

# IS HOME EQUITY AN UNDERUTILIZED RETIREMENT ASSET?

BY STEVEN A. SASS\*

## Introduction

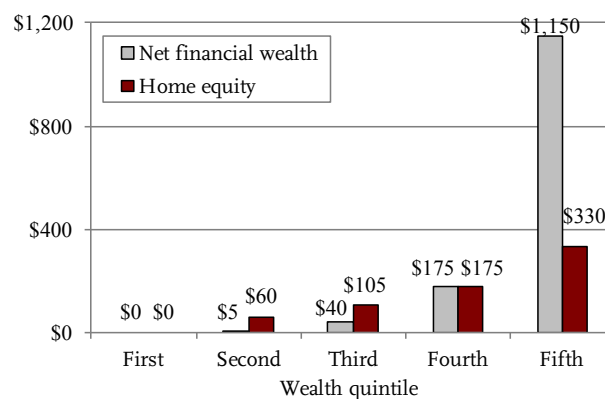
Retirement planning generally focuses on the use of financial assets. However, home equity is the largest store of savings for most households entering retirement. This *brief* reviews studies by the Social Security Administration's Retirement Research Consortium and others that assess whether home equity is an underutilized retirement asset and, if so, why.

The discussion proceeds as follows. The first section discusses how home equity differs from financial assets. The second section reviews the use of downsizing to access home equity. The third section reviews the use of reverse mortgages. The final section concludes that home equity has been an underutilized retirement asset due to behavioral and informational impediments, and that it remains to be seen whether the growing financial pressures on retirees to tap their savings will overcome these impediments.

## Home Equity Is Different

Workers enter retirement primarily holding two very different types of savings – financial assets and the equity in their home (the value of their home less any outstanding mortgage). For many households, particularly those with less wealth, home equity is larger than financial assets (see Figure 1).

FIGURE 1. MEDIAN HOME EQUITY AND FINANCIAL WEALTH OF HOUSEHOLDS AGES 65-69 IN 2012 BY WEALTH QUINTILE, THOUSANDS OF 2015 DOLLARS



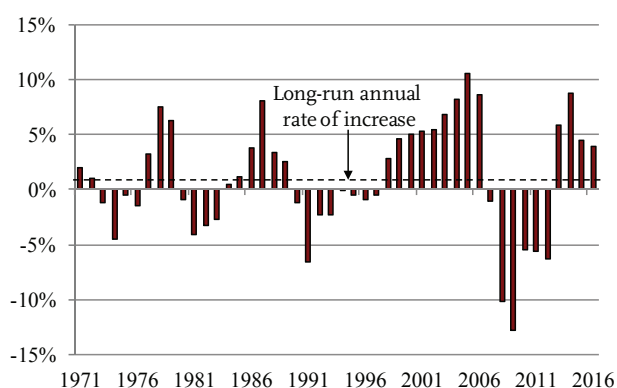
Note: See footnote 1 for definitions of the wealth measures.  
Source: Author's calculations from U.S. Board of Governors of Federal Reserve System, *Survey of Consumer Finances* (2013).

The return, or income, that financial assets produce is any increase in the price of these assets plus dividend and interest payments. The return on home equity, as detailed below, also has two parts: the rise in price of the house plus the provision of in-kind housing services.

\* Steven A. Sass is a research economist at the Center for Retirement Research at Boston College.

U.S. house prices over the past 45 years have grown about 1 percent per year above inflation, with significant volatility (see Figure 2). Gains from the sale of a house are generally tax exempt, and home equity is generally excluded from government means tests, most importantly for Medicaid eligibility.<sup>2</sup> But even considering the value of this favorable treatment, the rise in house prices remains quite modest.

FIGURE 2. ANNUAL REAL INCREASE IN U.S. RESIDENTIAL PROPERTY PRICES, 1971-2016



Source: Author's calculations using S&P/CoreLogic/Case-Shiller Home Price Indices at Shiller (2016).

