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How Do Retirees' Spending Patterns Change Over Time?

By Zahra Ebrahimi, Ph.D., Employee Benefit Research Institute

AT A GLANCE

Using the Health and Retirement Study (HRS) and the Consumption and Activities Mail Survey (CAMS), we examine spending behavior of older Americans for the 50–64, 65–74, and 75-or-older age groups between 2005 and 2017, biennially.

- Average annual total spending is lower for households in older age groups compared with those in younger age groups.
- Housing is the largest spending category for every age group, and in all survey years studied except 2017, the median share of households' budgets allocated to housing expenses was smaller for older households.
- On average, households spent less on food as they grew older, and the average dollar amount spent on work-related expenses such as transportation and clothing declined by age.
- The average amount spent on entertainment declined by age, and older households allocated a larger share of their budgets to gifts and contributions.
- The share of health care costs in households' budgets increased with age. However, the average annual share of health costs for the 65–74 and 75-or-older age groups declined after 2007, the year after Medicare Part D went into effect.
- Across all age groups, for low-income households, a larger share of expenses was spent on housing and food compared with high-income households. This increased spending on necessities was offset by a reduction in the average share of spending on entertainment and gifts and contributions.
- Median total income was lower for households in older age groups. In addition, they had higher median spending-to-income ratios than younger age groups.
- The fraction of households who spent more than their income increased with age. However, the average amount overspent was lower for older age groups compared with younger age groups.
- Median non-housing wealth increased with age but leveled off and even declined as households reached ages 75 or older. In addition, it was much lower for households with deficits — those who have spent more than their income — than for households without deficits.

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Introduction

A common approach to planning for retirement is to assume that, at retirement, people should expect to spend a certain constant level — e.g., 75 percent — of pre-retirement income every year throughout retirement, with some variability depending on income, retirement lifestyle, and health care costs. However, evidence from actual retiree spending patterns challenges this assumption. A series of focus groups and surveys conducted by the Society of Actuaries and their partners found that the spending patterns of early vs. late retirees differed dramatically. A study of early retirees — those who had just retired — found that: "Many focus group participants are spending more money now than they did while working. There are two reasons for this. First, retirement tends to mean having more time for socializing and hobbies. Many retirees have fairly expensive hobbies, such as fishing and golf. Socializing often takes the form of eating out and other entertainment. While there are costs associated with work, such as commuting, that are eliminated in retirement, for a number of participants these savings are more than offset by the cost of retirement. The other reason is the relative increase in expenses caused by inflation. A number of retirees commented that they have been surprised by the increased cost of energy, prescription drugs, and other expenses" (Society of Actuaries, 2006). However, a study of long-term retirees — those who had been in retirement for at least 15 years — paints quite a different story: "Many, particularly those who have experienced multiple financial shocks, have had to make significant cuts in their spending. Many speak of going from buying what they want to buying only what they need and feeling that they do not need much. But while most adjust well to financial setbacks in retirement, some setbacks cause severe non-financial difficulties and even trauma" (Society of Actuaries, 2016).

So how do retirees spend down their assets in retirement? Using data from the Health and Retirement Study (HRS) 2004–2016 and the Consumption and Activities Mail Survey (CAMS) 2005–2017, which is a supplement of the HRS, the Employee Benefit Research Institute (EBRI) examines how household spending changes for those 50 years of age and older, which covers the periods that households' members age and transition into retirement as well as their spending during retirement.

> The Consumption and Activities Mail Survey (CAMS) contains detailed spending information on durable and nondurable expenses. Using this information merged with the income information available in the Health and Retirement Study (HRS), this study summarizes the spending patterns of the American elderly. Compared with EBRI's last research on this topic (Ebrahimi, 2019), which used CAMS 2015 and HRS 2014 data to study spending in different categories for different marital/retirement status subgroups in a cross-sectional analysis, this paper utilizes multiple waves of HRS and CAMS datasets to do a time-series analysis of spending patterns across age groups and years.

The primary goal of this analysis is to document overall spending as well as spending in consumption subcategories across age groups and survey years. The amount older households are spending will be compared with their income. We will also examine how any gaps are possibly financed.

Households' Characteristics

In 2016, households with a reference person 50–64 years old made up 38 percent of our sample, compared with 28 and 32 percent from households with a reference person in the 65–74 and 75-or-older age groups, respectively. The percentage of households with a reference person 75 or older increased from 24 percent in 2004 to 32 percent in 2016. In addition, the average age in the overall sample increased from 65 in 2004 to 67 in 2016, which probably indicates the aging of the U.S. population. In 2004, the average household size for the overall sample was 2.23 members, which dropped to 2.15 members in 2016, with a high of 2.4 for the 50–64 age group and a low of 1.8 for the 75-or-older age group.

In 2004, the percentage of households with a college-educated reference person was 25 percent in the overall sample, compared with 33 percent in 2016. Homeownership dropped from 84 percent of the overall sample in 2004 to 80 percent in 2016 with those in the 50–64 age group experiencing the largest drop of 10 percentage points. Homeownership among older households was 76 percent for the 50–64 age group compared with 85 percent for the 65–74 age group in 2016. The share of households who own their houses mortgage-free dropped from 69 and 83 percent for the 65–74 and 75-or-older age groups in 2004, respectively, to 60 and 79 percent in 2016 (Figure 1).

Figure 1
Households' Characteristics, by Age of Reference Person, 2004 and 2016

	2004				2016			
	All	**50–64**	**65–74**	**75 or Older**	**All**	**50–64**	**65–74**	**75 or Older**
Number of Households	5,639	2,165	2,000	1,352	4,914	1,887	1,370	1,571
Percentage	100%	38%	36%	24%	100%	38%	28%	32%
Households' Characteristics								
Age of reference person	65	57	69	81	67	60	69	81
Average number of persons in household	2.23	2.48	2.06	1.76	2.15	2.4	2.04	1.8
Average number of earners	1.38	1.43	1.22	1.05	1.36	1.44	1.25	1.11
Distribution								
Sex of reference person								
Male	44%	45%	46%	40%	44%	43%	46%	45%
Female	56%	55%	54%	60%	56%	57%	54%	55%
Race								
Black or African American	7%	8%	6%	5%	8%	10%	8%	6%
White, Asian, and all other races	93%	92%	94%	95%	92%	90%	92%	94%
Hispanic or Latino	5%	6%	5%	3%	7%	9%	6%	5%
Education of reference person								
College and above	25%	30%	20%	20%	33%	36%	35%	25%
Housing								
Homeowner	84%	86%	86%	78%	80%	76%	85%	80%
Homeowner without mortgage/land contract	55%	40%	69%	83%	56%	40%	60%	79%

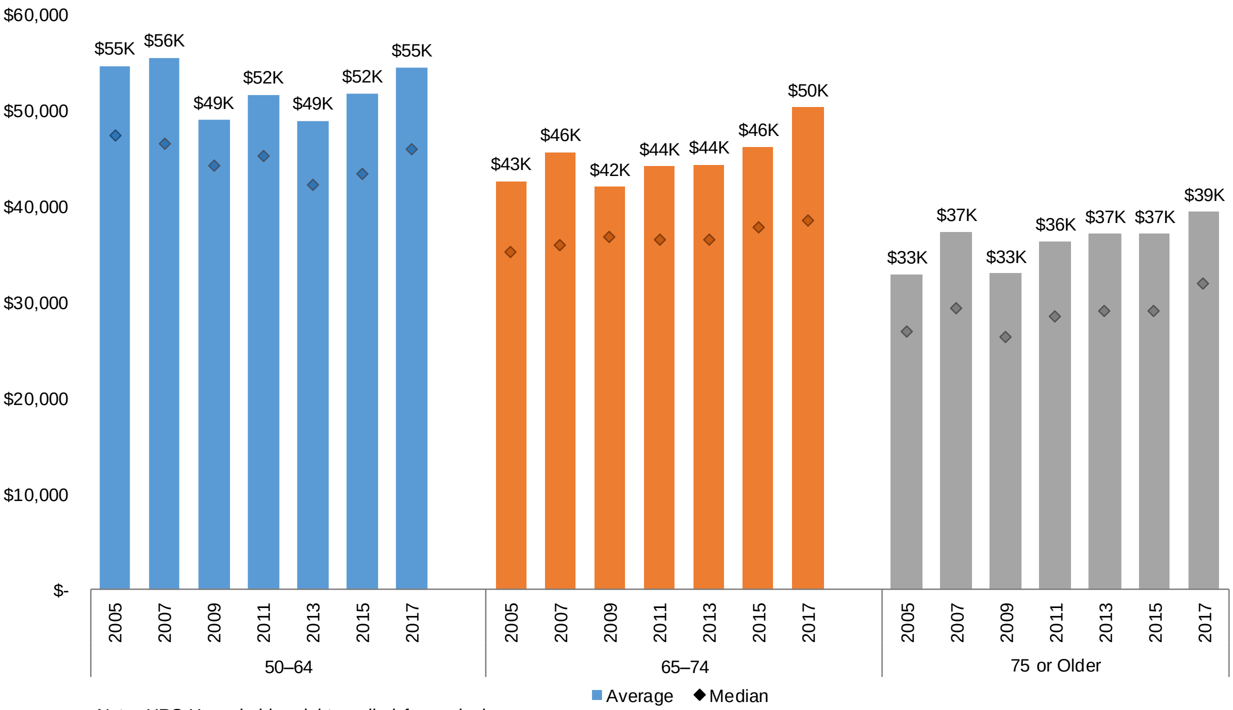
Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Annual Expenditures

We start by examining total average household expenditures (Figure 2) and household expenditures by type, such as housing, food, and health (figures 2, 5, and 6) across age and year. The age groups examined are 50–64, 65–74, and 75 or older. The time period examined is 2005–2017, biennially.

