CONSUMER FINANCIAL PROTECTION BUREAU | MAY 2020

Retirement Security and Financial Decision-making: Research Brief

Office of Financial Protection for Older Americans

Consumer Financial Protection Bureau

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1. Introduction

The first years in retirement are, on average, retirees' most expensive years.[1] Furthermore, a growing number of retirees are not experiencing the expected gradual reduction in spending after they retire.[2]

The Consumer Financial Protection Bureau commissioned a study to identify ways to increase retirement preparedness and protect retirees from overspending their savings in early retirement.[3] The study examined the financial resources and expenses of people who retired between 1992 and 2014 to assess whether they were able to maintain the same spending level on key categories for five consecutive years after retiring.[4] The study examined how the ability to maintain the same spending level varies by sex, race, marital status, health status, educational attainment, and generation, as well as financial circumstances and retirement decisions.

This report describes the findings of the study, and highlights decisions to consider for protecting financial security before retiring.

Key measures and concepts

Given that a growing number of retirees are not experiencing the expected gradual reduction in spending after they retire, the study measures retirees' ability to maintain the same spending level for five consecutive years after retiring. The ability to maintain the same spending level is determined by comparing:

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[1] See e.g., Zahra Ebrahimi, *How Do Retirees' Spending Patterns Change Over Time?* (2019), https://www.ebri.org/content/how-do-retirees-spending-patterns-change-over-time (last visited on January 3, 2020); Anne Foster, *A closer look at spending patterns of older Americans* (2016), https://www.bls.gov/opub/btn/volume-5/pdf/spending-patterns-of-older-americans.pdf; Michael K. Stein, *The Prosperous Retirement: Guide to the New Reality* (1998).

[2] *See* Sudipto Banerjee, *Change in Household Spending After Retirement: Results from a Longitudinal Sample* (2015), https://www.ebri.org/docs/default-source/ebri-issue-brief/ebri_ib_420.pdf?sfvrsn=64ce292f_0 (showing that 46 percent of households spent more during the two years after retiring than before retiring, and that such households were not exclusively high income households); LIMRA Secure Retirement Institute, *Retirement Spending Experience Versus Expectations: A Study of Retirees* (2017), https://www.atheneannuity.com/portalimages/imageserver/AtheneUSA/AtheneConnect/PDFs/Retirement_Spending_Experience_vs_Expectations.pdf.

[3] The study used survey data from the Health and Retirement Study. Appendix A provides specific details about the Health and Retirement Study.

[4] The underlying study, conducted by RAND, also examined retirees' ability to maintain the same spending level for five years at ages 65, 70 and 80. The study also examined how a 6-month in-home and nursing facility long-term care expense on retirees' ability to maintain the same spending level for five consecutive years. The results of the complete study are available at: https://www.rand.org/pubs/working_papers/WR1224.html.

(a) the total income and the value of all savings and non-housing assets with,

(b) the total amount that the retiree would spend if the retiree spent the same amount in each of the first five years of retirement as the retiree spent in the first year of retirement.

The study determines that a retiree has the ability to maintain the same spending level for five consecutive years after retiring if (a) is greater than or equal to (b) – that is, if the total income and the value of all savings and non-housing assets is greater than or equal to the total amount that the retiree would spend if the retiree spent the same amount in each of the first five years of retirement as the retiree spent in the first year of retirement.

This measure provides a useful tool to examine certain financial outcomes. For example, the study examines the relationship between the ability to maintain the same spending level and reductions in spending over time using this measure. The measure, however, has certain limitations. First, because it focuses on the first years in retirement, the measure does not provide insight into retirees' ability to maintain the same spending level over their entire retirement lifespan. Second, the measure does not account for retirees' ability to access credit. This is important since some retirees may borrow to actually cover their expenses.

MEASURING INCOME, SAVINGS NON-HOUSING ASSETS AND SPENDING

The income and assets component of the measure includes the value of all household income sources, savings, and non-housing assets specified in Figure 1. For non-housing assets, such as vehicles and real estate, the measure uses their liquid value. The cost and relative difficulty of liquidating these assets are not considered when determining their liquid value.