Of greater significance than house price appreciation is the provision of in-kind housing services. The market rental value, called “imputed rent,” is estimated at about 3-4 percent of the value of the house, much more than the value of the rise in home prices.<sup>3</sup> Unlike interest or dividend income, imputed rent is not subject to income taxation.<sup>4</sup> The value of the in-kind services that homeownership provides goes beyond imputed rent. These services continue for as long as the retiree remains in the house, which offers valuable protection against longevity risk and rent increases; maintains connections with nearby family, friends, and community amenities; and allows the elderly to modify their home to suit their changing needs. Nakajima and Telyukova, using a structural model and data from the *Health and Retirement Study* (HRS), thus estimate that retirees value homeownership at over three times the imputed rent.<sup>5</sup>

A final difference between home equity and financial savings is liquidity. Home equity is much harder for retirees to tap; the primary ways – downsizing and a reverse mortgage – are costly and time-consuming.

## Downsizing: The Main Way Retirees Tap Home Equity

Households often enter retirement with excess housing.<sup>6</sup> Empty nests have unused space and are often located in neighborhoods best suited for a different stage of life. Such households could strengthen their finances by moving to a less expensive home. A study by Munnell, Soto, and Aubry, using a nationally representative survey of workers approaching retirement, nevertheless finds that only 3 percent plan to downsize. A study by Calvo, Haverstick, and Zhivan, using the HRS, finds that 30 percent of homeowners approaching retirement move – but that more move to a house that is *more* expensive, and that those moving to a less expensive house generally do so in response to a negative financial shock.<sup>7</sup>

Staying in a house that has more space than one needs is costly. A study by Butrica, Goldwyn, and Johnson, using the HRS’s *Consumption and Activities Mail Survey*, finds that taxes, insurance, upkeep, and utilities account for nearly 30 percent of retired homeowner expenditures.<sup>8</sup>

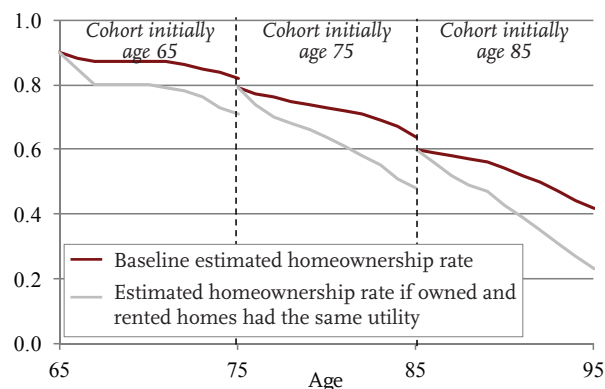
Moving to a less expensive house would allow retirees to spend more on items ranging from food and medical care to gifts and entertainment. They could also shift a portion of their savings from home equity to financial assets, which are far more liquid and offer higher financial returns. Downsizing, however, is costly. Commissions, closing costs, moving, and fixing up a new home could take 10 percent or more of the sales price.

It is not only households nearing retirement that do not downsize. Moving is more physically demanding and emotionally disruptive as retirees age, and studies by Venti, Wise, and others show that very few households downsize after they retire.<sup>9</sup> Those that do typically give up homeownership toward the end of life in response to a specific “trigger event” – primarily a medical expense shock, entry into a nursing home, or widowhood. Retirees who permanently enter a nursing home or other form of senior housing no longer need their house. Widows often need to reduce expenses as the household’s income from Social Security and defined benefit pensions declines; as their spouse’s final illness often results in a significant reduction in household wealth;<sup>10</sup> and as maintenance costs rise for survivors unable to do much maintenance themselves.

Renting also makes more sense toward the end of life, as the value of the housing services that homeownership provides over the retiree’s remaining life-

span declines relative to the value of alternative uses of the savings held as home equity. A study by Coile and Milligan nevertheless finds that widowhood alone lowers the probability of continued home ownership by only 3 percentage points; it lowers the probability by 12 percentage points if the survivor has an “activity of daily living” limitation or difficulty managing money. Absent such issues, the value retirees place on remaining in their homes, identified by Nakajima and Telyukova, significantly dampens the transition from homeownership to renting as retirees age (see Figure 3). About two-thirds of all households that enter retirement owning a home thus exit retirement owning a home.<sup>11</sup>

FIGURE 3. 10-YEAR REDUCTION IN HOMEOWNERSHIP RATES, BASELINE ESTIMATE AND IF RETIREES VALUED OWNED AND RENTED HOMES EQUALLY, BY INITIAL AGE



Source: Nakajima and Telyukova (2013a).

