

Four Decades of Senior Income Growth: A 2023 Update

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In an earlier paper, we documented a remarkable increase in senior citizens' household incomes from 1982 to 2018. These gains occurred in absolute terms and relative to non-senior households. They were also broad-based, occurring across the senior income distribution, household type, and education level. This paper serves as an addendum to our earlier work. Newly released data from the Federal Reserve's Survey of Consumer Finances (SCF) allow us to supplement these earlier findings with newer income and asset estimates. The results show that the income growth among seniors continued through 2021. This includes a large increase in reported investment income as well as further increases in labor earnings among seniors.

Keywords: Senior incomes, elderly employment, retirement income, defined contribution retirement plans, defined benefit retirement plans, Survey of Consumer Finances, Current Population Survey

JEL Codes: D31, E21, E24, J14, J32, H55

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Introduction

In Cogan and Heil (2022a), we documented income trends among senior households over the last four decades. These trends were derived from the Survey of Consumer Finances (SCF), a triennial survey by the Federal Reserve.¹ The October release of the 2022 survey provides an opportunity to understand how the identified trends may have changed since the COVID-19 pandemic. In this paper, we supplement our earlier analysis with these new data. We find that the senior income gains and the underlying trends have largely continued since 2018.

In our earlier work, we found that senior household incomes grew significantly over the last four decades in both absolute and relative terms.² Real median incomes among senior households grew by 85 percent from 1982 to 2018.³ The gains were broad-based, appearing among various household types and ages and across the senior income distribution. The growth in senior incomes far outpaced the growth among non-senior households. The result is that by 2015 the median income for senior households was statistically equivalent to the median of non-senior households after adjusting for differences in household size and taxes. The primary drivers of the long-term growth in senior incomes were increased labor earnings and rising investment income, particularly from retirement plans. The labor earnings growth was due to both an increase in employment and higher wages among working senior men and women. The growth in income from retirement plans was due to nearly equal increases in income from defined contribution (DC) plans (e.g. IRAs, 401ks) and defined benefit (DB) plans. Social Security played a relatively minor role in total income growth. While real Social Security benefits nearly doubled from 1982 to 2018, the increase only accounted for 20 percent of seniors' average income gains over that period.

The COVID-19 pandemic and the subsequent policy response upended labor markets and altered asset values. A priori, it is unclear how these changes would affect senior incomes. The rise in

¹ In Cogan and Heil (2022b), we provide an overview of how we standardized relevant variables in the SCF to account for changes in the survey over time.

² Senior households are defined as households where the respondent was age 65 or older. Except for when we calculate household-size adjusted income, our estimates include only income and asset data from the members of the primary economic unit (PEU). The SCF also provides limited data on individuals in a household who are financially independent from the PEU. These individuals are referred to as NPEUs.

³ Annual income data from the SCF are based on income earned in the year before the survey, *i.e.*, income variables in the 2022 survey correspond to 2021 household incomes. Our income definition is akin to the U.S. Census Bureau's "money income" definition. It includes annual earnings (from wages or business income), Social Security benefits, other cash subsidies from government (excluding refundable tax credits or rebates), pension income, withdrawals from defined contribution plans, interest income, dividends, rental income, realized capital gains, and other cash income sources. We do not include unrealized gains or net imputed rental income.

asset values from 2019 to 2022 would be expected to produce an increase in income from nonretirement plan investments and from retirement plan withdrawals. The pandemic's shock to the labor market, however, initially caused a sharp reduction in employment among seniors. Since the initial decline, their employment rate has partially rebounded while real wages have grown.

To determine how income and asset trends have changed since the last survey, this paper uses data from the 2022 SCF to update the relevant tables and figures in Cogan and Heil (2022a).⁴ To allow for a direct comparison to our early work, all income and asset values are inflation-adjusted to 2020 dollars.⁵ Importantly, this paper is not intended as an exhaustive analysis of the income and asset trends since the 2019 survey; instead, it serves as an addendum to the earlier paper.⁶

Updated Findings

As shown in figure 1, real median incomes among seniors grew by 3.9 percent from 2018 to 2021, which was not statistically significant.⁷ Younger households experienced larger income gains with the median rising by a statistically significant 8.8 percent over the same period.