The spending component of the measure includes the retirees' total spending in common and regular categories. They include: (1) housing; (2) transportation; (3) utilities; (4) health, (5) food, (6) clothing, (7) hobbies, and (8) durable goods, but exclude spending on travel, charitable contributions, and gifts (Figure 1). By excluding spending on these categories, the measure removes common sources of volatility in early retirement, and sources that may not necessarily occur consecutively for five years.[5] Because of these exclusions, the measure is likely to overestimate the percent of retirees who are able to maintain the same spending level for five years.

[5] Katherine Roy and Yoojin Kim-Steiner, *Three Retirement Spending Surprises* (2019), https://am.jpmorgan.com/us/en/asset-management/gim/adv/insights/three-retirement-spending-surprises; LIMRA, *Retirement Spending Experience Versus Expectations: A Study of Retirees* (2017), https://www.atheneannuity.com/portalimages/imageserver/AtheneUSA/AtheneConnect/PDFs/Retirement_Spending_Experience_vs_Expectations.pdf.

FIGURE 1: KEY CONCEPTS AND DEFINITIONS IN THE STUDY

Concept	Definition
Retiree	A person age 50 or older who is not employed, not looking for employment, and self-describes as fully retired. People employed part-time are excluded from the definition.
Age of retirement	The age at which the person fully transitioned to retirement.
Income	Money from pensions, annuities, Social Security retirement and disability benefits, Supplemental Security Income, VA benefits, the cash value of Supplemental Nutrition Assistance Program (SNAP) benefits and the cash value of other public assistance benefits such as the Temporary Assistance for Needy Families (TANF).
Savings and non-housing assets	Money from checking and savings accounts, retirement accounts, stocks, mutual funds, bonds, treasury bills, and any other savings. This measure also includes the value of vehicles, businesses and real estate. This measure excludes the value of a primary and secondary home.
Spending level	A given household's five-year total post-retirement spending on: housing, such as rent or mortgage payments, property taxes, home or renter's insurance, and home repairs and maintenance; transportation, such as purchases of vehicles, vehicle loan payments, gasoline, and vehicle maintenance and insurance; utilities (electricity, water, heat, and phone/cable/internet), health insurance, health services, medical supplies, drugs, house/yard supplies, groceries, dining out/take-out, clothing, and hobbies; and durable goods, such as refrigerators, washers, dryers, dishwashers, televisions, and computers. The expenses exclude spending on trips/vacations, charitable contributions, and gifts.

KEY ASSUMPTIONS ABOUT SPENDING

To establish the total spending for the five-year period, the study uses the spending level in the first year in retirement and assumes it to be constant for another four years. This constant spending assumption is necessary to test whether retirees are financially prepared if their expenses do not gradually decline as they expected.[6] Because the study does not seek to draw conclusions regarding retirees' financial preparedness for an entire retirement lifespan, the study makes a limited 5-year constant spending assumption. This assumption is consistent with the data showing that retirement spending patterns are similar when examined for limited age bands or specific stages of retirement.[7]

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[6] *See* Sudipto Banerjee, *Change in Household Spending After Retirement: Results from a Longitudinal Sample* (2015), https://www.ebri.org/docs/default-source/ebri-issue-brief/ebri_ib_420.pdf?sfvrsn=64ce292f_0