Potential reasons for this lack of downsizing, in addition to the high cost of downsizing and strong preference for remaining in one’s current home, include a desire to use home equity as a reserve or to leave it as a bequest.<sup>12</sup> Various non-rational behavioral impediments could also stand in the way. These include: 1) the complexity of assessing the benefits; 2) present mindedness: giving excessive weight to the near-term costs while minimizing the long-term gains; 3) endowment effects: excessively valuing what one currently has; and 4) inertia.<sup>13</sup> To the extent that this resistance is primarily behavioral, with downsizing improving the household’s well-being, home equity is an underutilized retirement asset.

## Reverse Mortgages: Tapping Home Equity Without Moving

Given the value that retirees place on remaining in their current home and the high cost of downsizing, borrowing against home equity could be a more attractive way to access these savings. Conventional mortgages and lines of credit are not especially useful for tapping home equity, however, as the amounts borrowed must be repaid with regular monthly payments.<sup>14</sup>

A reverse mortgage – a financial product specifically designed to allow older homeowners to borrow using the equity in their home as collateral – is far more attractive and accessible. The key feature of a reverse mortgage is that borrowers are not required to make any debt service payments as long as they live in the house. While borrowers need to demonstrate the ability to pay property taxes and insurance premiums, the loan must be repaid only when they move or die.

Essentially all reverse mortgages today are government-insured Home Equity Conversion Mortgages (HECMs), available to homeowners ages 62 and over.<sup>15</sup> HECM loans are typically set up as a line of credit that can be used to: 1) pay off a mortgage and other debts, eliminating debt payments; 2) cover ongoing consumption expenditures, either now or down the road; or 3) provide a reserve for medical or care expenses or for making inter-vivos transfers. The government program assures borrowers that they will get the contracted funds and assures lenders that the loan will be repaid even if the balance owed exceeds the proceeds received from the sale of the house.

To date, only about 2 percent of eligible homeowners have taken out a reverse mortgage.<sup>16</sup> Borrowers include older retirees hit by trigger events who would otherwise be forced to sell their homes and households that use the proceeds to eliminate monthly mortgage payments.<sup>17</sup> As with downsizing, possible reasons for the limited use of reverse mortgages include their cost, a desire to preserve home equity as a reserve or bequest, and non-rational behavioral and informational impediments.

In a survey of households that considered a reverse mortgage but decided not to proceed, cost was by far the most commonly cited impediment.<sup>18</sup> A HECM loan on a \$300,000 house costs about \$9,000 up-front and the interest rate on amounts borrowed

was 5.9 percent in January 2017, with the rate adjusted annually.<sup>19</sup> Mainly due to the high interest rate, households that use the proceeds of a reverse mortgage early in retirement could significantly reduce the equity available down the road for use as a reserve or bequest.

A HECM line of credit can nevertheless be quite attractive, even to retirees who do not have an immediate need for the funds. The amount they can draw from a HECM line rises at the specified interest rate, even if the line is untapped. Given the high interest rate, the amount retirees can draw from an untapped line rises quite rapidly, which allows the household to draw down its financial assets more quickly. A study by Davidoff also shows that the amount that older retirees can draw from an untapped line taken out at the beginning of retirement will be comparable to what they could get if they sold their house toward the end of retirement – when care and medical expenses typically spike or assets can be transferred as *inter vivos* bequests.<sup>20</sup> A study by Sun, Triest, and Webb also shows that waiting to take out a reverse mortgage is quite risky, as a rise in interest rates will typically reduce the value of a house as well as how much of that value a reverse mortgage could tap.<sup>21</sup> Given this risk and the likely growth of the line over time, both studies find that securing a line as early as possible, and letting it grow until needed, is generally well worth the up-front cost.

Given the value that reverse mortgages provide, the low take-up rate seems largely explained by non-rational informational and behavioral impediments. A survey conducted by Davidoff, Gerhard, and Post found limited product knowledge and widespread misconceptions. Only one third of the respondents, for example, knew that they could stay in their home even if they owed more than it was worth.<sup>22</sup> Reverse mortgages are also tainted by their earlier association with scammers, who tried to convince elderly homeowners to take out loans to buy over-priced investments or home improvements.<sup>23</sup> More challenging is the fact that reverse mortgages are complex products that affect other key concerns, specifically bequest motives, medical and care risks, securing an adequate standard of living, and remaining in one's home. Such levels of complexity have been shown to strongly incline households to do nothing<sup>24</sup> – unless forced to act by financial distress. Given these informational and behavioral impediments, expanding the use of reverse mortgages will be challenging.

