having a spouse will not show up in the fixed effects, but if a respondent separates from their spouse or is widowed in between a survey wave, the fixed effects pick this change up.

In the random effects model, respondents who have never been married, are separated or divorced, or are widowed have more total informal caregivers than those who are married. An individual who

is widowed has the biggest difference, with approximately two more informal caregivers. These results suggest that being married depresses the number of informal caregivers assisting the respondent yet having more living children increases the number. For a given individual, each additional child increases their number of caregivers by 0.32.

According to Table 6, respondents who are separated or divorced, widowed, or never married have much greater odds of using paid care compared to those who are married. Individuals who are separated or divorced have a 192 percent greater likelihood of having paid formal care. Those who are widowed have a 222 percent higher likelihood of using paid care, and those who have never married have a 240 percent higher likelihood of using paid care.

Consistent with Table 4, members of the silent generation and baby boomers have lower odds of using paid care; they are respectively 67 percent and 92 percent less likely to use paid formal care compared to the greatest generation. Individuals who are covered by either Medicaid or Medicare have much higher rates of using paid formal care than those who are not.

Table 7 uses the same logistic regression as Table 6 does but only includes respondents who are between the ages of 75 and 85. By limiting the age of the respondents in the regression, we can focus on people who are at roughly the same place in terms of eldercare needs.

The inability to look at the greatest generation at younger ages and the baby boomers at older ages in the HRS puts a limitation on the study. But by only looking at a subset of respondents (between 75 and 85 years old), this regression can differentiate between the life cycle effects of health care utilization—that older people need more informal and formal help—and the generational effects (in which the family and social networks of younger generations look decidedly different than those of older generations, which may affect their health care utilization).

On the whole, the results in Table 7 are not significantly different than those in Table 6, which does not limit age. The exception is that when looking at birth cohort, the effect on use of professional

Table 5. Fixed and Random Effects OLS Regression of Total Informal Care and Marital Status

	Total Informal Care			
	Fixed Effects		Random Effects	
	Coefficient	Standard Error	Coefficient	Standard Error
Marital Status				
Partnered	0.08	(0.29)	-0.17	(0.12)
Separated or Divorced	0.79	(0.22)***	1.19	(0.09)***
Widowed	1.33	(0.16)***	1.93	(0.07)***
Never Married	0.75	(0.36)**	0.77	(0.12)***
Birth Cohort				
Silent Generation			-0.54	(0.07)***
Baby Boomer			-0.70	(0.10)***
Race				
Black/African American			0.61	(0.08)***
Other			0.50	(0.13)***
Children	-0.04	(0.09)	0.32	(0.02)***
Gender (Female)			0.72	(0.06)***
Education				
GED			-0.48	(0.12)***
High School Graduate			-0.29	(0.07)***
Some College			-0.32	(0.08)***
College Graduate			-0.48	(0.09)***
Stayed in Hospital	0.37	(0.06)***	0.51	(0.04)***
Stayed in Nursing Home	-0.79	(0.09)***	-1.13	(0.06)***
Medicaid	-0.34	(0.10)***	-0.05	(0.06)
Medicare	-0.02	(0.11)	0.11	(0.06)

Note: All models are controlled for wave, household income, arthritis, psychiatric problems, stroke, heart condition, lung problems, cancer, diabetes, and high blood pressure. The robust standard error, clustered at the household level, is in parentheses. *** $p < 0.01$, ** $p < 0.05$.