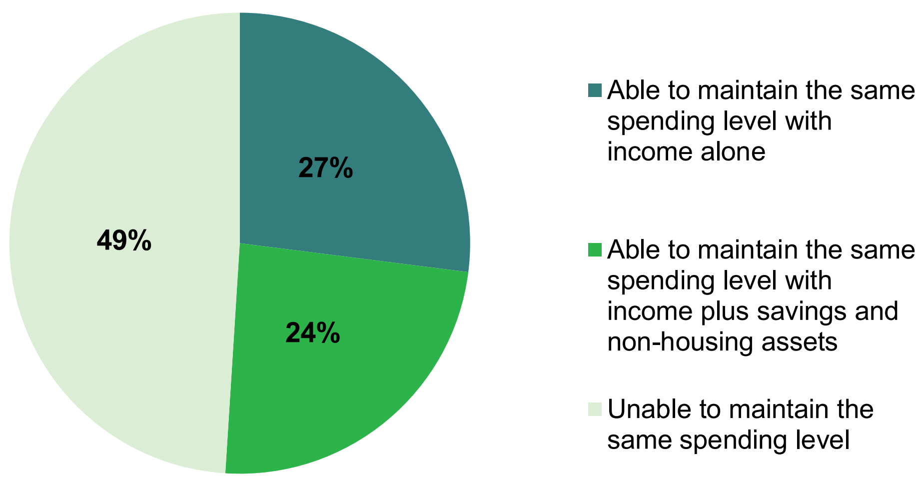
[7] *See, e.g*. Somnath Basu, *Age Banding: A Model for Planning Retirement Needs,* 16 Journal of Financial Counseling and Planning 29-36 (2005). For a summary of other work on age banding, *see* Michael Kitces, *Using Age Banding To Estimate How Spending Will Decline In Retirement* (2016), https://www.kitces.com/blog/age-banding-by-basu-to-model-retirement-spending-needs-by-category/ (last visited on May 22, 2020).

2. Study Findings

Nearly half of all retirees did not have the ability to maintain the same spending level for five years after retiring

The Bureau found that 51 percent of people who retired between 1992 and 2014 had income, savings, and/or non-housing assets to maintain the same spending level for five consecutive years after retiring. The analysis shows that of the 51 percent, 27 percent of retirees had the ability to maintain the same spending level with income from pensions, Social Security, annuities and/or other sources of regular income. The other 24 percent of retirees had the ability to maintain the same spending level after adding the value of retirement accounts, savings, mutual funds and/or other non-housing assets, such as vehicles or businesses.

FIGURE 2: PERCENT OF PEOPLE RETIRED BETWEEN 1992 AND 2014 WHO HAD THE ABILITY TO MAINTAIN THE SAME SPENDING LEVEL FOR FIVE YEARS AFTER RETIRING