Figure 2 shows that average annual total spending declined as households aged. In 2005, average total household expenditures were $55,000 for those ages 50–64; in that same year, total household expenditures were $43,000 for those ages 65–74, or 22 percent less. And for those ages 75 or older, total average expenditures were $33,000, or 23 percent less than the 65–74 age cohort and 40 percent less than the 50–64 age cohort. This pattern was consistent across all survey years. On average, across all observed periods, total average expenditures were 16 percent less for those ages 65–74 vs. those ages 50–64 (an average of $54,000 vs. $45,000) and 20 percent less for those ages 75 or older vs. those ages 65–74 (an average of $36,000 vs. $45,000). Those ages 75 or older were spending, on average, a third less than those ages 50–64.[1]

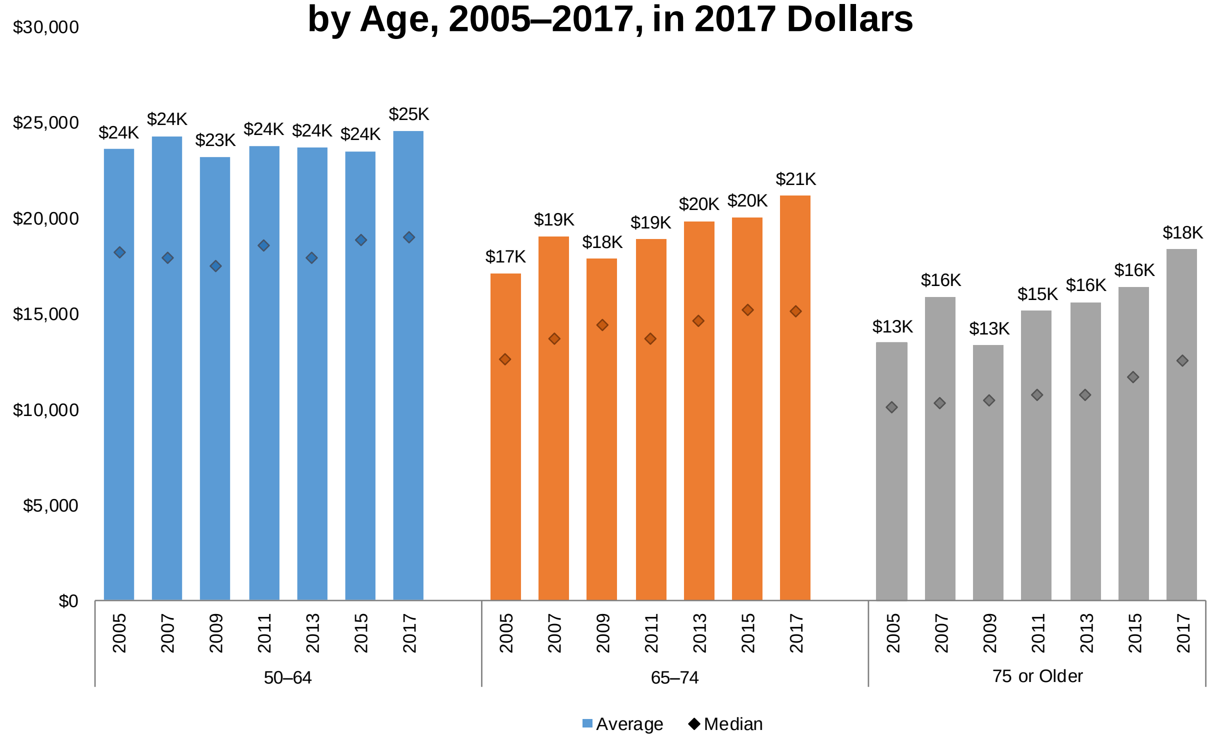
Figure 2
Average and Median Household Total Expenditures, by Age, 2005–2017, in 2017 Dollars



Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

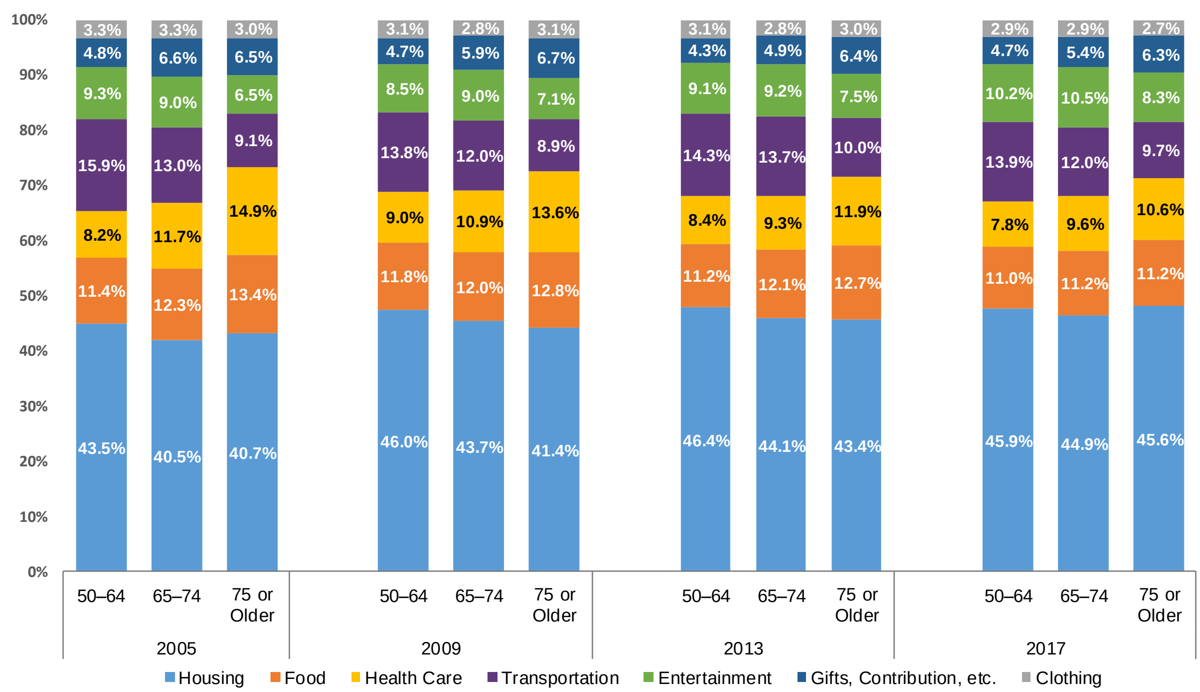
[1] Numbers are not reported in figures.

Figure 3
Average and Median Household Housing Expenditures, by Age, 2005–2017, in 2017 Dollars



Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 4
Share of Average Annual Spending on Major Spending Components, by Age and Year



Note: HRS Household weight applied for analysis. Percentages may not add to 100 due to rounding.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

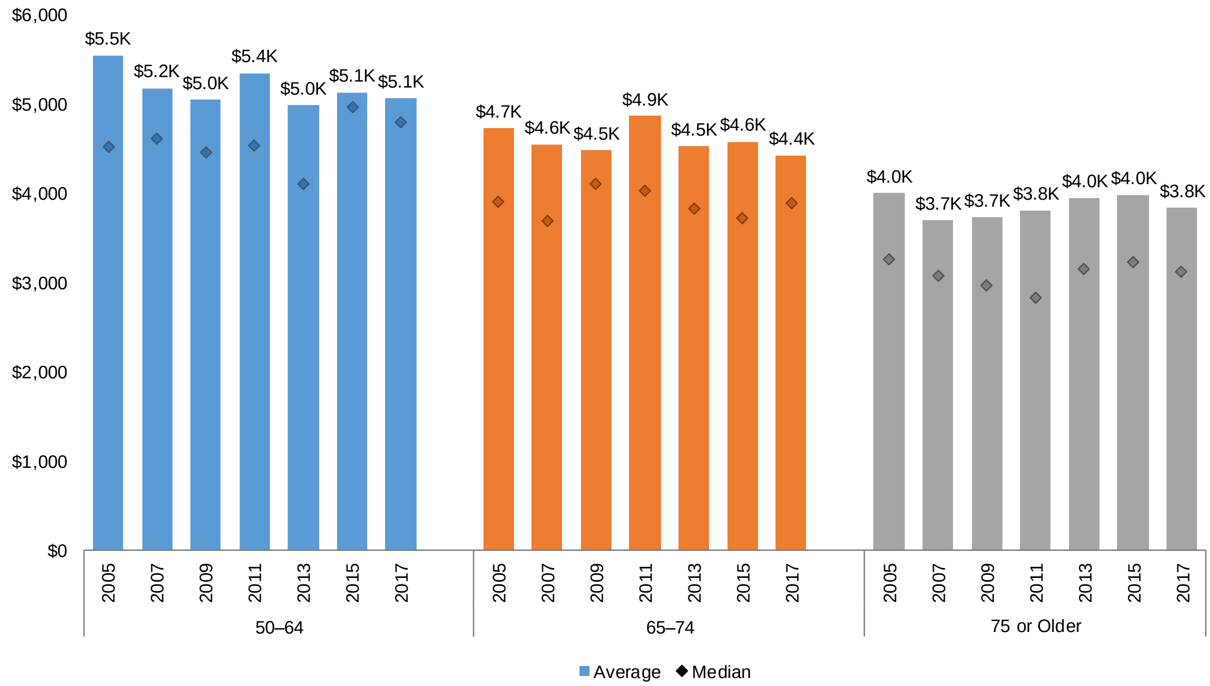
Notably, all three age groups experienced a reduction in total spending in 2009, most likely due to the Great Recession, which was followed by a gradual recovery in the years afterward. While the average household's total spending was never below $49,000 for those 50–64 years old, for those ages 65–74, it was rarely above $46,000, and for those ages 75 or older, it never surpassed $39,000 between 2005 and 2017.