Source: Author's calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

Table 6. Random Effects of Professional Help and Marital Status

	Random Effects	
	Odds Ratio	Standard Error
Marital Status		
Partnered	0.91	(0.23)
Separated or Divorced	1.92	(0.21) ^{***}
Widowed	2.22	(0.18) ^{***}
Never Married	2.40	(0.38) ^{***}
Birth Cohort		
Silent Generation	0.37	(0.03) ^{***}
Baby Boomer	0.08	(0.01) ^{***}
Race		
Black/African American	0.94	(0.08)
Other	1.23	(0.18)
Children	0.88	(0.02)
Gender (Female)	1.11	(0.08)
Education		
GED	1.03	(0.17)
High School Graduate	1.24	(0.10) ^{***}
Some College	1.30	(0.13) ^{***}
College Graduate	2.30	(0.26) ^{***}
Stayed in Hospital	1.03	(0.06)
Stayed in Nursing Home	17.77	(1.30) ^{***}
Medicaid	3.51	(0.24) ^{***}
Medicare	1.30	(0.15) ^{**}

Note: All models are controlled for wave, household income, arthritis, psychiatric problems, stroke, heart condition, lung problems, cancer, diabetes, and high blood pressure. The robust standard error, clustered at the household level, is in parentheses. *** $p < 0.01$, ** $p < 0.05$.

Source: Author's calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

Table 7. Random Effects of Marital Status on Professional Help Usage Among 75- to 85-Year-Olds

	Random Effects	
	Odds Ratio	Standard Error
Marital Status		
Partnered	1.03	(0.50)
Separated or Divorced	1.80	(0.35)***
Widowed	1.88	(0.23)***
Never Married	2.35	(0.70)***
Birth Cohort		
Silent Generation	1.91	(0.22)***
Race		
Black/African American	0.82	(0.12)
Other	1.74	(0.45)
Children	0.93	(0.03)
Gender (Female)	1.20	(0.14)
Education		
GED	0.92	(0.26)
High School Graduate	1.31	(0.17)**
Some College	0.99	(0.17)
College Graduate	1.81	(0.33)***
Stayed in Hospital	1.13	(0.11)
Stayed in Nursing Home	15.38	(1.89)***
Medicaid	3.23	(0.37)***
Medicare	0.98	(0.26)

Note: All models are controlled for household income, arthritis, psychiatric problems, stroke, heart condition, lung problems, cancer, diabetes, and high blood pressure. The robust standard error, clustered at the household level, is in parentheses. *** $p < 0.01$, ** $p < 0.05$.

Source: Author's calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

care has completely changed. Members of the silent generation are 90 percent more likely to use professional care than is the greatest generation when looking at a subset of respondents based on age. Baby boomers are not considered in this regression because even the oldest baby boomers had not reached their 70s in 2014, the last wave used in the paper. This is a remarkable finding and suggests that generation membership affects professional care usage and not just life cycle, which supports the thesis that baby boomers will demand more professional care as they age.

Limitations

Unfortunately for the purpose of this report, the HRS does not capture the same ages of all generations, since the youngest baby boomers are not yet 65. But the youngest members of the silent generation were already in their mid- to late 60s in the first HRS wave. The greatest generation started being surveyed while already in old age, while the silent generation and the baby boomers were introduced at 50 years old. This presents a limitation since the baby boomers are just entering into retirement. This means their formal and informal care needs may be low compared to the care needs captured in the HRS for the silent generation and the greatest generation.

Additionally, the RAND HRS Longitudinal File and the Harmonized HRS supplement do not have some of the questions on social capital that the biennial HRS does, particularly on nonfamily relationships and social networks such as church attendance, volunteering behavior, and whether a friend lives in the neighborhood. The harmonized files were chosen for this report because they standardize HRS variables across each wave of the survey, enabling panel data analysis to be done across several decades. However, the questions on the RAND HRS and the Harmonized HRS focus much more on family relationships than on other social connections. Further study using non-harmonized HRS data or another dataset with wider questions on the nature of social capital and the use of informal and

formal care would be a valuable contribution to the literature and expand on this analysis.

Policy Recommendations

Much ink has been spilled in the past couple years about making economic and labor public policy more pro-family. However, the discussion has focused exclusively on how to support working and stay-at-home parents rather than thinking in terms of a more holistic timeline of caregiving responsibilities, from providing for children to caring for the elderly.