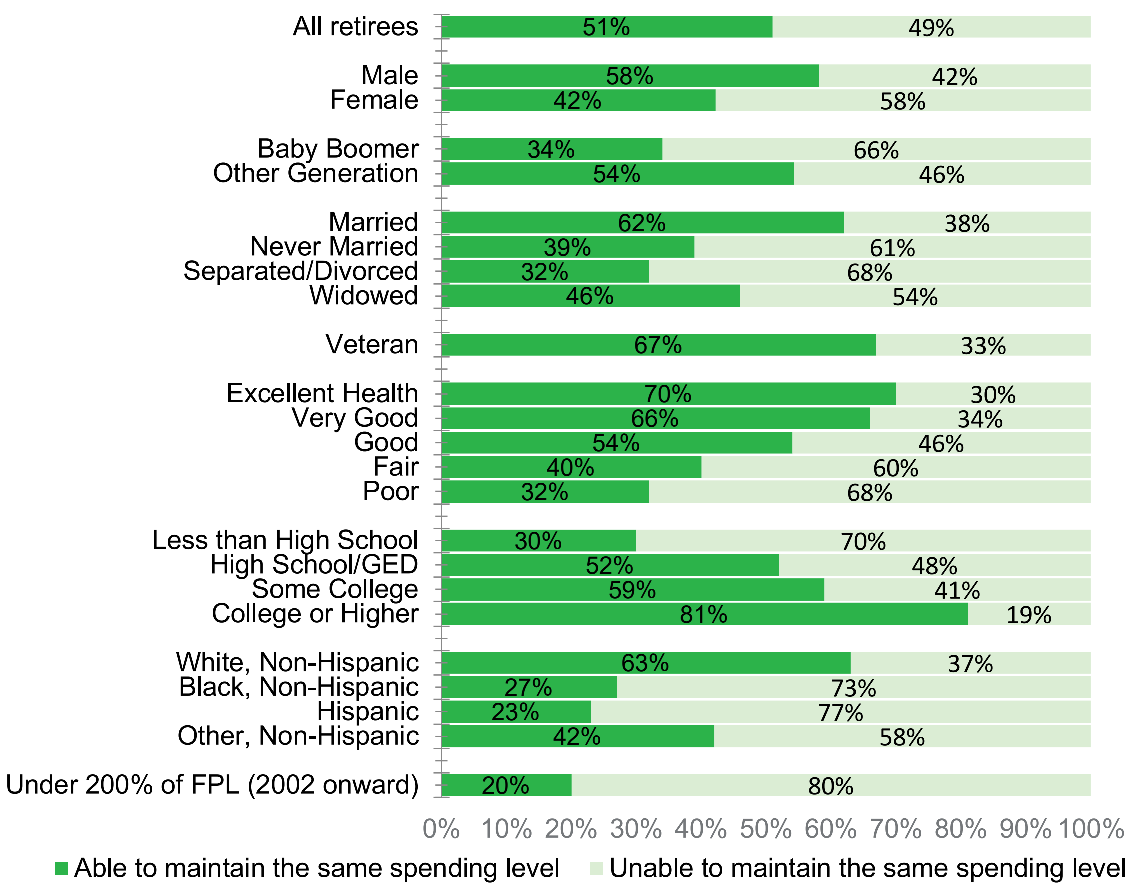


Source: Health and Retirement Survey (1992-2014)

Two-thirds of younger retirees did not have the ability to maintain the same spending level for five years after retiring

The Bureau found that the ability to maintain the same spending level in the first five years in retirement varies significantly by sex, race, marital status, health status, educational attainment, and generation. More specifically, the ability to maintain the same spending level for five years after retiring was higher among retired: men than women, whites than non-whites, married than non-married, and with a college degree than without a college degree. Furthermore, a greater percent of retirees born before 1946 than retirees born between 1946 and 1964 (baby boomers) had the ability to maintain the same spending level for five years after retiring.

FIGURE 3: PERCENT OF PEOPLE RETIRED BETWEEN 1992 AND 2014 WHO HAD THE ABILITY TO MAINTAIN THE SAME SPENDING LEVEL FOR FIVE YEARS AFTER RETIRING BY SELECTED DEMOGRAPHICS

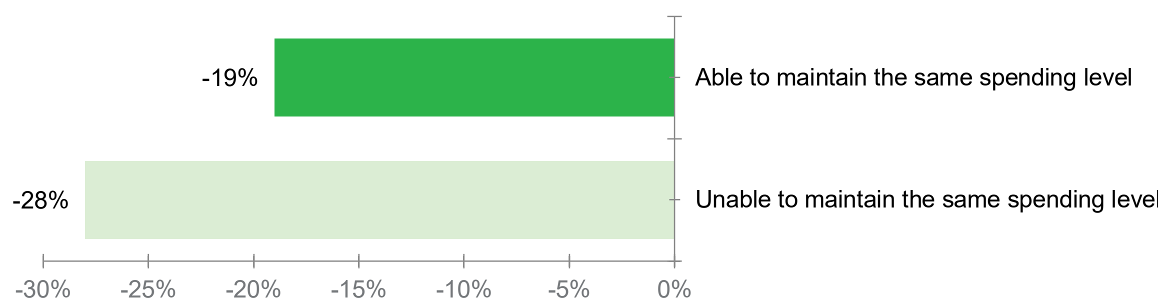


Source: Health and Retirement Survey (1992-2014)

Retirees who were unable to maintain the same spending level after retiring reported large reductions in spending as they aged

In general, retirees' spending declines as they age.[8] A common explanation for this pattern is that retirees spend less because their spending preferences and needs on categories such as transportation, travel, clothing, and entertainment decline as they age.[9] The Bureau's analysis found that the spending decline is associated with the inability to pay for the expenses. The study found that retirees who were unable to maintain the same spending level for five years reduced their expenses 28 percent from the first year in retirement to the sixth year in retirement. In comparison, the study found that retirees who were able to maintain the same spending level for five years reduced their expenses 19 percent from the first year in retirement to the sixth year in retirement. Furthermore, the study found that severe spending reductions (50 percent or more) were more likely among retirees who were unable to maintain the same spending level than those who were able to do so.[10]