Figure 1. Median income for senior and non-senior households

Notes: Income is inflation-adjusted using the PCE price index. Bars reflect the 95 percent confidence interval.

⁴ Documentation and data files for the 2022 SCF are available at <u>https://www.federalreserve.gov/econres/scfindex.htm</u>.

⁵ As with the 2022 paper, we use the Personal Consumption Expenditures (PCE) price index to adjust for inflation.

⁶ As explained in Cogan and Heil (2022b) we perform certain imputations for missing data in early years. These imputations rely on data for more recent survey years from SCF. We perform the imputations again with data from the 2022 SCF. This may produce small discrepancies between the statistics presented here and in Cogan and Heil (2022a). ⁷ We calculate bootstrapped standard errors using the user-generated Stata package SCFSES. This method accounts for the imputation and sampling variability in the SCF. See footnote 17 in Cogan and Heil (2022a) for an overview.

Consequently, the ratio of senior to non-senior median incomes fell slightly from 2018 to 2021. Nevertheless, the long-term growth in senior incomes continued to dwarf the growth among non-seniors. From 1982 to 2021, median income rose 93 percent among seniors compared to 35 percent for non-seniors. The result is that after adjusting for taxes and household size, median incomes for senior households remained statistically equal to non-senior median incomes. Table 1 reports these ratios for 2018 and 2021.⁸

	SCF (2018)	SCF (2021)
Pre-tax median	71%	72%
Post-tax median	79%	77%
Adjustment for HH size and taxes	99%	101%

Table 1. Ratio of senior and non-senior median incomes with tax and size adjustments

Notes: Data from 2019 and 2022 SCF. Household size adjustment follows U.S. Census Bureau method.

Table 2 reports the aggregate growth in incomes of different demographic subgroups from 1982 to 2018 and 2021. With two exceptions, senior incomes grew across age groups, marital status, and education. There were slight reductions in the long-term growth among households with older respondents (age 75 and older). Their aggregate growth, however, was still more than any other age group, rising by 141 percent in real terms since 1982. In addition, those with some college (but no degree) experienced small declines in real incomes from 2018 to 2021.

0	1982	to 2018	1982	to 2021
	Seniors	Non-seniors	Seniors	Non-seniors
Marital status				
Married	108%	50%	140%	56%
Single Female	82%	21%	94%	25%
Single Male	69%	5%	71%	4%
Age				
Under 65		24%		35%
65-69	43%		43%	
70-74	108%		137%	
75 and older	147%		141%	
Education				
High school or less	47%	6%	64%	6%
Some college	27%	2%	22%	13%
Bachelors or higher	55%	20%	74%	28%

Table 2. Real growth in median income

Notes: Data are from SCF. Income is inflation-adjusted using the PCE price index.

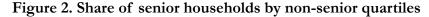
⁸ The income measurement used for table 1 includes income from members of the household that are financially independent for the household head (NPEUs).

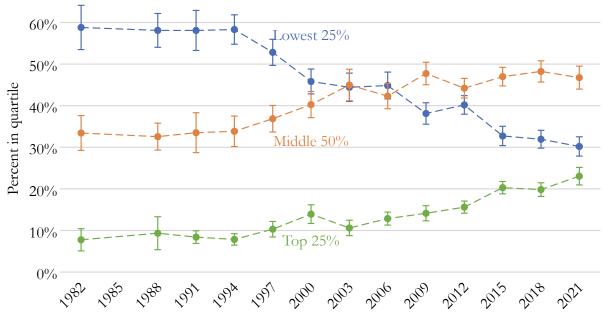
Table 5: Income at various percentiles for semors and non-semors (2020 donars)							
	25th percentile		М	ledian	75th percentile		
	Seniors	Non-Seniors	Seniors	Non-Seniors	Seniors	Non-Seniors	
1982	\$13,200	\$29,200	\$25,300	\$51,400	\$46,000	\$82,000	
2018	\$25,700	\$33,100	\$47,000	\$63,600	\$89,2 00	\$117,700	
2021	\$25,900	\$35,900	\$48,800	\$69,200	\$95,600	\$121,900	
Growth							
1982 to 2018	94%	13%	85%	24%	94%	44%	
1982 to 2021	96%	23%	93%	35%	108%	49%	

Table 3. Income at various percentiles for seniors and non-seniors (2020 dollars)

Notes: Data are from SCF. Income is inflation-adjusted using the PCE price index.