Although the situation will vary from person to person, most Americans will go through a similar routinized life cycle of caregiving responsibilities. Generations ago, the life cycle of caregiving for the elderly was straightforward for the majority of US households: Men were primary breadwinners, and women would stay home and care for children (and eventually parents). However, this will not be the case for most current households, at least for the foreseeable future.³⁸ Below are ideas and recommendations for policy, business, and civil society that aim to create more flexibility for caregivers and support for the elderly.

Business. Businesses have a role in enabling a company culture that is supportive of caregivers. In response to the Harvard Business School Project on Managing the Future of Work survey, 73 percent of employees report having some type of caregiving responsibly.³⁹ This may include childcare, eldercare, or, for an increasing number of Americans in the “sandwich generation,” both.

Especially in the competitive market for high- and even middle-skilled labor, companies can reduce turnover and increase productivity by factoring personal caregiving responsibilities into benefits packages, promotional paths, and job expectations. The Harvard Business School survey found that 32 percent of all employees voluntarily left a job during their career due to caregiving responsibilities, with one-third of these employees leaving to take care of an elder with daily assisted living needs.⁴⁰

US businesses face challenges on two main fronts in the coming years: (1) The working population will shrink, tightening the labor market, while (2) the growing intensity and length of caregiving responsibilities will be placed on the working population.⁴¹ This caregiving burden may disproportionately fall on women, who historically have administered the majority of informal care yet are now entering the workforce with higher levels of education.⁴²

Caregiving dynamics come with a multiplicity of trade-offs depending on one's family situation, but a work environment and culture that allows more flexibility for workers' caregiving responsibilities could lower the various opportunity costs for those who juggle work and caregiving responsibilities. Workers who do take time off to care for family often have a difficult time reentering the workforce, putting greater pressure on the decision to exit the labor force in the first place.

Reducing the penalty around transitioning out of the labor market for caregivers and making more options for part-time work available can enable businesses to pick up talent while enabling workers to devote additional time to caregiving responsibilities. For businesses, addressing the needs of those with both caregiving and formal work responsibilities can preserve institutional knowledge, reduce turnover, and minimize productivity loss.

Public Policy. As demand for nursing homes and assisted living facilities will likely increase, tensions may arise over zoning permits in residential areas. Zoning restrictions vary considerably by municipality, but those that zone nursing homes out of residential areas put upward pressure on the price of patient care by restricting facilities to more expensive commercial districts. Alternatively, if nursing facilities are pushed beyond metropolitan areas, residents will be further isolated from their communities.⁴³

Municipalities may have restrictions on how to convert old buildings into nursing facilities that prohibit innovation with existing infrastructure. However, an area of promise during the COVID-19 pandemic has been the uptick in hotels being converted into assisted living facilities,⁴⁴ a result of distress in the hospitality industry over the past year.

In some cases, hotels with wide hallways; kitchens; heating, ventilating, and air-conditioning systems; and technology platforms that are up to code would be an ideal and innovative option for an independent living facility.

Yet the process of getting municipal authorities to approve design plans and rezone hotels for another use can take up to a year.⁴⁵ Planning boards should ease the process of repurposing hotels to senior living facilities to enable communities to adapt to changing demographics and be more age friendly.

Civil Society. Social-capital building is needed at the local level to integrate seniors into the community. To address the increase of single-person households and the emergence of “elder orphans”—those without children or a spouse—churches, local organizations, and local municipalities should exercise creativity in facilitating intergenerational engagement. For those with less family nearby, more help from neighbors, friends, and fellow congregants will be needed.

Ministries in churches have a role to play in facilitating engagement across generations. Numerous localities have experimented with making their communities more senior friendly and facilitating connections between and within generations. For example, in Swampscott, Massachusetts, one building houses both the new high school and new senior center. The Swampscott Senior Center has a distinct facility adjacent to Swampscott High School, but its operational focus is on intergenerational learning and volunteering.⁴⁶

The Swampscott example highlights how teenagers and twentysomethings are possibly the best positioned to assist the elderly in their community—with the most disposable time and the least caregiving responsibilities—yet are unlikely to frequently encounter elderly people outside those in their family.