FIGURE 4: AVERAGE PERCENT REDUCTION IN SPENDING FROM THE FIRST TO THE SIXTH YEAR IN RETIREMENT BY ABILITY TO MAINTAIN THE SAME SPENDING LEVEL



Source: Health and Retirement Survey (1992-2014)

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[8] *See e.g.*, Sudipto Banerjee, *Change in Household Spending After Retirement: Results from a Longitudinal Sample* (2015), https://www.ebri.org/docs/default-source/ebri-issue-brief/ebri_ib_420.pdf?sfvrsn=64ce292f_0; Anne Foster, *A closer look at spending patterns of older Americans* (2016), https://www.bls.gov/opub/btn/volume-5/pdf/spending-patterns-of-older-americans.pdf.

[9] *Id.*

[10] Specifically, 17 percent of retirees who were unable to maintain the same spending level for five years reduced their expenses by 50 percent or more from the first year in retirement to the sixth year in retirement. In comparison, 11 percent of retirees who were able to maintain the same spending level for five years reduced their expenses by 50 percent or more from the first year in retirement to the sixth year in retirement.

Decisions about debts, pensions, and Social Security are related to the ability to maintain the same spending level after retiring

The Bureau also examined the relationship between retirees' ability to maintain the same spending level for five years after retiring and certain financial decisions that retirees made in the years leading to their retirement.

Homeownership and mortgages

A larger percent of retired homeowners than renters had the ability to maintain the same spending level for five years after retiring (59 percent versus 30 percent). Yet, among homeowners, the study found that having a mortgage is negatively associated with the ability to maintain the same spending level for five years after retiring. More specifically, 55 percent of homeowners with a mortgage had the ability to maintain the same spending level for five years after retiring. In comparison, 61 percent of homeowners without a mortgage had the ability to maintain the same spending level for five years after retiring.

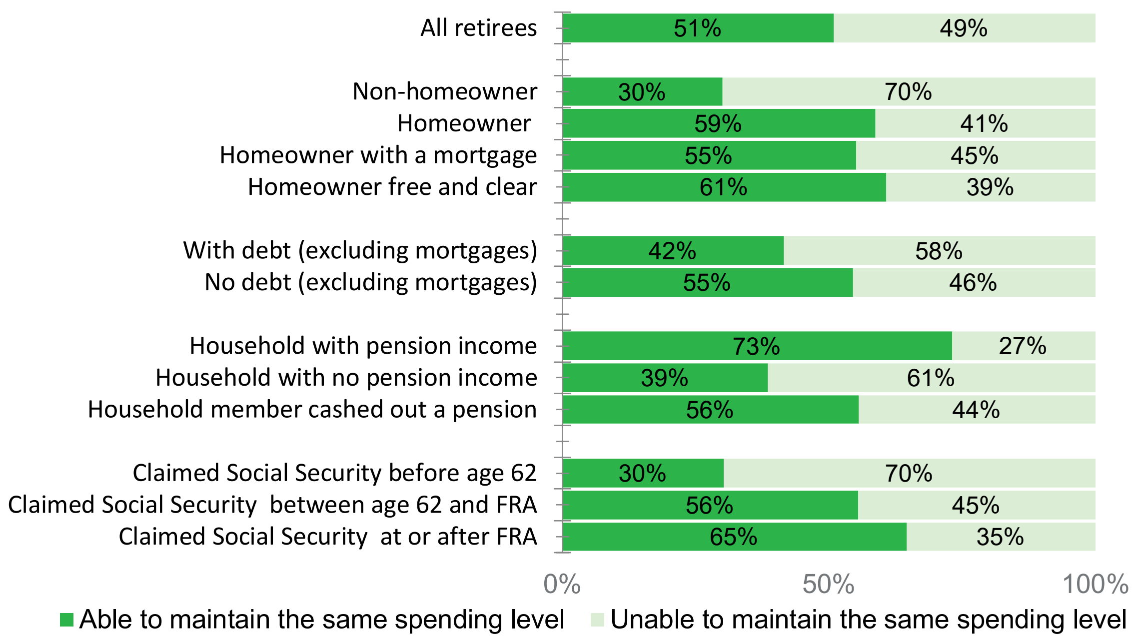
Credit card, student loans, auto loans, and other debts

The Bureau examined the relationship between carrying non-mortgage debt, such as credit cards, student loans, auto loans, and other debts, and retirees' ability maintain the same spending level for five years after retiring. The study shows that 55 percent of retirees without these debts had income, savings, and/or non-housing assets to maintain the same spending level for five years after retiring. In comparison, 42 percent of retirees with these debts had income, savings and non-housing assets to maintain the same spending level for five years after retiring.