As shown in figures 3 and 4, **housing** was the greatest expense both in dollar terms and in share of annual spending. Average spending on housing was the greatest for the age group 50–64 (never below $23,000), decreasing to $17,000–$21,000 for the 65–74 age group and $13,000–$18,000 for the 75-or-older group, reflecting the decline in mortgage debt among older households. For instance, in 2016, the share of homeowners without mortgage debt was 40 percent among the 50–64 age group, compared with 60 percent for the 65–74 group and 79 percent for the 75-or-older age group (Figure 1).

While the share of housing in total spending was almost the same across age groups in 2017 (45–46 percent), in other survey years the older age groups allocated a smaller share of their expenses to housing (Figure 4). This trend is easily noticeable in 2009 where households ages 50–64 spent 46 percent of their total expenses on housing while those 65–74 years old and 75 or older spent 43.7 and 41.4 percent, respectively.

While there are minor differences in the proportion of total **food** expenditures among different age groups (Figure 4), households spent less on food as they grew older, ranging from the high of $5,000–$5,500 for the 50–64 age group to a low of $3,700–$4,000 for the 75-or-older age group (Figure 5). Average spending on food by the 65–74 age group ranged from $4,400–$4,900 between 2005 and 2017.

Figure 5
Average and Median Household Food Expenditures, by Age, 2005–2017, in 2017 Dollars

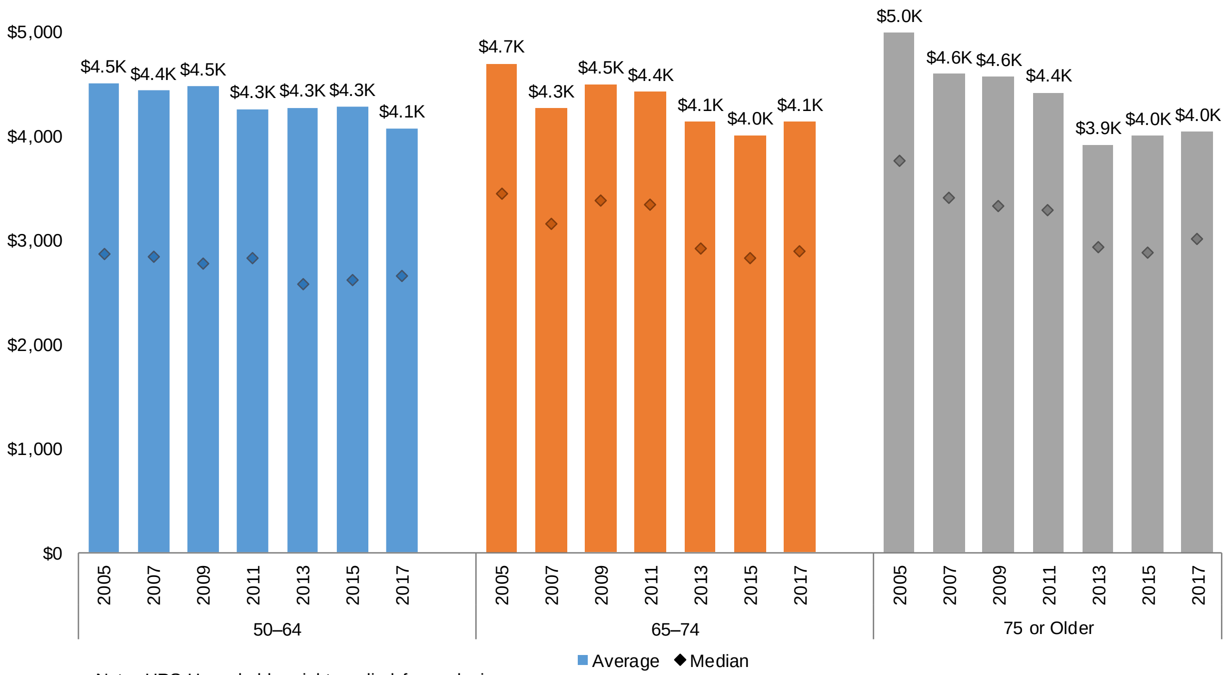


Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

The share of household budget devoted to out-of-pocket **health** costs increased with age. This trend was more pronounced in 2005 and 2009 where the 50–64 age group spent 8.2 and 9 percent of their budget while the 75-or-older age group spent 14.9 and 13.6 percent, respectively (Figure 4). The average annual share of health costs for the 65–74 and 75-or-older age groups declined after 2007. In addition, for those 75 or older, the average (also median) dollar amount of health care costs dropped from $5,000 in 2005 to $4,000 in 2017 (Figure 6). These trends could be in part attributable to health-related legislation that has affected the elderly, most notably Medicare Part D, which went into effect in 2006, and the Affordable Care Act's subsidies for Medicare Part D's coverage gap,[2] which were implemented in 2011. Based on a study by the Kaiser Family Foundation (Cubanski et al., 2018) using data from the Centers for Medicare & Medicaid Services (CMS), Medicare Part D enrollment grew from 22 million since the program started in 2006 to 43.4 million (72 percent of all Medicare beneficiaries) in 2018. The breakdown of the out-of-pocket health costs for those 75 or older shown in Figure 6A indicates that most of the drop in total health costs is attributed to drugs and health insurance, while other components remained unchanged for the most part.

The average and median dollar amounts of households' health care expenses (Figure 6) did not show large variations across age groups in any given year. However, if we take into account that family size reduces with age (Figure 1), per-person average health care spending was larger for the 75-or-older age group compared with younger households.

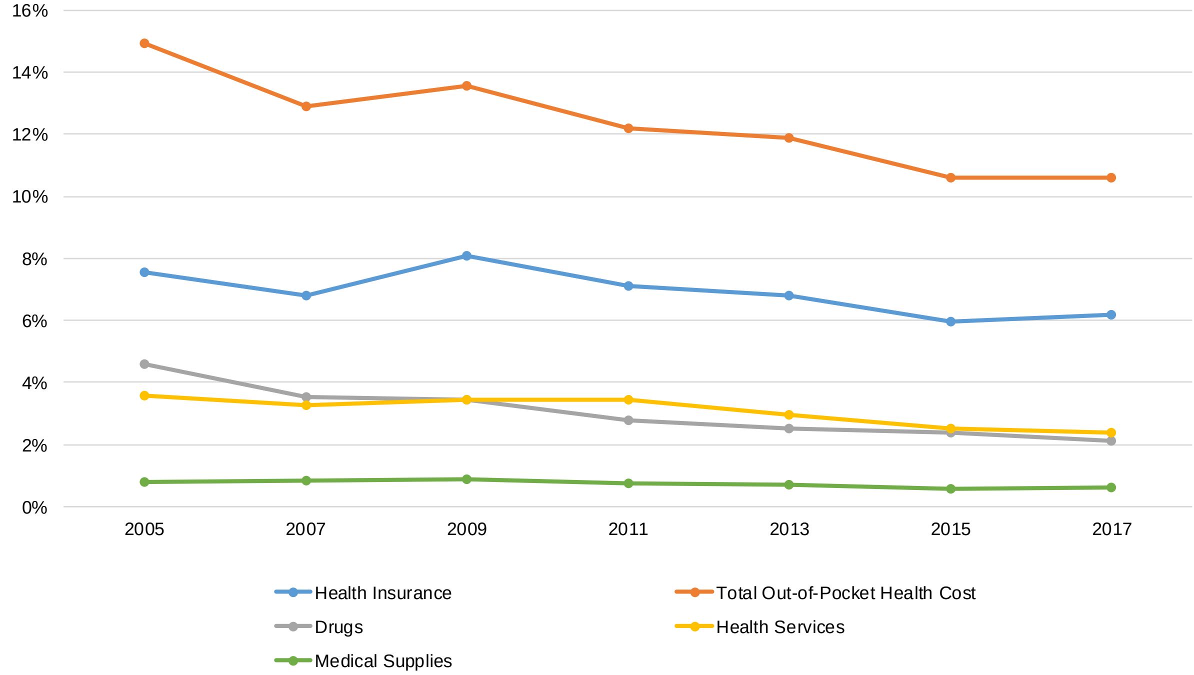
Figure 6
Average and Median Household Health Care Expenditures, by Age, 2005–2017, in 2017 Dollars



Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

[2] Also known as the "donut hole."

Figure 6A
Average Share of Health Care in Total Household Expenditures, Ages 75 or Older, 2005–2017