## Conclusion

Households entering retirement will increasingly need to tap their financial assets and home equity to maintain their living standards. While home equity has been the largest store of savings for most households, retirees have generally resisted using it as part of their everyday retirement plan. They typically tap home equity only in response to a late-life financial shock.

Downsizing early in retirement could cut the household's ongoing expenses and increase its financial resources. A reverse mortgage taken out early could also be used to increase on-going consumption. Alternatively, it could secure a rising line of credit for use down the road, allowing the household to draw down its financial savings more aggressively earlier in retirement. Strong behavioral and informational barriers, however, have impeded such uses of home equity that could improve retirees' well-being. Whether future retirees will exercise these options remains to be seen. But the pressures to do so will be much greater than they have been in the past.

## Endnotes

- 1 Financial wealth includes balances in retirement and non-retirement accounts, business equity, and investment real estate, less debts secured by these assets. Home equity is the value of the primary residence less debts secured by the primary residence.
- 2 Married (single) homeowners pay no capital gains tax on gains up to \$500,000 (\$250,000) after a two-year holding period. Medicaid eligibility is especially important for low-income households and for retirees needing nursing home care.
- 3 Poterba and Sinai (2008).
- 4 Imputed rent is also not included in the calculation determining the share of Social Security benefits subject to income taxation.
- 5 Nakajima and Telyukova (2013a). The baseline homeownership rate in the model declines when households choose to sell (the majority of moves) or are hit by a medical shock that forces a move to a nursing home.
- 6 Feinstein and McFadden (1989) find over a third of all households ages 65 and over have “excess housing,” defined as living in dwellings with at least three more rooms than the number of inhabitants.
- 7 Munnell, Soto, and Aubry (2007); Calvo, Haverstick, and Zhivan (2009).
- 8 This figure, from Butrica, Goldwyn, and Johnson (2005), is for home-owning couples without a mortgage and is much the same at different income levels. The share of expenditures devoted to housing is larger for couples with a mortgage, single-person households, and renters. Including the value of imputed rent as both income and an expenditure, Fisher et al. (2007) find that housing accounts for more than 40 percent of the expenditures of homeowners ages 65-69. And this share tends to rise with age because non-housing consumption generally declines while home prices and imputed rents generally rise
- 9 Venti and Wise (2004); and Fisher et al. (2007).
- 10 Kelley et al. (2013).
- 11 Coile and Milligan (2009). Greenhalgh-Stanley (2012) reports that 90 percent of individuals in the AHEAD cohort in the HRS – individuals who were ages 70 and older in 1993 – were homeowners and that 60 percent of those who died by 2005 were homeowners.
- 12 Fischer et al. (2007) and Poterba, Venti and Wise (2011) emphasize the value of home equity as a reserve; Nakajima and Telyukova (2013a) emphasize the importance of bequest motives; and Yang (2009) emphasizes the high transaction costs. Munnell, Soto, and Aubry (2007) report that for workers approaching retirement who intend to hold on to their home equity, 44 percent intended to use it “as a last resort for living expenses or to finance nursing home care or other health emergencies;” 20 percent intended to leave it as a bequest; 9 percent indicated some other use; and 27 percent were “not sure” what they would do.
- 13 Given that very few retirees downsize absent a major trigger event, more than one of these reasons likely keeps the elderly in their homes. Home equity, for example, is clearly used as a precautionary reserve, buffering adverse health and widowhood shocks. This purpose was also identified as the primary reason for holding on to home equity and not using it for ordinary living expenses in a survey of workers approaching retirement (Munnell, Soto, and Aubry, 2007). Nakajima and Telyukova (2013b), however, find that dramatically reducing the need for reserves does not, by itself, increase the incidence of downsizing: in nations where public programs cover most medical and long-term care expenses, retirees draw down their financial wealth – but *not* their housing wealth – far more quickly than retirees in the United States.
- 14 The monthly payments for a time could be drawn out of the proceeds of the loan or the line of credit. But when the proceeds or the line is exhausted, the elderly would need to use other resources to service the loan. While older retirees might be able to borrow more than they would need to repay over their remaining lifespan, the incomes of most older retirees are too low to qualify for a conventional loan or line of credit. Caplin (2002) and Nakajima and Telyukova (2013a) estimate that eliminating this constraint would actually end the decline in the homeownership rate at older ages – that the elderly would generally

borrow rather than sell their homes in response to widowhood and medical expense shocks. Retirees moving to nursing homes would continue to lower the homeownership rate. But this effect is offset by the upward bias in homeownership rates resulting from renters having higher mortality rates than homeowners.