Pension and pension cash-outs

The Bureau examined the association of defined benefit pension income and a pension cash-out with retirees' ability to maintain their spending level for five years after retiring. In general, retirees with pension income had greater ability to maintain the same spending level for five years after retiring than retirees without pension income (73 percent versus 39 percent). Among retirees with a pension, the analysis shows that those who chose a pension cash-out were less able to maintain the same spending level for five years after retiring than those who chose to receive their pension as a monthly payment (73 percent versus 56 percent).

FIGURE 5: PERCENT OF PEOPLE RETIRED BETWEEN 1992 AND 2014 WHO HAD THE ABILITY TO MAINTAIN THE SAME SPENDING LEVEL FOR FIVE YEARS AFTER RETIRING BY SELECTED FACTORS



Source: Health and Retirement Survey (1992-2014)

Social Security claiming age

The Bureau examined whether the age at which retirees claimed their Social Security benefits was associated with their ability to maintain the same spending level for five years after retiring.[11] The analysis shows that 65 percent of retirees who claimed a full or increased benefit by claiming at or after their designated full retirement age (FRA) had the ability to maintain the same spending level for five years after retiring. In comparison, 55 percent of retirees who claimed a reduced Social Security benefit by claiming before their full retirement age (FRA) had the ability to maintain the same spending level for five years after retiring.

[11] The *full retirement age* (FRA) is the age at which eligible people receive 100 percent of their scheduled Social Security benefit under current law. For retirees examined in this study, the FRA ranges from age 65 to 66, depending on the individual's year of birth. For more information about the full retirement age, see SSA, *Retirement Planner: Benefits by Year of Birth*, at http://www.socialsecurity.gov/planners/retire/agereduction.html (last visited May 22, 2020); *see also*, CFPB, *Issue Brief: Social Security claiming age and retirement security* (Nov. 2015), *available at* http://files.consumerfinance.gov/f/201511_cfpb_issue-brief-social-security-claiming-age-and-retirement-security.pdf.

3. Conclusion

This study provides a first of its kind look into the financial resources and expenses during the first years in retirement of people who retired between 1992 and 2014. The study found that nearly half of the people who retired during this period did not have the income, savings, and/or non-housing assets to maintain the same spending level for five years after retiring. In addition, the study found that retirees appear to reduce their spending as they age to address this gap between income and expenses. Retirees' reductions in spending, which for many are substantial, deserve to be examined further as they raise questions as to whether the reductions are adversely affecting retirees' quality of life and/or essential expenses.

The study findings indicate that certain financial decisions may enhance or diminish retirees' ability to maintain the same level of spending level. For example, for homeowners, entering retirement without mortgage debt, for those with a pension, choosing a monthly annuity rather than in a lump-sum payout, are positively associated with retirees' ability to maintain the same spending level for five years. In addition, the study found that claiming Social Security benefits at the full retirement age or after, as opposed to choosing a reduced benefit by claiming early, is positively associated with retirees' ability to maintain the same spending level for five years.

APPENDIX A: METHODOLOGY

This research brief highlights descriptive findings of the study commissioned by the Bureau to examine several financial outcomes in retirement, including a retiree's ability to maintain the same spending level for five consecutive years.[12]

The study used survey responses from people who retired between 1992-2014 collected through the Health and Retirement Study (HRS). The HRS is a nationally representative panel survey of Americans over age 50. The HRS includes core questions on a range of health, asset, income, socio-demographic characteristics, family structure, and labor market measures, first beginning with people ages 51-61 year-old and their spouses in 1992.