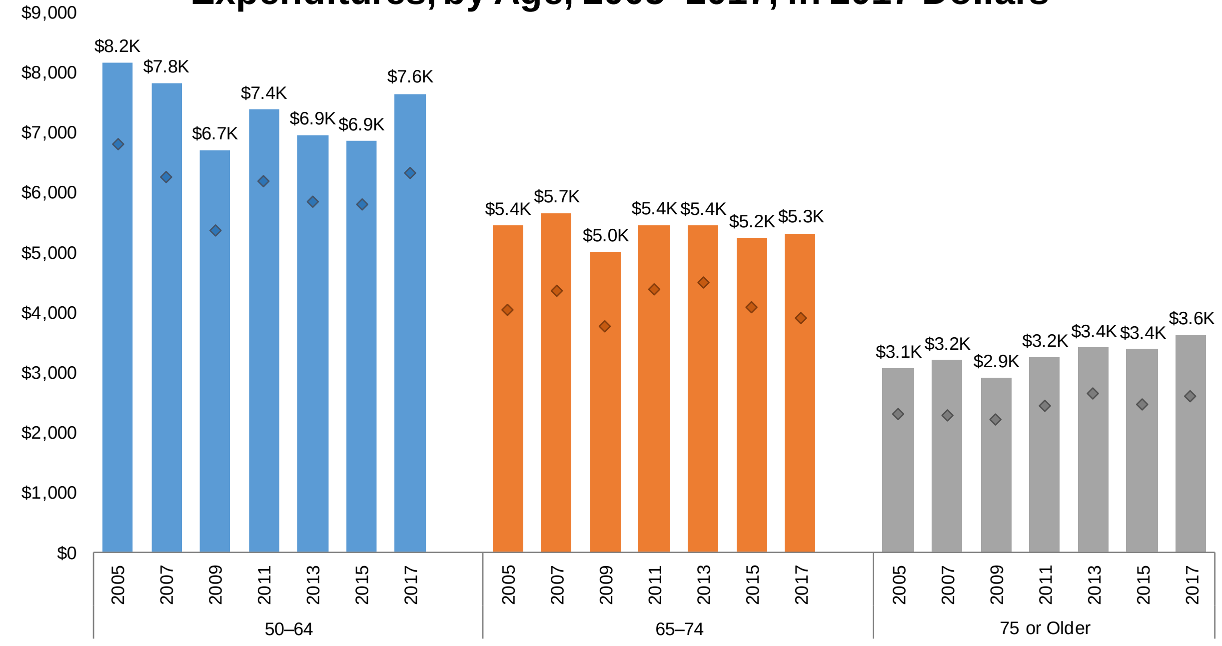
Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Transportation is often considered a work-related expense, which is expected to decline as members of the household retire. As shown in Figure 7 and Figure 4, transportation expenses declined with age both in dollar terms and in share of total spending. While those in the 50–64 age group on average never spent less than $6,700 (year 2009) or more than $8,200 (year 2005), those in the 65–74 and 75-or-older age groups on average spent $5,000–$5,700 and $2,900–$3,600, respectively. Not surprisingly, those in the 50–64 age group who were still in the labor market and not retired experienced the largest decline during the financial crisis compared with the other two older age groups who were less likely to be in the labor market. Depending on the survey year, the difference between the share of transportation costs in total expenses was between 4 and 6 percentage points lower for the 75-or-older age group compared with the 50–64 age group. For instance, in 2017, households ages 50–64 allocated 13.9 percent of their total expenses to transportation, compared with 9.7 percent for those 75 or older.

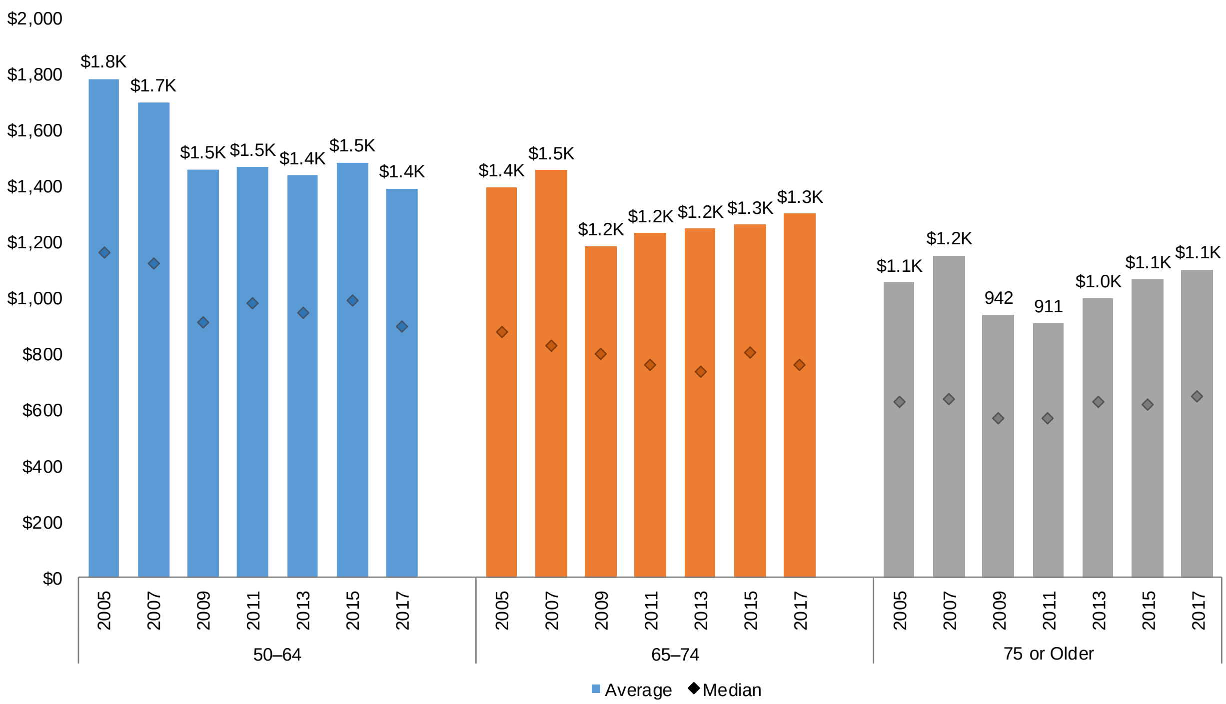
Since **clothing**, similarly to transportation, is considered a work-related expense, it is expected to decline as age increases. While the share of total expenses spent on clothing remained around 3 percent across all age groups and all survey years (Figure 4), as shown in Figure 8 in all survey years, the average dollar amount spent on clothing by older age groups was smaller compared with younger age groups. While the clothing expenses ranged from $1,400–$1,800 for the 50–64 age group, households with a member of the 75-or-older age group spent an average of $911–$1,200.

Share of total spending devoted to **entertainment** was lower only by 1 to 2 percentage points for the 75-or-older age group compared with the 50–64 age group (Figure 4); however, the reduction is more pronounced in Figure 9, where average (and median) entertainment costs are reported. For example, in 2017, the 50–64 and 65–74 age groups spent an average of $5,400 on entertainment, compared with $3,600 spent by those 75 or older.

The 50–64 age group lowered their entertainment expenses more than the two older age groups during the financial crisis (year 2009). In addition, there was an upward trend in average (and median) entertainment costs for all age groups in the survey years after 2009.



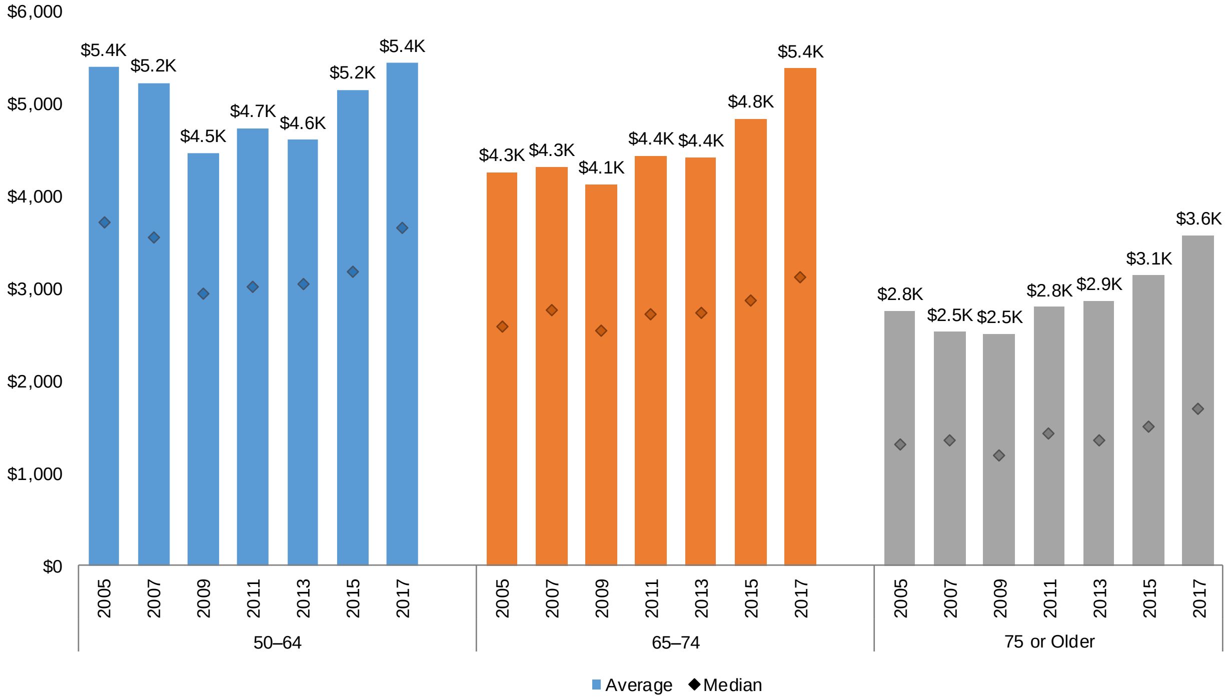
Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).



Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 9

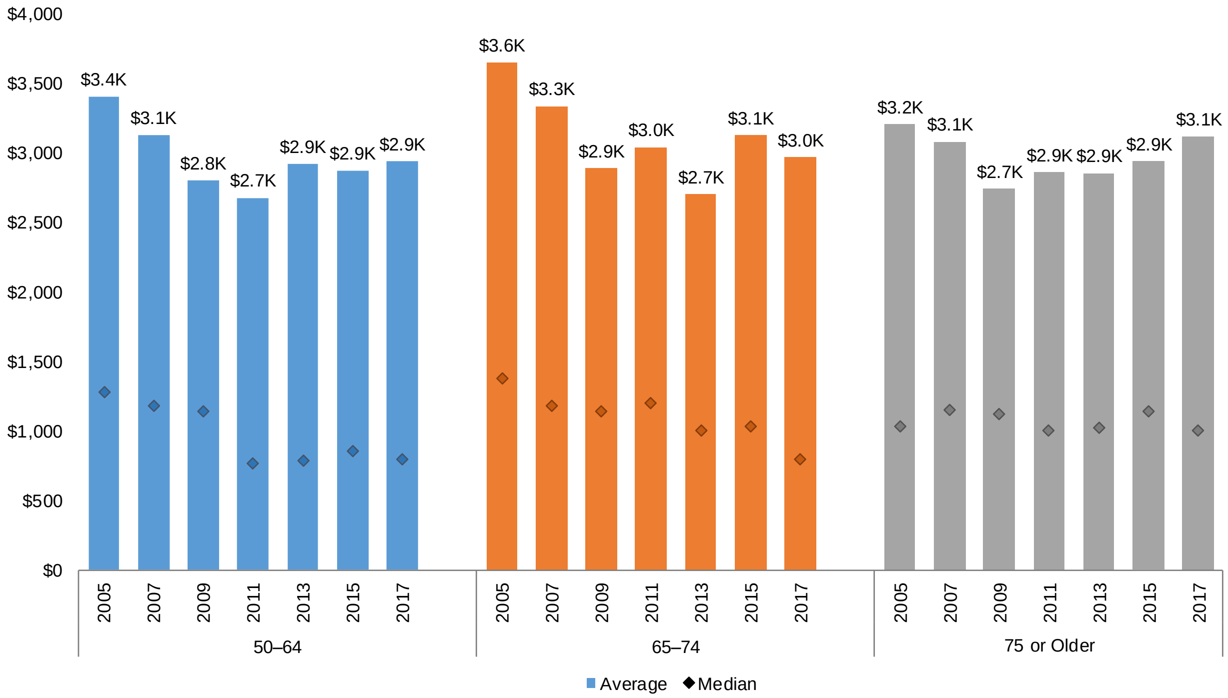
Average and Median Household Entertainment Expenditures, by Age, 2005–2017, in 2017 Dollars



Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 10

Average and Median Household Gift, Contribution, etc. Expenditures, by Age, 2005–2017, in 2017 Dollars



Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

While different age groups across all survey years on average spent similar dollar amounts on **gifts, contributions, etc**. (Figure 10), the proportion of total expenditures in this category increased with age. As shown in Figure 4, those 75 or older allocated 6.3 percent of their total spending to this category, compared with 4.7 percent spent by those ages 50–64.

Household Spending and Income Distribution

It is usually assumed that a household’s economic condition affects the household’s total budget with no significant impact on the proportions allocated to each spending category. However, evidence suggests that this assumption is not correct. Figures 11A and 11B shed some light on this, showing the average percentage of a household’s budget spent on basic categories for low- and high-income categories between 2005 and 2017. (For the purposes of this analysis, low-income and high-income households are defined as those with a total income less and more than the median for their age group and survey year, respectively.)

It is a known fact that low-income households spend a larger proportion of their budgets on basic needs and a smaller share of spending is allocated to basic needs as income grows. Our analysis supports this fact along with a few other interesting observations.

Across all age groups, for low-income households, a larger share of expenses was spent on housing and food compared with high-income households. For housing this difference is more noticeable for the 75-or-older age group. For instance, while in 2017, housing took up 48.8 percent of spending for this age group in low-income households, those with high incomes allocated 41.4 percent of their budget to housing. The fraction spent on food varied between 9 and 11 percent for all age groups in all survey years for the high-income group, while as much as 14 percent of low-income households’ total spending was on food. The average share of spending on out-of-pocket health costs varied by 1 to 2 percentage points across income distributions, except for the 75-or-older age group in year 2005, when the low-income households spent 14.7 of their budget on health care, compared with 11.2 percent spent by those in the high-income category.

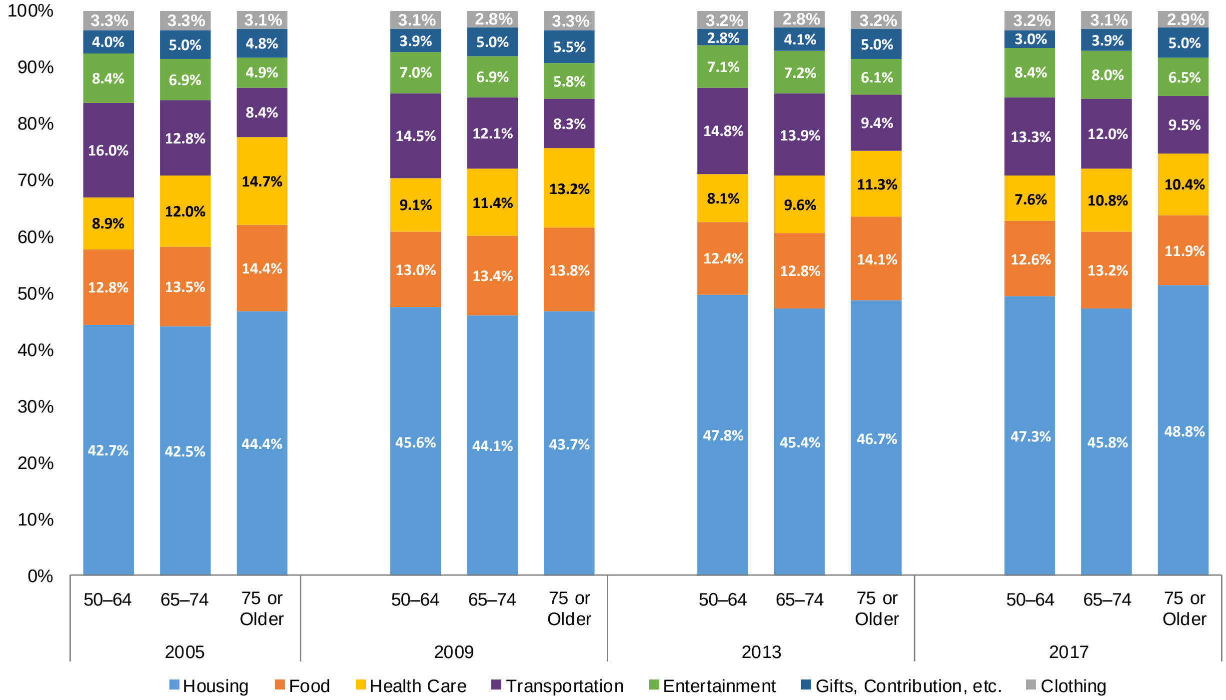
The average share of household budgets devoted to transportation and clothing did not appear to vary much by income distribution. However, interestingly, the increase in the average share spent on necessities such as housing and food was offset by a reduction in the average share of spending on entertainment and gifts and contributions. For instance, in 2017, those ages 75 or older with a high income on average spent 10.8 and 8.1 percent of their budget on entertainment and gifts and contributions, respectively, while those in the same age category with low incomes allocated just 6.5 and 5 percent of their budgets to these categories, respectively.

The data show that housing absorbs more of the average annual spending budget for those with low incomes than in the past. In 2005, those with low incomes in the ages 50–64, 65–74, and 75-or-older groups on average spent 42.7, 42.5, and 44.4 percent of their total budget on housing, respectively, compared with their counterparts in 2017, who spent 47.3, 45.8, and 48.8 of their budget on housing, respectively.

The share of household budget occupied by health care costs declined between 2005 and 2017, and this trend was most pronounced for those with low incomes in the 75-or-older age group. The average share of spending devoted to transportation and entertainment by those with high incomes was significantly reduced in 2009 (Great Recession) but has started to increase during the following years.

Figure 11A

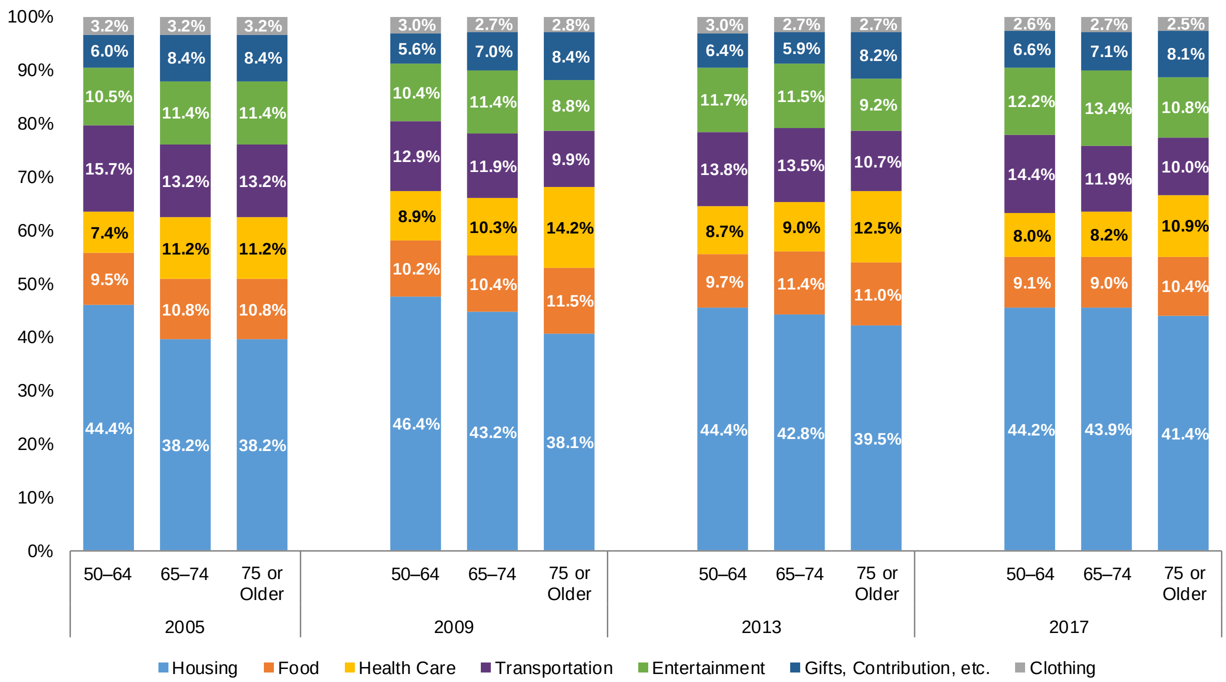
Share of Average Annual Spending on Major Spending Components, by Age and Year (Low Income)