Through the Older Americans Act, municipalities can use state grant money to build senior centers with a focus on multigenerational programming, as San Diego, California, has done. Georgetown, Texas, has taken an even more comprehensive approach to promoting intergenerational programming by renovating the historic downtown as a gathering place for all ages and building a dual teen and senior center.⁴⁷

As a whole, none of these are a silver bullet for addressing the needs of a rapidly growing elderly population with a shrinking non-elderly population, but they serve to highlight the reality that confronting these challenges will be a multifaceted endeavor. Caring for the needs of the elderly includes caring for their social, spiritual, and mental well-being.

Discussion and Conclusion

Over the past several decades, social scientists have worked to understand how the nature of relationships affects seemingly disparate areas of communal life, including health, economic, and political outcomes. In this report, I have built on the research findings of Putnam and the JEC, which highlighted the problem of decreasing social capital in the United States and its potential consequences.⁴⁸

Recent analyses of community life and social capital, such as Charles Murray's *Coming Apart* and Timothy P. Carney's *Alienated America*, contribute to this finding but focus on the degree to which the decline in social capital has been uneven across communities.⁴⁹ Murray focuses on the cultural divergence of the "SuperZips"—the most educated and wealthy ZIP codes in the country—from the rest of the United States, in particular working-class communities. While Carney discusses communities that typify the SuperZip model, such as Chevy Chase, Maryland, he also includes a broader discussion of social capital oases.

As part of this broader discussion, Carney examines Dutch communities in the upper Midwest and Latter-day Saints communities in Utah that maintain a rich and vibrant community life outside of elite cities, where SuperZips are almost exclusively found. In these communities, people are more likely to be married and less likely to be divorced, and prime-age males are less likely to be out of the labor force. In addition, members of these communities have a wealth of resources that come with belonging to tight-knit groups with strong mediating institutions.

This dichotomous understanding of social capital outlined by Carney and Murray has substantial implications for research on well-being and health

care utilization among the elderly. Retirees in places like Belmont, Massachusetts, or Orange City, Iowa, have thick familial and social networks with mediating institutions that could ensure they have the same level of care as their parents and grandparents had. Alternatively, retirees with weak familial and social networks are more likely to live in close proximity to others who are isolated and alienated from the institutions of civil society.

Therefore, not all baby boomers are entering retirement with less social capital than previous generations have; rather, the difference between communities that provide ample social support for their members and those that do not has grown over the past several decades and is primed to affect the baby-boom cohort as they enter old age. Additional research should be done on the geography of social capital and the use of formal and informal care between communities and individuals.

Carney and Murray both articulate that the decline of social capital and mediating institutions in the United States has been felt most consequentially among communities rather than individuals. This report finds that those who are married use less informal and formal care, while individuals over age 50 who are not married or who live alone use higher levels of paid care. It is expected that as a larger proportion of the American population reaches old age, more health care will be demanded. But this trend will be compounded by the demographic reality that fewer baby boomers are married and more live alone than in previous cohorts. Additionally, these trends may be exacerbated as individuals who have never been married or are divorced are more likely to live in communities where this is the norm rather than the exception.

This report suggests that baby boomers are using less informal care and less paid care than the silent generation did and the greatest generation did, but unlike these two generations, the baby boomers have mostly not reached the age at which more intensive assistance and supervision are needed. The analysis here suggests that when they do reach this age, baby boomers will face unique challenges obtaining the level of informal care their parents

did, potentially putting an unanticipated strain on the health care sector and government insurance programs. Local, state, and federal authorities are ill prepared to address these issues, but these issues will only become more pertinent in the coming years as retirees comprise an increasingly greater percentage of the entire population.