As shown in table 3, income growth among senior households continued across the income distribution. The 25th and 75th percentiles of senior incomes rose in real terms from 2018 to 2021, by an inflation-adjusted 1 percent and 7 percent, respectively. Like the median, the gains at the 25th percentile were not statistically significant. The increase for households at the 75th percentile was significant at the 10 percent level. From 1982 to 2021, income growth at the 25th and 75th percentiles outpaced the growth in median senior incomes and far outpaced the growth among non-seniors.





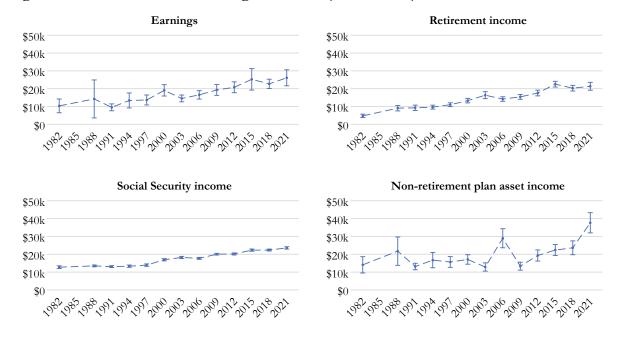
Notes: Data are from SCF. Bars reflect the 95 percent confidence interval.

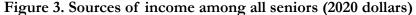
As shown in figure 2, the broad-based growth in incomes has moved most seniors firmly into the middle class. In 2021, just under 50 percent of senior households had incomes that placed them in the middle 50 percent of the income distribution among all younger households. Twenty-three percent of senior households had incomes that placed them in 25 percent of non-seniors.

Given the confidence interval, seniors households were, for the first time ever, statistically as likely to be in the top 25 percent of incomes as non-seniors.

Income by Type

Figure 3 disaggregates senior households' mean income by source. Most income sources grew between 2018 and 2021. Mean real labor earnings grew by 15 percent, although the increase was only statistically significant at the 10 percent level. Social Security income grew by a statistically significant 5 percent in real terms. Investment income from assets held outside of retirement plans rose by a remarkable 59 percent from 2018 to 2021. Income from retirement plans grew by a statistically insignificant 5 percent over the same period. We discuss the underlying causes of these trends later in this section.





Notes: Data are from SCF. Income is inflation-adjusted using the PCE price index. Bars reflect the 95 percent confidence interval.

These short-term changes in income sources do not materially affect the long-term trend in the composition of senior household income identified in Cogan and Heil (2022a). Table 4 reports the aggregate growth in the mean of each source of income from 1982 to 2021. The mean retirement income among seniors grew 349 percent, far more than the growth in non-retirement plan investment income (168 percent). Labor earnings grew by 152 percent over the same period. Meanwhile, Social Security income grew by 85 percent. The result is that over 80 percent of the growth in senior households' mean incomes can be attributed to the combination of labor earnings, retirement plans, and investment income. Despite growing by 5 percent in real terms, Social Security benefits play an even smaller role in senior income growth than they did from 1982 to 2018.

	Mean income	Earnings	Social Security	Retirement	Investment
Share of income					
1982		24%	30%	11%	33%
2018		25%	24%	22%	26%
2021		23%	21%	19%	34%
Growth					
1982 to 2018	112%	119%	75%	326%	68%
1982 to 2021	157%	152%	85%	349%	168%
Contribution to					
income growth					
1982 to 2018		25%	20%	32%	20%
1982 to 2021		23%	16%	24%	35%

Table 4. Sources of income among all seniors

Notes: Data are from SCF. Mean income is inflation-adjusted using the PCE price index.