Note: HRS Household weight applied for analysis. Percentages may not add to 100 due to rounding.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 11B

Share of Average Annual Spending on Major Spending Components, by Age and Year (High Income)

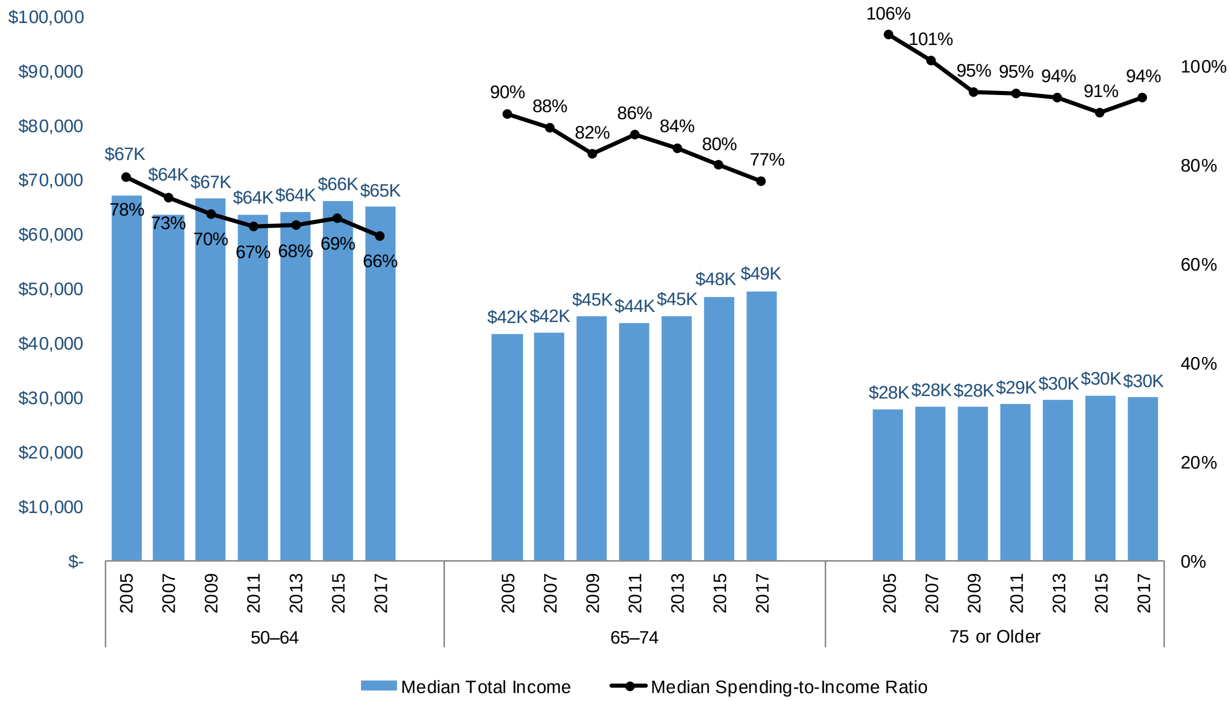


Note: HRS Household weight applied for analysis. Percentages may not add to 100 due to rounding.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Total Income, Non-Housing Wealth, and Total Spending

Figure 12 depicts households' median total incomes and median spending-to-income ratios by age group and survey year. As households grow older and retire, wage and salary income is eliminated from the sources of income, and consequently total household income declines. EBRI's research on the income composition of Americans 65 and older (Banerjee, 2013) shows that in 2009, the share of labor earnings in total income for those 65–74 was 11.9 percent, while during the same periods, those 75–84 derived 3.5 percent of their total income from labor earnings. Older age groups had higher median spending-to-income ratios than younger age groups who were still in the labor market, indicating that households were not reducing their spending in line with their lost wage and salary income. At the same time, there were even a few years when median spending for the oldest households exceeded income. This increased spending-to-income ratio for older households could reflect the goal of wealth accumulation during working ages and the goal of decumulation as households grow older.

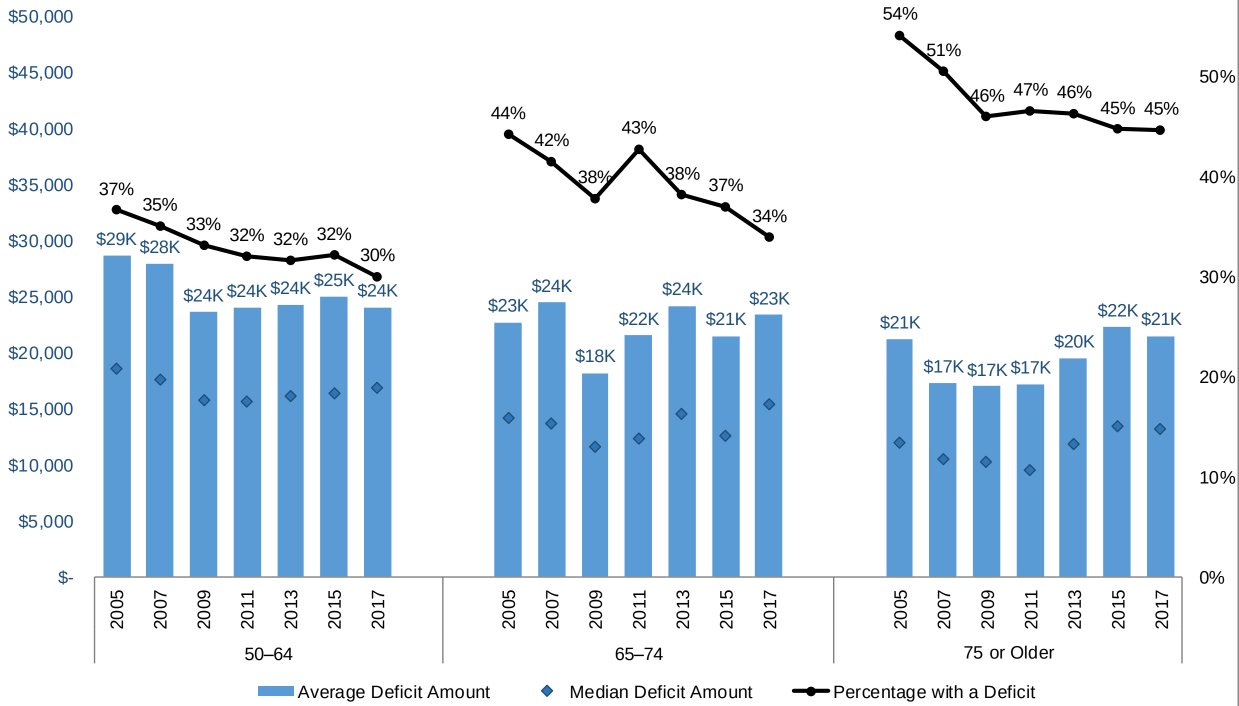
Figure 12
Median Total Income and Spending to Income Ratio, by Age, 2005–2017, in 2017 Dollars



Note: HRS Household weight applied for analysis.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Understanding whether households can cover their expenses with their income as they age, and if not, how large the gap is between their income and spending — the amount of spending that must be covered by other sources — is an important aspect of understanding and planning for financial security among the elderly. Figure 13 shows the percentage of households with a budget deficit — defined as having higher total spending than total income — along with average and median amounts overspent by age group and survey year. The probability of having a budget deficit increased with age; however, the average dollar amount of the deficit was lower for older age groups compared with younger age groups. For instance, in 2017, 30 percent of those ages 50–64 had budget deficits averaging $24,000. During that same period, 34 and 45 percent of households ages 65–74 and 75 or older experienced a budget deficit, respectively. However, the average amounts were $23,000 and $21,000, respectively. The fraction of households with a deficit declined between 2005 and 2017 for all age groups; however, the average amount overspent declined around the Great Recession for all age groups and started to gradually increase afterward. This trend confirms previous studies that show households cut spending and increased saving in response to reduction in income, wealth, and credit access during the Great Recession (Federal Reserve Bank of New York, 2013). In addition, it is in line with the findings of the Society of Actuaries analysis of retirees' spending, which indicates that households reduce their spending when it is necessary.

Figure 13
Percentage With a Deficit and Average Deficit Amount (Conditional on Having a Deficit), by Age, 2005–2017



Note: HRS Household weight applied for analysis. Deficit refers to when spending is more than income.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 14 looks at median total net non-housing wealth across age groups and survey years for those households with and without an annual budget deficit.

Non-housing wealth is defined[3] as the sum of the net value of vehicles owned; individual retirement accounts (IRAs)[4]; stocks and mutual funds; checking, savings, and money market accounts; certificates of deposit (CDs); government savings bonds; Treasury bills, and bonds and bond funds; and any other source of wealth (such as real estate outside of primary and secondary residences) minus all other debt, such as consumer loans.

A budget deficit does not necessarily mean that a household cannot sustain its expenditures. The household might have enough savings to cover the gap. Figure 14 shows that the median level of non-housing wealth was much lower for households with deficits than for households without deficits. For example, in 2016, the median total non-housing wealth for the 75-or-older age group with a budget surplus was $114,000, compared with $58,000 for households with a budget deficit. However, as shown in figures 15 and 16, this pattern changes when we look at the median non-housing wealth conditional on income levels. Figure 15 shows that, across most survey years, low-income households with a deficit had an equal or higher median non-housing wealth compared with those without a deficit. This pattern was also true for high-income households (Figure 16). Although the probability of running into a deficit was much lower for this group of households relative to those with low incomes (figures 15A and 16A), for those 65 and older, the

[3] Definition from RAND HRS.