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Appendix

Table A1. Summary Statistics Across Waves of Sample Without Controlling for ADLs and IADLs (1994–2016)

	Greatest Generation	Silent Generation	Baby Boomers
Marital Status			
Married	47.09%	67.47%	65.20%
Partnered	1.00%	2.77%	6.85%
Divorced or Separated	4.88%	11.69%	16.22%
Widowed	44.68%	15.13%	5.65%
Never Married	2.35%	2.93%	6.08%
Observations	52,032	126,828	65,258
Respondent's Living Situation			
Lives Alone	37.64%	18.13%	13.89%
Lives with Spouse	40.25%	50.36%	36.62%
Lives with Children Only	7.85%	5.16%	5.85%
Lives with Both Spouse and Children	4.20%	13.56%	25.73%
Lives with Other People	2.29%	6.86%	4.23%
Observations	51,330	120,582	53,134
Number of People in Household			
One	38.25%	19.28%	15.52%
Two	48.17%	55.48%	43.96%
Three	8.21%	14.00%	19.78%
Four or More	5.36%	11.23%	20.74%
Observations	52,060	126,935	65,318
Number of Living Children			
Zero	9.97%	5.97%	8.62%
One	14.21%	8.20%	11.62%
Two	24.95%	24.34%	28.89%
Three	19.24%	21.77%	20.33%
Four	12.21%	15.59%	12.94%
Five or More	19.41%	24.12%	17.60%
Observations	51,522	125,333	64,289

(continued on the next page)

Table A1. Summary Statistics Across Waves of Sample Without Controlling for ADLs and IADLs (1994–2016) (continued)

Number of Living Siblings			
Zero	28.90%	13.29%	6.20%
One	26.14%	21.90%	15.81%
Two	17.94%	20.01%	19.87%
Three	10.91%	14.54%	17.02%
Four	6.56%	9.98%	12.27%
Five or More	9.54%	20.28%	28.83%
Observations	51,684	125,701	65,129

Source: Author’s calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

Table A2. Summary Statistics Across Waves of Sample Without Controlling for ALDs and IADLs

	Percentage		
Birth Cohort Across Waves (When Taking Out Those Born After 1964)			
Greatest Generation		24.96%	
Silent Generation		36.92%	
Baby Boomers		38.11%	
	Greatest Generation	Silent Generation	Baby Boomers
Percentage of Respondents Who Receive Any Professional Help	18.90%	10.80%	4.00%
Percentage of Respondents Who Are Helped by Their Spouse	29.86%	52.5%	56.74%
Average Number of Days That Spouse Helps Respondent per Week	1.38	2.60	2.40
Average Number of Kids Who Help Respondent	3.05	2.24	1.84
Average Number of Days That Kids Help Respondent per Week	0.85	0.75	0.65
Number of Others Who Help Respondent (Unpaid)	0.35	0.28	0.39
Average Number of Days That Others Help Respondent (Unpaid) per Week	1.22	0.79	0.92
Percentage of Respondents Who Have Stayed Overnight in the Hospital in the Previous Two Years	35.46%	24.30%	18.82%
Percentage of Respondents Who Have Stayed in a Nursing Home in the Past Year	10.41%	2.64%	1.04%
Percentage of Respondents Who Have Used Home Health Care in the Past Year	15.07%	6.32%	1.08%
Percentage of Respondents Who Have Any Unpaid Help	89.21%	92.48%	94.35%
Percentage of Respondents Who Lack Companionship	11.48%	9.62%	12.43%
Percentage of Respondents Who Feel Left Out	5.42%	5.20%	8.17%
Percentage of Respondents Who Feel Isolated from Others	5.57%	5.11%	8.14%
Percentage of Respondents Who Feel They Can Rely on Their Children for a Serious Problem	80.40%	66.86%	52.80%
Percentage of Respondents Who Feel They Can Rely on Their Friends for a Serious Problem	38.35%	38.20%	37.50%
Percentage of Respondents Covered by Medicare	97.47%	55.62%	16.40%
Percentage of Respondents Covered by Medicaid	11.64%	7.54%	9.61%

Source: Author's calculations based on RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf; and University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.