15 The loan amount depends on the value of the home, the age of the borrower, and the interest rate. The amount is greater: 1) the more valuable the home, the collateral backing the loan, up to the current cap of \$625,500; 2) the older the borrower, as less interest will accrue before the loan is repaid; and 3) the lower the interest rate, as again less interest will accrue before the loan is repaid. As all existing mortgages must be paid off, the loan amount must be sufficient for that purpose. While borrowers are not required to make debt service payments, they do need to pay real estate taxes and keep the house insured and in good repair. For more on reverse mortgages, see Munnell and Sass (2014).

16 Consumer Financial Protection Bureau (CFPB) (2012).

17 CFPB (2012); Redfoot, Scholen, and Brown (2007).

18 Redfoot, Scholen, and Brown (2007).

19 A reverse mortgage's up-front costs include conventional mortgage fees, such as an appraisal and legal fees; an up-front government insurance premium of 0.5 percent of the value of the house; and the reverse mortgage lender's origination fee. The \$9,000 up-front cost, given in the calculator on the National Reverse Mortgage Lenders Association website (NRMLA 2017), includes the maximum allowable origination fee.

The 5.9 percent interest rate, also given on the NRMLA website, is the sum of three components: the base rate – the 1-year LIBOR rate of 1.65 percent in January 2017; a 3-percent lender's margin; and a 1.25-percent government insurance premium. Borrowers can also elect a rate that adjusts monthly, which in January 2017 was 4.5 percent on the NRMLA website. Interest rates charged by lenders vary; some charge lower up-front fees; and some reduce up-front fees, sometimes substantially, in exchange for a higher interest rate, which lowers the loan amount available at any given age.

At the 5.9-percent interest rate in January 2017, borrowers age 65 with a mortgage-free house could get a HECM line of credit equal to about half the value of their house.