TABLE 1: SAMPLE CHARACTERISTICS OF PEOPLE WHO RETIRED BETWEEN 1992 AND 2014 BY HOUSEHOLD COMPOSITION

	Single-Headed Household at Retirement	Couple-Headed Household at Retirement
Age (average)	68.9	68.8
Female	73%	17%
White, Non-Hispanic	61%	75%
Black, Non-Hispanic	26%	13%
Hispanic	10%	10%
Other, Non-Hispanic	2%	2%
% Baby Boomers	20%	12%
Less than High School	35%	28%
High School/GED	33%	34%
Some College	19%	19%
College and Above	12%	20%
Usual Household Income (2016 dollars)	$19,731.62	$45,556.9
Non-Housing Wealth (2016 dollars)	$149,169.53	$39,0647.75
Number of observations	5,139	5,170

The analysis relies on data from all core interview years (1992-2014) and consumption measures (2001-2015).[13] The analysis was conducted at the household level. In total, there are 23,373 unique households in the HRS from 1992 to 2014. The analysis was limited to all single-headed households where the person was observed to fully transition into retirement and couple-headed

[12] The scope of the full project and other findings can be found at: https://www.rand.org/pubs/working_papers/WR1224.html.

[13] The questions included in each biennial Health and Retirement Study survey can be found at: http://hrsonline.isr.umich.edu/index.php?p=avail&_ga=2.96794712.63530051.1562773658-1230236905.1543507801

households where at least one person was observed to fully transition into retirement (9,968 households). The analysis excludes households that never retired (8,731 households) and those who were already fully retired before joining the HRS in 1992 (4,774 households).

While the results presented in the report show the aggregated values for all retired households, the underlying analysis was conducted by separating single and couple-headed households. This approach helps to account for differences expenses, retirement patterns, and household decision-making between these households. The detailed results of the analysis by household composition are presented in Appendix B.

CFPB's Office of Financial Protection for Older Americans and the RAND Center for Financial and Economic Decision-Making (CFED) developed the analysis plan and measures of this study. RAND CFED staff conducted the HRS data analysis.

Limitations

While the HRS provides the most comprehensive dataset to examine the associations discussed in this brief, there are several key limitations in the data and the analysis:

- Causality: While the study relies on longitudinal data, the associations observed do not support conclusions about direct causality.
- Adjustments to income and expenses: The study did not adjust income and assets to account for the effects of taxes, or investment gains in certain types of assets.
- Attrition: The study did not control for issues of attrition or related biases in the sample.
- Imputation of spending: Only 10% of sample in the study responded to the Consumption and Activity Mail Survey (CAMS). As a result, the spending was imputed to the remaining households based on similar characteristics and financial resources in the first year in retirement.

APPENDIX B: DETAILED TABLES

TABLE 2: PERCENT OF PEOPLE RETIRED BETWEEN 1992 AND 2014 WHO HAD THE ABILITY TO MAINTAIN THE SAME SPENDING LEVEL FOR FIVE YEARS AFTER RETIRING BY SELECTED DEMOGRAPHICS AND HOUSEHOLD COMPOSITION

Category	Subcategory	Single Headed Households	Couple Headed Households	All Households
All Retirees	All Retirees	40.0%	62.0%	51.0%
Sex	Female	39.0%	56.0%	42.2%
Sex	Male	42.7%	63.2%	58.2%
Generation	Baby Boomer	26.0%	48.0%	34.5%
Generation	Other Generation	43.4%	64.0%	54.2%
Marital Status	Married	-	62.0%	62.0%
Marital Status	Never Married	39.0%	-	39.0%
Marital Status	Separated/Divorced	32.0%	-	32.0%
Marital Status	Widowed	46.0%	-	46.0%
Veteran	Veteran in Household	51.0%	71.0%	67.1%
Health status	Excellent	58.0%	79.0%	70.2%
Health status	Very Good	54.0%	75.0%	65.6%
Health status	Good	43.0%	64.0%	53.8%
Health status	Fair	31.0%	50.0%	39.7%
Health status	Poor	25.0%	41.0%	31.9%
Education	Less than High School	26.0%	36.0%	30.5%
Education	High School/GED	40.0%	64.0%	52.1%
Education	Some College	47.0%	71.0%	58.7%
Education	College or Higher	69.0%	89.0%	81.4%
Race/ethnicity	White, Non-Hispanic	51.0%	72.0%	62.6%
Race/ethnicity	Black, Non-Hispanic	23.0%	35.0%	26.9%
Race/ethnicity	Hispanic	21.0%	25.0%	23.0%
Race/ethnicity	Other, Non-Hispanic	34.0%	49.0%	41.9%
Poverty Status	Under 200% of FPL (2002 onward)	18.0%	24.0%	20.0%