Notes

1. US Census Bureau, “2020 Census Will Help Policymakers Prepare for the Incoming Wave of Aging Boomers,” December 10, 2019, <https://www.census.gov/library/stories/2019/12/by-2030-all-baby-boomers-will-be-age-65-or-older.html>.
2. US Joint Economic Committee, “An Invisible Tsunami: ‘Aging Alone’ and Its Effect on Older Americans, Families, and Taxpayers,” January 24, 2019, https://www.jec.senate.gov/public/_cache/files/a80757e0-f9a3-46f2-b85f-20839f341897/1-19-invisible-tsunami-report-pdf.pdf.
3. *What We Do Together: The State of Social Capital in America Today*, Joint Economic Committee, 115th Cong. (2017) (statement of Robert D. Putnam, Malkin Professor of Public Policy at Harvard Kennedy School), <https://www.jec.senate.gov/public/cache/files/222a1636-e668-4893-b082-418a10ofd93d/robert-putnam-testimony.pdf>.
4. US Joint Economic Committee, “An Invisible Tsunami.”
5. The Health and Retirement Study (HRS) was sponsored by the National Institute on Aging (grant number NIA U01AG009740) and conducted by the University of Michigan. The RAND HRS Longitudinal File was produced with funding and support from the National Institute on Aging and the Social Security Administration. See RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018, February 2021, https://hrsdata.isr.umich.edu/sites/default/files/documentation/other/1615843861/randhrs1992_2018v1.pdf.
6. US Congressional Budget Office, *The 2019 Long-Term Budget Outlook*, June 25, 2019, <https://www.cbo.gov/publication/55331>.
7. Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000), 19.
8. Putnam, *Bowling Alone*, 327.
9. US Congressional Budget Office, *The 2019 Long-Term Budget Outlook*.
10. Ichiro Kawachi, “Social Capital and Community Effects on Population and Individual Health,” *Annals of the New York Academy of Sciences* 896, no. 1 (December 1999): 120–30, <https://nyaspubs.onlinelibrary.wiley.com/doi/abs/10.1111/j.1749-6632.1999.tb08110.x>; Ichiro Kawachi, S. V. Subramanian, and D. Kim, “Bonding Versus Bridging Social Capital and Their Associations with Self Rated Health: A Multilevel Analysis of 40 US Communities,” *Journal of Epidemiology and Community Health* 60, no. 2 (January 13, 2006): 116, <https://jech.bmj.com/content/60/2/116>; and Carolyn Cannuscio, Jason Block, and Ichiro Kawachi, “Social Capital and Successful Aging: The Role of Senior Housing,” *Annals of Internal Medicine* 139, no. 5 (September 2, 2003): 395–99, https://www.academia.edu/22821365/Social_Capital_and_Successful_Aging_The_Role_of_Senior_Housing.
11. Hanna Zlotnick et al., “Is Social Capital Protective Against Hospital Readmissions?,” *BMC Health Services Research* 20, no. 248 (March 24, 2020): 1–9, <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-020-05092-x>.
12. Jonathan G. Shaw et al., “Social Isolation and Medicare Spending: Among Older Adults, Objective Isolation Increases Expenditures While Loneliness Does Not,” *Journal of Aging and Health* 29, no. 7 (September 17, 2017): 1119–43, <https://journals.sagepub.com/doi/abs/10.1177/0898264317703559>.
13. US Joint Economic Committee, “An Invisible Tsunami.”
14. Gal Wettstein and Alice Zulkarnain, “Will Fewer Children Boost Demand for Formal Caregiving?” (working paper, Boston College, Center for Retirement Research, Boston, MA, March 15, 2019), <https://www.pgpf.org/us-2050/research-projects/Will-Fewer-Children-Boost-Demand-for-Formal-Caregiving>.
15. Activities of daily living (ADLs) include basic functions such as walking, dressing, and bathing. Instrumental activities of daily living (IADLs) include preparing meals, taking medications, and shopping for groceries. Respondents are asked about ADLs and IADLs on the Health and Retirement Survey.
16. Claire Noël-Miller, “Spousal Loss, Children, and the Risk of Nursing Home Admission,” *Journals of Gerontology: Series B* 65b, no. 3 (May 2010): 370–80, <https://academic.oup.com/psychsocgerontology/article/65B/3/370/644118>.
17. Michael D. Hurd, Pierre-Carl Michaud, and Susann Rohwedder, “Distribution of Lifetime Nursing Home Use and of Out-of-Pocket Spending,” *Proceedings of the National Academy of Sciences of the United States of America* 114, no. 37 (September 12, 2017): 9838–42, <https://www.pnas.org/content/114/37/9838>.