[4] Does not include assets in an employer-provided retirement plan such as a 401(k).

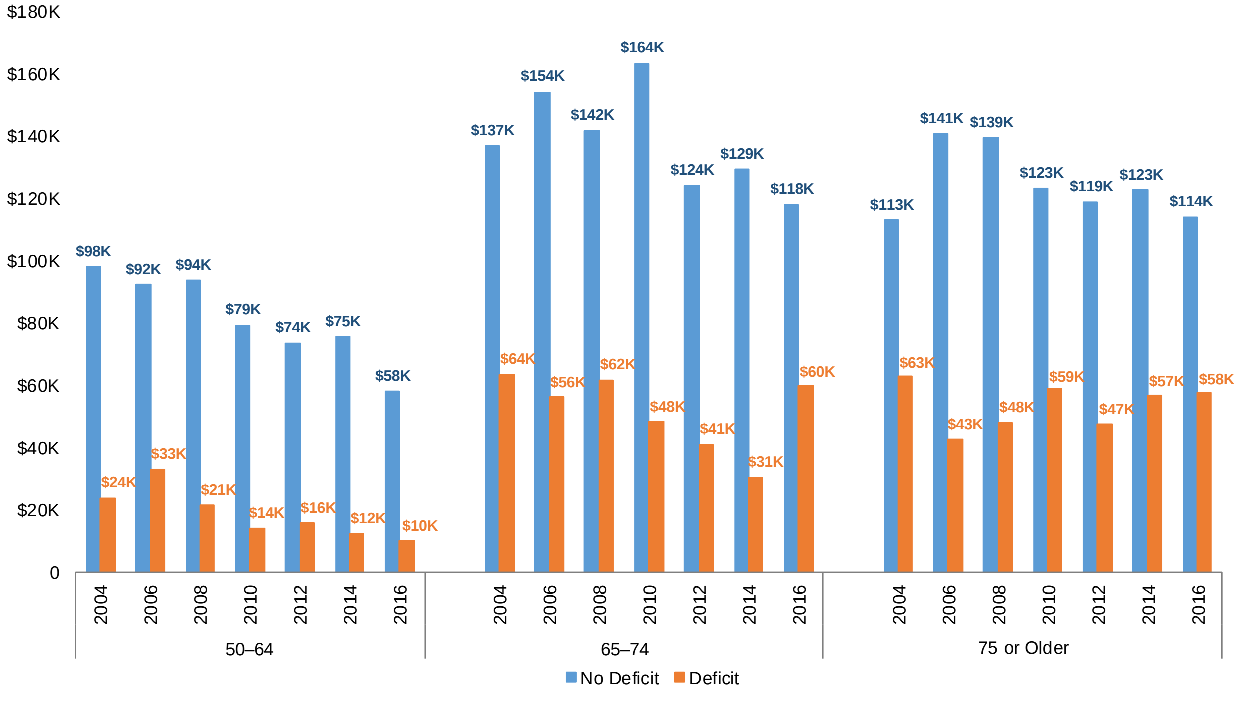
median non-housing wealth was similar or higher for households with a deficit than those with no deficits. This could indicate that, regardless of income levels, households with a deficit rely on their liquid assets in order to cover their expenses as they age and lose their labor earnings.

Figure 14 also shows that median non-housing wealth increases with age but levels off and even declines as households reach ages 75 or older. This could be an indication that this oldest age group is starting to decumulate assets.

However, as shown in Figure 16, for those with high incomes and in the 65–74 and 75-or-older age groups, the median non-housing wealth did not fluctuate for those without a deficit as much as it did for those with deficits. This could suggest that when households have sufficient income, they tend to spend within their means and are less inclined to spend down their assets at older ages.

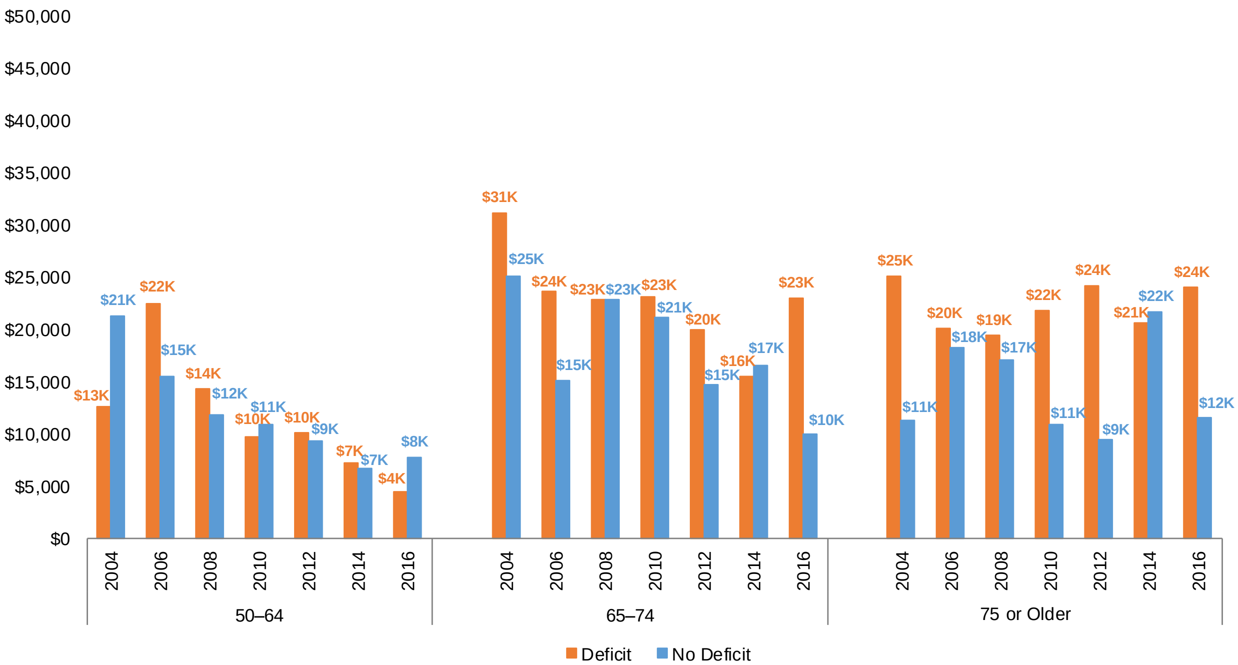
Figure 17 looks at the median deficit-to-non-housing-wealth ratios in total and by income level for households with a deficit. Households in the 65–74 and 75-or-older age groups needed to spend down lower amounts of their non-housing wealth in order to cover their deficit compared with those in the 50–64 age group. While this pattern held true among those with high incomes, who are most likely to also have a high wealth level, low-income households needed larger fractions of their non-housing wealth in order to cover the gap between their spending and income. This could indicate that compared with high-income households, those with low incomes are more likely to spend down their liquid assets to cover their expenses as they grow older.

Figure 14
Median Total Net Non-Housing Wealth, by Spending Behavior and Age, 2004–2016, in 2017 Dollars



Note: HRS Household weight applied for analysis. Deficit refers to when spending is more than income.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 15
Median Total Net Non-Housing Wealth, by Spending Behavior and Age (Low Income), 2004–2016, in 2017 Dollars



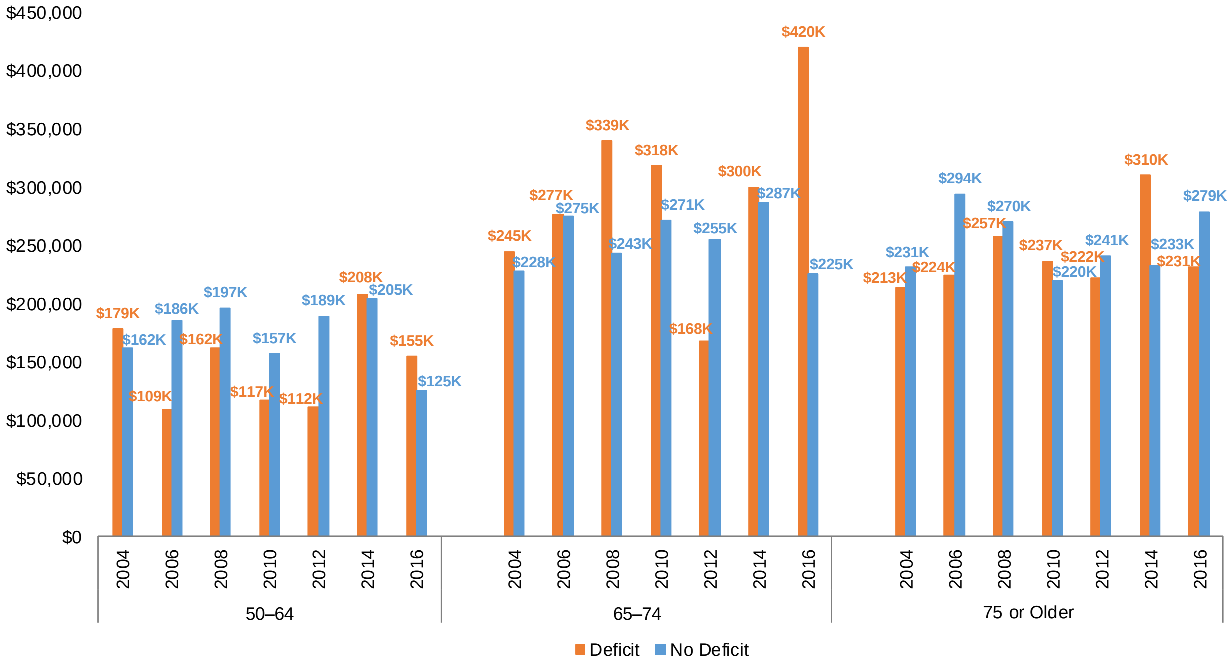
Note: HRS Household weight applied for analysis. Deficit refers to when spending is more than income.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 15A
Percentage With Deficits, by Age and Year (Low Income)