TABLE 3: PERCENT OF PEOPLE RETIRED BETWEEN 1992 AND 2014 WHO HAD THE ABILITY TO MAINTAIN THE SAME SPENDING LEVEL FOR FIVE YEARS AFTER RETIRING BY SELECTED FINANCIAL FACTORS AND HOUSEHOLD COMPOSITION

Category	Subcategory	Single Headed Households	Couple Headed Households	All Households
All Retirees	All retirees	40.0%	62.0%	51.0%
Homeownership	Non-homeowner	29.9%	31.0%	30.1%
Homeownership	Any Mortgage Debt (among Homeowners)	44.0%	62.0%	55.1%
Homeownership	Homeowner but no mortgage debt	49.0%	69.0%	60.8%
Homeownership	Homeowner	47.2%	66.3%	58.7%
Debt	Any Non-Mortgage Debt	31.0%	52.0%	41.6%
Debt	No non-mortgage debt	43.0%	66.0%	54.5%
Pension	Household Receiving Pension Income	64.0%	78.0%	73.1%
Pension	No pension income	32.0%	48.0%	38.6%
Pension	Household Member Ever Cashed out Pension	37.0%	67.0%	55.6%
Social Security	Before 62	24.0%	41.0%	30.3%
Social Security	Between 62 and FRA	41.0%	65.0%	55.5%
Social Security	At or after FRA	53.0%	73.0%	64.6%

TABLE 4: AVERAGE ANNUAL INCOME, SAVINGS, NON-HOUSING ASSETS AND EXPENSES OF PEOPLE RETIRED BETWEEN 1992 AND 2014 WHO HAD THE ABILITY TO MAINTAIN THE SAME SPENDING LEVEL FOR FIVE YEARS AFTER RETIRING, SINGLE-HEADED HOUSEHOLDS

Income and expenses	Retirees who are able to maintain spending level with income alone	Retirees who are able to maintain spending with income, savings and non-housing assets	Retirees who are unable to maintain spending level	All Retirees
Regular Income *(a)*	$50,400	$19,100	$9,900	$20,100
Annuitized value of Savings and non-Housing Assets *(b)*	$67,500	$77,500	$1,900	$30,500
Regular Expenses *(c)*	$27,700	$33,300	$25,100	$27,300
Gap/Surplus During First Five Years in Retirement *[a+b-c]*	**$90,200**	**$63,300**	**-$13,300**	**$23,300**

Note: The annuitized value of savings and non-housing assets is the total value of savings and non-housing assets divided by five.

TABLE 5: AVERAGE ANNUAL INCOME, SAVINGS, NON-HOUSING ASSETS AND EXPENSES OF PEOPLE RETIRED BETWEEN 1992 AND 2014 WHO HAD THE ABILITY TO MAINTAIN THE SAME SPENDING LEVEL FOR FIVE YEARS AFTER RETIRING, COUPLE-HEADED HOUSEHOLDS

Income and expenses	Retirees who are able to maintain spending level with income alone	Retirees who are able to maintain spending with income, savings and non-housing assets	Retirees who are unable to maintain spending level	All Retirees
Regular Income *(a)*	$90,900	$29,900	$16,300	$45,500
Annuitized value of Savings and non-Housing Assets *(b)*	$140,900	$99,500	$4,100	$78,100
Regular Expenses *(c)*	$46,700	$46,800	$37,200	$43,200
Annual Gap/Surplus During First Five Years in Retirement *[a+b-c]*	**$185,100**	**$82,600**	**-$16,800**	**$80,400**

Note: The annuitized value of savings and non-housing assets is the total value of savings and non-housing assets divided by five.