18. Hurd, Michaud, and Rohwedder, “Distribution of Lifetime Nursing Home Use.”
19. Henry J. Kaiser Family Foundation, Kaiser Commission on Medicaid and the Uninsured, *Medicaid: A Primer—Key Information on the Nation’s Health Coverage Program for Low-Income People*, March 1, 2013, <https://www.kff.org/wp-content/uploads/2010/06/7334-05.pdf>; and Henry J. Kaiser Family Foundation, “An Overview of Medicare,” February 13, 2019, <https://www.kff.org/medicare/issue-brief/an-overview-of-medicare/>.
20. Jeffrey R. Brown and Amy Finkelstein, “The Interaction of Public and Private Insurance: Medicaid and the Long-Term Care Insurance Market,” *American Economic Review* 98, no. 3 (June 2008): 1083–102, https://users.nber.org/~afinkels/papers/Brown_Finkelstein_Medicaid_Dec_04.pdf; and Jeffrey R. Brown, Norma B. Coe, and Amy Finkelstein, “Medicaid Crowd-Out of Private Long-Term Care Insurance Demand: Evidence from the Health and Retirement Survey,” *Tax Policy and the Economy* 21 (2007): 1–34, <https://www.journals.uchicago.edu/doi/abs/10.1086/tpe.21.20061913>. Medicaid financially assists 70 percent of nursing home residents, according to Mariacristina De Nardi, Eric French, and John Bailey Jones, “The Effects of Medicaid and Medicare Reforms on the Elderly’s Savings and Medical Expenditures” (working paper, University of Michigan, Michigan Retirement and Disability Research Center, Ann Arbor, MI, 2010), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1710723.
21. Geena Kim, “Medicaid Crowd-Out of Long-Term Care Insurance with Endogenous Medicaid Enrollment,” *Journal of Human Capital* 12, no. 3 (Fall 2018): 431–74, <https://www.journals.uchicago.edu/doi/10.1086/698134>.
22. Brown and Finkelstein, “The Interaction of Public and Private Insurance.”
23. Brown and Finkelstein, “The Interaction of Public and Private Insurance.”
24. Brown, Coe, and Finkelstein, “Medicaid Crowd-Out of Private Long-Term Care Insurance Demand.”
25. Kim, “Medicaid Crowd-Out of Long-Term Care Insurance with Endogenous Medicaid Enrollment.”
26. Kim, “Medicaid Crowd-Out of Long-Term Care Insurance with Endogenous Medicaid Enrollment.”
27. Alberto Holly et al., “Informal Care and Formal Home Care Use in Europe and the United States” (working paper, July 1, 2010), https://www.cemfi.es/ftp/pdf/papers/wshop/Holly_seminar.pdf.
28. Courtney Harold Van Houtven and Edward C. Norton, “Informal Care and Health Care Use of Older Adults,” *Journal of Health Economics* 23, no. 6 (November 2004): 1159–80, <https://www.sciencedirect.com/science/article/abs/pii/S0167629604000852>; Courtney Harold Van Houtven and Edward C. Norton, “Informal Care and Medicare Expenditures: Testing for Heterogeneous Treatment Effects,” *Journal of Health Economics* 27, no. 1 (January 2008): 134–56, <https://www.sciencedirect.com/science/article/abs/pii/S0167629607000227?via=percent3Dihub>; and Corina Mommaerts, “Are Coresidence and Nursing Homes Substitutes? Evidence from Medicaid Spend-Down Provisions,” *Journal of Health Economics* 59 (May 2018): 125–38, <https://www.sciencedirect.com/science/article/abs/pii/S0167629617300607>.
29. Mommaerts, “Are Coresidence and Nursing Homes Substitutes?”
30. Mommaerts, “Are Coresidence and Nursing Homes Substitutes?”
31. Van Houtven and Norton, “Informal Care and Health Care Use of Older Adults.”
32. Van Houtven and Norton, “Informal Care and Medicare Expenditures.”
33. De Nardi, French, and Jones, “The Effects of Medicaid and Medicare Reforms.”
34. RAND Center for the Study of Aging, RAND HRS Longitudinal File 2018. The analyses in this report also use data or information from the Harmonized HRS dataset and Codebook, Version B as of October 2018, developed by the Gateway to Global Aging Data. The development of the Harmonized HRS was funded by the National Institute on Aging (R01 AG030153, RC2 AG036619, 1R03AG043052). See University of Southern California, Program on Global Aging, Health & Policy, Harmonized HRS, 2018, <https://g2aging.org/?section=survey&surveyid=124>.
35. The HRS was conducted in 1992, 1993, 1994, 1995, and biennially from 1996 to 2018.
36. Pew Research Center, *The Whys and Hows of Generations Research*, September 3, 2015, <https://www.pewresearch.org/politics/2015/09/03/the-whys-and-hows-of-generations-research/>.
37. Summary statistics of the full sample without controlling for ADLs and IADLs are included in the appendix.
38. Joseph B. Fuller and Manjari Raman, *The Caring Company: How Employers Can Help Employees Manage Their Caregiving Responsibilities—While Reducing Costs and Increasing Productivity*, Harvard Business School, January 17, 2019, 8, <https://www.hbs.edu/>