There remain important differences in sources of income between lower- and upper-income senior households. These differences are reported in table 5. Senior households with incomes below the senior household median (termed the lower-income half) remain heavily dependent on Social Security. On average, the program accounted for 65 percent of their income. For this group, Social Security income rose 12 percent in real terms from 2018 to 2021. Meanwhile, labor earnings and non-retirement plan income remained flat for the lower half, while income from retirement plans fell by 13 percent. From 1982 to 2021, Social Security accounts for 65 percent of the growth in mean total income, followed by retirement plan income (24 percent) and earnings (15 percent). Adjusted for inflation, non-retirement plan investment income for lower-income senior households declined.

Senior households with incomes above the senior household median (termed the upperincome half) experienced statistically significant increases in non-retirement plan income from 2018 to 2021. As we discuss below, this was primarily due to increased capital gains and rental income. Labor earnings growth was significant at the 10 percent level. Retirement plan income and Social Security income rose, but the change was not statistically significant. The upper-income half of seniors continue to receive a disproportionate share of Social Security benefits. In 2021, the mean Social Security benefit among upper-income households was 53 percent larger than the mean among lower-income households. This can also be seen in wealth data. In 2021, the wealthiest 10 percent of senior households received, on average, more than twice as much from Social Security as seniors in in the bottom 10 percent. As noted in the earlier paper, these differences are due in part to higher career earnings among upper-income household members and the fact that a larger portion of upper-income households are married couples.

		Lower	half		
	Mean income	Earnings	Social Security	Retirement	Investment
1982	\$14,400	\$700	\$10,100	\$1,200	\$1,200
2018	\$26,200	\$2,600	\$16,600	\$5,000	\$700
2021	\$27,500	\$2,600	\$18,600	\$4,300	\$700
Share of income					
1982		5%	70%	8%	8%
2018		10%	63%	19%	2%
2021		10%	68%	16%	2%
Growth					
1982 to 2018	83%	299%	64%	312%	-44%
1982 to 2021	91%	303%	85%	259%	-43%
Contribution to income growth					
1982 to 2018		16%	55%	32%	-4%
1982 to 2021		15%	65%	24%	-4%
		Upper	half		
	Mean income	Earnings	Social Security	Retirement	Investment
1982	\$72,100	\$20,000	\$15,500	\$8,300	\$26,900
2018	\$157,200	\$42,700	\$28,200	\$35,500	\$46,500
2021	\$194,900	\$49,500	\$28,500	\$38,400	\$74,600
Share of income					
1982		28%	21%	12%	37%
2018		27%	18%	23%	30%
2021		25%	15%	20%	38%
Growth					
1982 to 2018	118%	113%	82%	328%	73%
1982 to 2021	170%	147%	85%	362%	177%
Contribution to					
income growth					
1982 to 2018		27%	15%	32%	23%
1982 to 2021		24%	11%	24%	39%

Table 5. Sources of income among seniors by income level

Notes: Data are from SCF. Income is inflation-adjusted to 2020 dollars using the PCE price index. The income distribution is limited to households headed by seniors.

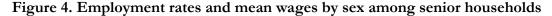
From 1982 to 2021, non-retirement plan investment income accounted for 39 percent of the increase in mean income among upper-income households; this is a notable increase compared to

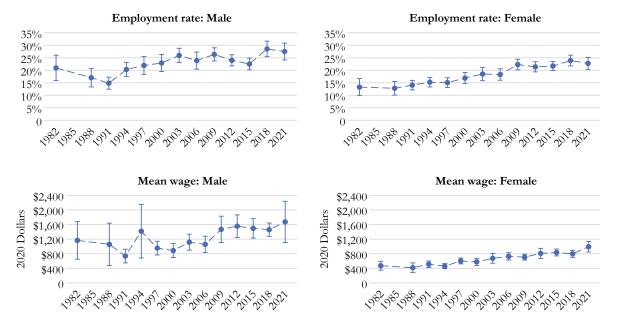
the 1982 to 2018 change. Labor earnings and retirement plan income each accounted for 24 percent of their growth from 1982 to 2021. Social Security, despite nearly doubling since 1982, only accounts for 11 percent.

We now offer a few observations on the underlying causes behind the changes identified in each income source. We begin with labor earnings, followed by retirement income, non-retirement plan investment income, and finally Social Security.