20 Davidoff (2015).

21 Sun, Triest, and Webb (2008).

22 Davidoff, Gerhard, and Post (2016).

23 CFPB (2012).

24 Brown et al. (2013).

## References

- Brown, Jeffrey R., Arie Kapteyn, Erzo F. P. Luttmer, and Olivia S. Mitchell. 2013. "Cognitive Constraints on Valuing Annuities." Working Paper 19168. Cambridge, MA: National Bureau of Economic Research.
- Butrica, Barbara A., Joshua H. Goldwyn, and Richard W. Johnson. 2005. "Understanding Expenditure Patterns in Retirement." Working Paper 2005-03. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Calvo, Esteban, Kelly Haverstick, and Natalia A. Zhiyan. 2009. "Determinants and Consequences of Moving Decisions for Older Americans." Working Paper 2009-16. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Caplin, Andrew. 2002. "Turning Assets into Cash: Problems and Prospects in the Reverse Mortgage Market." In *Innovations in Retirement Financing*, edited by Olivia S. Mitchell, Zvi Bodie, Brett Hammond, and Steve Zeldes, 234-253. Philadelphia PA: University of Pennsylvania Press.
- Coile, Courtney C. and Kevin Milligan. 2009. "How Household Portfolios Evolve after Retirement: The Effect of Aging and Health Shocks." *Review of Income and Wealth* 55(2): 226-248.
- Consumer Financial Protection Bureau (CFPB). 2012. *Reverse Mortgages: Report to Congress*. Washington, DC.
- Davidoff, Thomas, Patrick Gerhard, and Thomas Post. 2016. "Reverse Mortgages: What Homeowners (Don't) Know and How it Matters." Available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2528944](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2528944)
- Davidoff, Thomas. 2015. "Can 'High Costs' Justify Weak Demand for the Home Equity Conversion Mortgage?" *Review of Financial Studies* 28(8): 2364-2398.
- Feinstein, Jonathan and Daniel McFadden. 1989. "The Dynamics of Housing Demand by the Elderly: Wealth, Cash Flow, and Demographic Effects." In *The Economics of Aging*, edited by David A. Wise, 55-92. Chicago, IL: University of Chicago Press.
- Fisher, Jonathan D., David S. Johnson, Joseph T. Marchand, Timothy M. Smeeding, and Barbara Boyle Torrey. 2007. "No Place Like Home: Older Adults and Their Housing." *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 62(2): S120-S128.
- Greenhalgh-Stanley, Nadia. 2012. "Medicaid and the Housing and Asset Decisions of the Elderly: Evidence from Estate Recovery Programs." *Journal of Urban Economics* 72: 210-224.
- Kelley, Amy S., Kathleen McGarry, Sean Fahle, Samuel M. Marshall, Qingling Du, and Jonathan S. Skinner. 2013. "Out-of-Pocket Spending in the Last Five Years of Life." *Journal of General Internal Medicine* 28(2): 304-309.
- Munnell, Alicia H., Mauricio Soto, and Jean-Pierre Aubry. 2007. "Do People Plan to Tap Their Home Equity in Retirement?" *Issue in Brief* 7-7. Chestnut Hill MA: Center for Retirement Research at Boston College.
- Munnell, Alicia. H. and Steven Sass. 2014. "The Government's Redesigned Reverse Mortgage Program." *Issue in Brief* 12-20. Chestnut Hill MA: Center for Retirement Research at Boston College.
- Nakajima, Makoto and Irina Telyukova. 2013a. "Home Equity in Retirement." University of California, San Diego. Available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1898330](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1898330)
- Nakajima, Makoto and Irina Telyukova. 2013b. "Housing in Retirement Across Countries." Working Paper 2013-18. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- National Reverse Mortgage Lender's Association. 2017. Online Mortgage Calculator. Accessed January 17, 2017. Available at: <http://www.reverse-mortgage.org/About/Reverse-Mortgage-Calculator>
- Poterba, James and Todd Sinai. 2008. "Tax Expenditures for Owner-Occupied Housing: Deductions for Property Taxes and Mortgage Interest and the Exclusion of Imputed Rental Income." *American Economic Review* 98(2): 84-89.

- Poterba, James, Steven F. Venti, and David A. Wise. 2011. "The Composition and Drawdown of Wealth in Retirement." *Journal of Economic Perspectives* 25(4): 95-117.
- Redfoot, Donald L., Ken Scholen, and S. Kathi Brown. 2007. "Reverse Mortgages: Niche Product or Mainstream Solution? Report on the 2006 AARP National Survey of Reverse Mortgage Shoppers." Report 2007-22. Washington DC: AARP.
- Shiller, Robert. 2016. "Housing Market Data." Available at: <http://www.econ.yale.edu/~shiller/data.htm>
- Sun, Wei, Robert K. Triest, and Anthony Webb. 2008. "Optimal Retirement Asset Decumulation Strategies: The Impact of Housing Wealth." *Asia-Pacific Journal of Risk and Insurance* 3(1): 1-29.
- U.S. Board of Governors of the Federal Reserve System. *Survey of Consumer Finances*, 2013. Washington, DC.
- Venti, Steven F. and David A. Wise. 2004. "Aging and Housing Equity: Another Look." In *Perspectives on the Economics of Aging*, edited by David A. Wise, 127-180. Chicago, IL: University of Chicago Press.
- Yang, Fang. 2009. "Consumption Over the Life Cycle: How Different is Housing?" *Review of Economic Dynamics* 12(3): 423-443.



### About the Center

The mission of the Center for Retirement Research at Boston College is to produce first-class research and educational tools and forge a strong link between the academic community and decision-makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception in 1998, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

### Affiliated Institutions

The Brookings Institution  
Syracuse University  
Urban Institute

### Contact Information

Center for Retirement Research  
Boston College  
Hovey House  
140 Commonwealth Avenue  
Chestnut Hill, MA 02467-3808  
Phone: (617) 552-1762  
Fax: (617) 552-0191  
E-mail: [crr@bc.edu](mailto:crr@bc.edu)  
Website: <http://crr.bc.edu>

---

© 2017, by Trustees of Boston College, Center for Retirement Research. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that the author is identified and full credit, including copyright notice, is given to Trustees of Boston College, Center for Retirement Research.

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement Research Consortium. The opinions and conclusions expressed are solely those of the author and do not represent the opinions or policy of SSA or any agency of the federal government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of the contents of this report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation or favoring by the United States Government or any agency thereof.