managing-the-future-of-work/research/Pages/the-caring-company.aspx.

39. Fuller and Raman, *The Caring Company*, 12.
40. Fuller and Raman, *The Caring Company*, 3.
41. Fuller and Raman, *The Caring Company*, 4.
42. Fuller and Raman, *The Caring Company*, 7.
43. Kimberly A. Hoffman and James A. Landon, “Zoning and the Aging Population: Are Residential Communities Zoning Elder Care Out?,” *Urban Lawyer* 44, no. 3 (Summer 2012): 629–46, https://www.morrisjames.com/media/article/63_UL%2044-3_07Hoffman.pdf.
44. Chuck Sudo, “Senior Housing Adaptive Reuse Opportunities Materialize amid Hotel Distress,” *Senior Housing News*, March 11, 2021, <https://seniorhousingnews.com/2021/03/11/senior-housing-adaptive-reuse-opportunities-materialize-amid-hotel-distress/>.
45. Sudo, “Senior Housing Adaptive Reuse Opportunities Materialize amid Hotel Distress.”
46. Sally Abrahms, “This High School Has a Senior (Citizen) Center,” AARP, January 2017, <https://www.aarp.org/livable-communities/livable-in-action/info-2017/how-why-to-create-a-shared-space-solution.html>.
47. AARP, *America’s Best Intergenerational Communities*, 2012, <https://www.aarp.org/livable-communities/learn/civic-community/info-12-2012/americas-best-intergenerational-communities.html>.
48. Putnam, *Bowling Alone*; Robert D. Putnam, “What We Do Together: The State of Social Capital in America Today,” testimony before the Joint Economic Committee, May 17, 2017, <https://www.jec.senate.gov/public/index.cfm/2017/5/the-state-of-social-capital-in-america-today>; and US Joint Economic Committee, “An Invisible Tsunami.”
49. Charles Murray, *Coming Apart: The State of White America, 1960–2010* (New York: Crown Forum, 2012); and Timothy P. Carney, *Alienated America: Why Some Places Thrive While Others Collapse* (New York: HarperCollins, 2019).