Labor Earnings

Labor earnings grew by 15 percent from 2018 to 2021. Figure 4 shows the employment rate and mean weekly wages by sex.⁹ Employment rates fell slightly for both men and women, but the changes were not significant. This is consistent with Census Bureau data, which show that senior employment rates have largely rebounded since the COVID-19 pandemic.¹⁰ Male employment had fallen after the 2008 recession and recovered by 2018. Employment in 2021 is close to its 2018 peak. From 2018 to 2021, mean wages rose for both men and women. The change was statistically significant for women, but not so for men.





Notes: Data are from SCF. Wages are inflation-adjusted using the PCE price index. Data are for household head and spouse (if present).

⁹ In Cogan and Heil (2022a), we reported the median wage by sex. We opt for the means here to better understand the growth in overall mean earnings. Median wages by sex are presented in the appendix.

¹⁰ The employment-to-population ratio among men in the Current Population Survey was 22.8 percent in September 2023, down 1.6 percentage points from its September 2019 level but well above April 2020 low (19.9 percent). Among women, the ratio has nearly returned to its pre-COVID levels. The ratio was 16.0 percent in September 2019 and 15.8 percent in September 2023. The rate had fallen to 12.6 percent in May 2020. These data are not seasonally adjusted.

As noted above, labor earnings among lower-income senior households remained flat between 2018 to 2021, while upper-income senior households increased. Flat labor earnings among lower-income senior households is explained by a combination of offsetting factors. The female employment rate fell from 16.8 percent to 13.6 percent, a statistically significant decline. This decline was offset by an increase in the male employment rate from 13.2 percent to 19.1 percent and by statistically significant increases in male and female wages of 31 percent and 20 percent, respectively.

The growth in labor earnings among upper-income households was driven by statistically significant increases of 33 percent among working men and 23 percent among working women, which were partially offset by a significant decline in the male employment rate. The female employment rate remained essentially flat.

Retirement Plan Income

Retirement plan income rose by 5 percent from 2018 to 2021. As shown in figure 5, the mean defined benefit (DB) plan income fell by 12 percent among all senior households. This represents a nearly \$1,600 drop from 2018 to 2021. Increased withdrawals from defined contribution (DC) plans offset all of the decline in DB income. From 2018 to 2021, DC plan income rose \$2,700 among all senior households, a 40 percent increase in mean withdrawals.

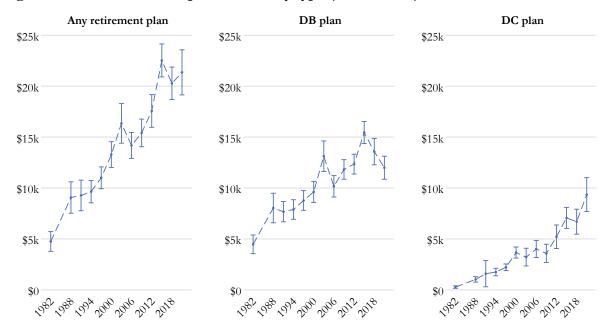
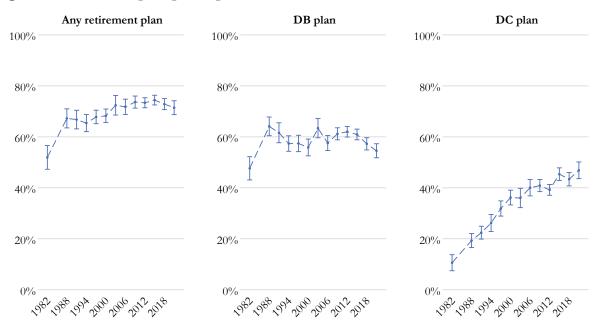


Figure 5. Senior retirement plan income by type (2020 dollars)

Notes: Data are from SCF Defined contribution plans include IRAs. Bars reflect the 95 percent confidence interval.

The changes in the composition of retirement plan income reflect notable changes in plan participation. Figure 6 shows participation by type of retirement plan. Participation in defined benefit plans fell 3 percentage points, a 5 percent drop. This continued a downward trend that began in 2012. Meanwhile, the share of seniors with DC plans rose by 4 percentage points, or about 8 percent. Overall, participation in all types of retirement plans remained flat from 2018 to 2021.





Notes: Data are from SCF Defined contribution plans include IRAs. Bars reflect the 95 percent confidence interval.