	50–64							65–74							75 or Older						
	2004	2006	2008	2010	2012	2014	2016	2004	2006	2008	2010	2012	2014	2016	2004	2006	2008	2010	2012	2014	2016
Percentage With Deficits	60	57	58	56	54	53	54	67	65	60	65	59	56	55	70	69	64	66	69	66	62

Note: HRS Household weight applied for analysis. Deficit refers to when spending is more than income.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 16
Median Total Net Non-Housing Wealth, by Spending Behavior and Age (High Income), 2004–2016, in 2017 Dollars

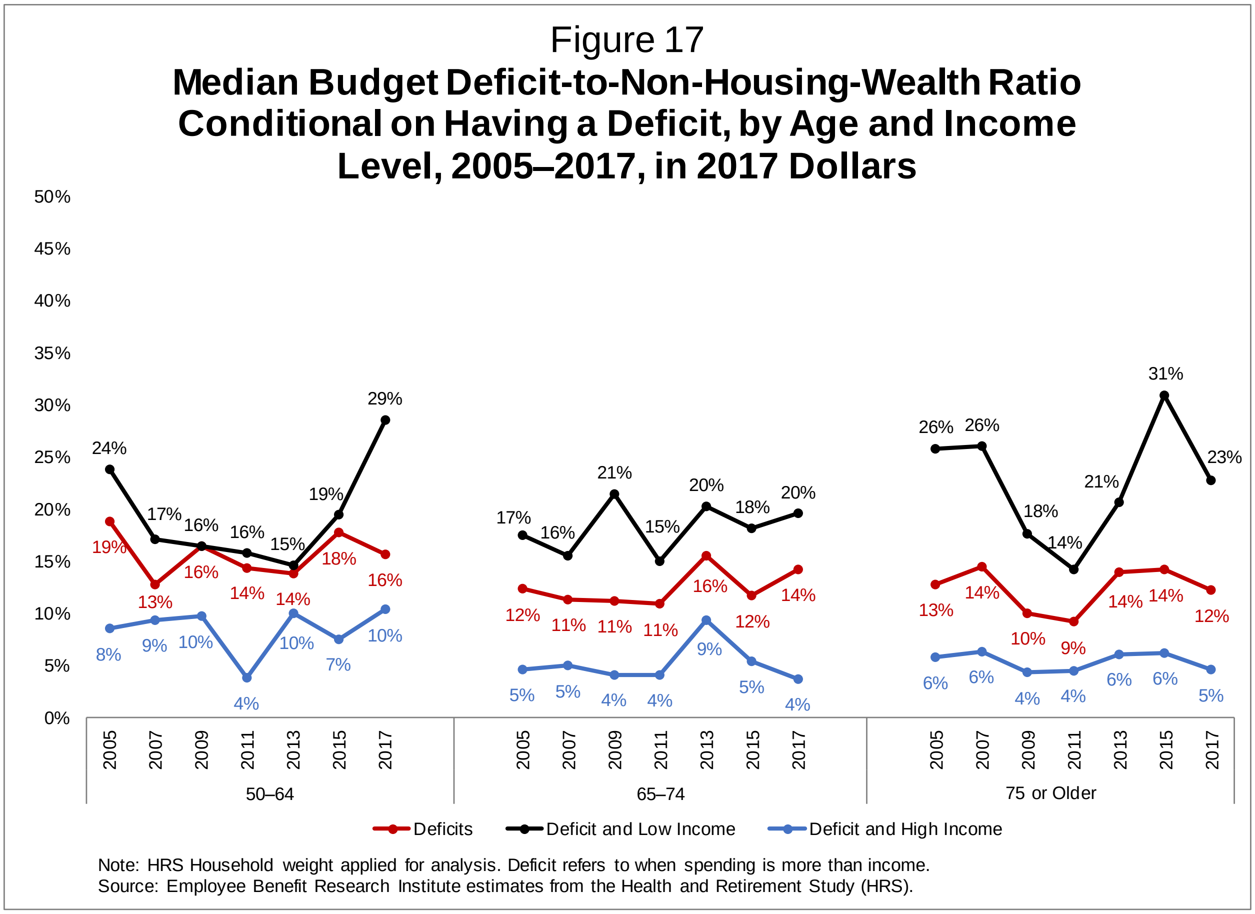


Note: HRS Household weight applied for analysis. Deficit refers to when spending is more than income.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 16A
Percentage With Deficits, by Age and Year (High Income)

	50–64							65–74							75 or Older						
	2004	2006	2008	2010	2012	2014	2016	2004	2006	2008	2010	2012	2014	2016	2004	2006	2008	2010	2012	2014	2016
Percentage With Deficits	12	12	7	7	8	11	9	21	19	16	19	17	18	14	38	31	29	29	25	26	30

Note: HRS Household weight applied for analysis. Deficit refers to when spending is more than income.
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).



Conclusion

As more and more American workers approach retirement age, it is important to understand their likely spending patterns over time. Qualitative research, like that of the Society of Actuaries focus groups, suggests that people spend more early in retirement and gradually decrease their spending as they age. This research also suggests that retirees are adept at adjusting their consumption as needed in order to fit their circumstances, such as reducing spending in times of a market downturn or recession.

EBRI's study of CAMS and HRS data tends to support these findings. The data show that average annual total spending declined as households aged. Indeed, those ages 75 or older were spending on average a third less than those ages 50–64. At the same time, not all spending decreased; while spending on housing, transportation, and food, for example, decreased with age, the share of household budget occupied by health care spending increased with age.

The data also show that for older households, the composition of spending was different depending on income level. Lower-income older households spent more of their budget on necessities such as housing and food and less on entertainment and gifts and contributions.

Older age groups had higher median spending-to-income ratios than younger age groups who were still in the labor market. There were even a few years when median aggregate spending for the oldest households exceeded income. This indicates that households were not reducing their spending in line with their lost wage and salary income.

The probability of having a budget deficit increased with age; however, the average dollar amount of the deficit was lower for older age groups compared with younger age groups. Consistent with the assumption that retirees adjust their spending to circumstances, the data show that the average amount overspent declined around the Great Recession for all age groups and started to gradually increase afterward.

When it comes to non-housing wealth, the data show it increased with age but leveled off and even declined as households reached 75 or older. This could be an indication this oldest age group is starting to decumulate assets. At the same time, median non-housing wealth for those with high incomes and no deficit remained unchanged for the most part for older age groups, suggesting a desire to maintain assets as household age.

Clearly, the notion that spending in retirement is consistent over time is not justified according to this data. EBRI will continue to explore this topic along with the Society of Actuaries.

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Appendix I: About the Data

- The HRS dataset provides information on those within the U.S. population over the age of 50 through a biennial survey of a representative sample from that population. The HRS is the most comprehensive survey of older Americans in the nation and covers topics such as health, assets, income, and labor force status in detail. The survey started in 1992 and every five to six years a new cohort has been added. The initial sample consisted of individuals born between 1931 and 1941. The study is sponsored by the National Institute on Aging (NIA) and the Social Security Administration (SSA) and administered by the Institute for Social Research (ISR) at the University of Michigan. In this study, the 2004–2016[5] waves are used.

- The second data source used in this study is CAMS, which was started in 2001 as a supplement to the HRS. From the participants in the 2000 HRS, 5,000 households were selected at random and mailed the CAMS questionnaire. In coupled households, the questionnaire was sent randomly to one of the two spouses. Since 2001, CAMS has been conducted every two years. It collects spending information on 32 categories (six durable and 26 nondurable categories). In this study, the 2005–2017 waves are used to be merged with the HRS.

Expenditure Categories:

- **Housing expenses:** sum of mortgage payments, property taxes, homeowner's or renter's insurance, rent, utilities, home repairs, home furnishings, cleaning supplies, housekeeping and laundry services, gardening and yard supplies, and gardening and yard services.

- **Food expenses:** includes food and drink, including alcoholic beverages that are bought in grocery and other stores. Dining out is not included.

- **Health expenses:** include out-of-pocket (uninsured) health insurance costs, including Medicare supplemental insurance; out-of-pocket costs on prescription and nonprescription drugs; out-of-pocket costs of hospital care, doctor services, lab tests, eye, dental, and nursing home care; and out-of-pocket costs for medical supplies.

- **Transportation expenses:** include car payments (principal and interest), vehicle insurance, vehicle maintenance, and gas.

- **Clothing expenses:** include clothing and apparel (including jewelry), as well as personal-care products and services.

- **Entertainment expenses:** sum of trips and vacations, tickets to movies and sporting or performing arts events; hobbies and leisure equipment (photography, reading, camping, etc.); dining out in restaurants, cafes, and diners; and take-out food.

- **Other expenses:** include contributions to religious, educational, charitable, or political organizations, and cash and gifts to family and friends outside the household (including alimony and child support payments).

[5] The RAND HRS, which is a cleaned and streamlined version of HRS raw data, is only available until 2016.

The income measure is taken from the RAND HRS and it is important for our analysis to note the components as listed below:

- **Labor income:** sum of wage and salary income; bonuses, overtime pay, commissions, and tips; second job income; and professional-practice or trade income.
- **Capital income:** sum of business or farm income, self-employment earnings, business income, gross rent, dividend and interest income, trust funds or royalties, and other-asset income.
- **Pension/annuity income:** sum of all pension and annuity payments. This includes income from defined benefit pensions and annuities, as well as income from other retirement savings such as 401(k) plans and individual retirement accounts (IRAs).
- **Social Security income:** includes Social Security retirement, spouse, and widow or widower benefits.
- **Other income:** sum of Social Security disability benefits, unemployment and workers' compensation, veterans' benefits, food stamps, alimony, lump sums from insurance, pensions, and inheritance.

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