Among plan participants, there were notable changes in plan income. Figure 7 shows retirement income among plan participants. Overall, retirement income among those with DB or DC plans rose slightly, but this change was not statistically significant. DB plan income fell, but again this change was not statistically significant. The decline continued a downward trend since 2015. Withdrawals from DC plans, meanwhile reached new heights, increasing by nearly \$4,600 per senior household with DC plan assets, a statistically significant increase over 2018. The rise in DC withdrawals likely reflects, in part, a sharp increase in asset values. From 2018 to 2021, the S&P 500 rose 90 percent.¹¹ Mainly as a consequence of rising asset values, the mean value of DC plans rose 65 percent across all seniors, and 55 percent among plan participants.¹² Both increases were

¹¹ Measured from the closing value at the end of each December.

¹² Unlike income sources, the SCF asset questions are as of the survey question rather than the preceding year. Thus, the asset changes are from 2019 to 2022 for most respondents.

statistically significant. The growth in DC plan assets is shown in figure 8. The gains in asset values far outpace the gains in withdrawals.

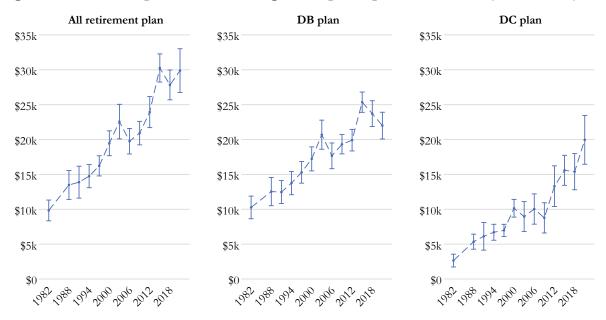
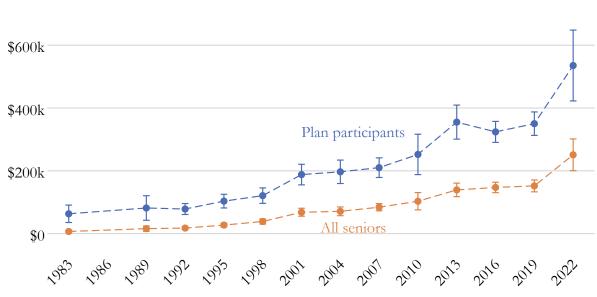


Figure 7. Retirement plan income among senior participant households (2020 dollars)

Notes: Data are from SCF. Income is inflation-adjusted using the PCE price index. Defined contribution plans include IRAs. Bars reflect the 95 percent confidence interval.

Figure 8. Mean DC assets among participating seniors (2020 dollars)

\$800k



Notes: Data are from SCF. Assets are inflation-adjusted using the PCE price index. Defined contribution plans include IRAs.

Like labor earnings, lower- and upper-income households experienced different changes in income from retirement plans from 2018 to 2021. Lower-income households experienced a statistically significant drop in retirement plan income (11 percent), while retirement plan income rose by 10 percent among upper-income senior households. The decline among lower-income households was driven by a significant reduction in DB plan participation. The share of households with DC plan assets rose slightly but the change was insignificant. Lower-income households did benefit from rising asset values, with DC assets rising by 58 percent among all lower-income senior households and 56 percent among those with plans. Unsuprisingly, seniors in the upper half, saw large increases in DC plan assets as well (67 percent across upper-income households and 50 percent for plan participants).

Non-Retirement Plan Investment Income

As shown in table 6, the large increase in non-retirement plan income was primarily due to increases in rental income and realized capital gains. From 2018 to 2021, mean realized capital gains among all seniors rose 103 percent, rental income rose 53 percent, dividend income rose 31 percent, and interest income rose a statistically insignificant 8 percent.

	All sources	Interest	Dividends	Rental	Realized Capital Gains
Share receiving					
1982	65%	59%	20%	14%	5%
2018	40%	23%	20%	14%	12%
2021	45%	27%	25%	14%	15%
Mean among recipients (2020 Dollars)					
1982	\$21,700	\$11,500	\$12,400	\$14,600	\$52,500
2018	\$59,700	\$13,300	\$19,400	\$65,100	\$66,500
2021	\$84,300	\$12,300	\$20,400	\$94,3 00	\$105,900
Growth rates					
(1982 to 2018)					
All seniors	68%	-55%	58%	332%	188%
Among recipients	175%	16%	56%	346%	27%
Growth rates (1982 to 2021)					
All seniors	168%	-51%	107%	556%	485%
Among recipients	288%	7%	65%	546%	102%

 Table 6. Non-retirement investment income by type among senior households

Notes: Data are from SCF. Income is inflation-adjusted using the PCE price index. Mean calculation is limited to households with non-zero values. Rental income includes income from trusts and royalties.

As with the other sources, there are large differences by income level. Lower-income seniors saw little change in any investment income source from 2018 to 2021. They saw a statistically significant increase in interest income and a statistically significant decrease in rental income. The dollar changes, however, were minimal (\$60 in additional interest income and \$280 less in rental income). Upper-income households, on the other hand, experienced statistically significant increases in capital gains, dividends, and rental income.

Social Security Income

Average Social Security income grew by an inflation-adjusted 5.3 percent for all senior households from 2018 to 2021. As shown in table 7, the growth was broad-based, occurring for all types of households. The average real growth among recipient households was 4.6 percent. The estimate is slightly lower than reported by the Social Security Administration, which reported that real benefits of retirees grew by 6.4 percent; the differences are not significant.¹³

	Participation rate		Mean benefits among recipients			Mean benefit growth		
	1982	2018	2021	1982	2018	2021	2018	2021
Married couples	93%	92%	91%	\$17,000	\$31,000	\$33,000	89%	97%
Head	90%	89%	88%	\$11,400	\$20,100	\$21,100	76%	85%
Spouse	72%	75%	74%	\$5,600	\$11,800	\$12,300	112%	122%
Single female	91%	92%	94%	\$10,600	\$17,200	\$18,500	62%	75%
Single male	95%	88%	93%	\$11,700	\$18,700	\$20,100	60%	73%

Table 7. Social Security participation and benefits among senior households (2020 dollars)

Notes: Data are from SCF. Income is inflation-adjusted using the PCE price index. Mean benefit is limited to members with positive Social Security income.

The real growth in Social Security benefits is due to two factors. First, the program's annual cost-of-living adjustments increase current recipients' benefits at the rate of the CPI-W, which tends to grow faster than our inflation metric, the PCE price index. Our use of the PCE price index to deflate income rather than the CPI-W produced a 2.2 percent rise in real benefits from 2018 to 2021. Second, a new enrollee's initial benefits are based, in part, on the growth in economy-wide average wages over the enrollee's career. Thus, as new enrollees enroll in the program, mean real benefits tend to rise. From 2018 to 2021, for example, the initial real benefit for a typical new

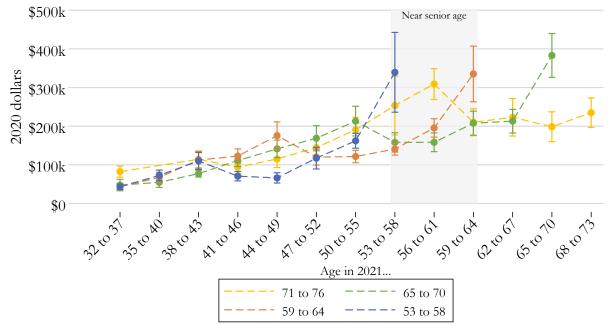
¹³ Administrative data are from table 5.A4 in SSA (2022).

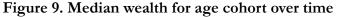
recipient who retired in 2021 at the full retirement age was 6.9 percent higher than that for a typical new recipient in 2018.¹⁴

As reported above, lower-income households experienced relatively larger increases in Social Security income than upper-income households. This is primarily due to changes in participation. In 2018, 93 percent of lower-income senior households received Social Security. This rose by 3 percentage points in 2021, a statistically significant increase. Upper-income households, meanwhile, saw their participation fall slightly over the same period (significant at the 10 percent level).

Near-Seniors and Prospects for Future Gains

Finally, our earlier work offered a speculative assessment regarding whether the trends we have observed were likely to continue in the future. We compared net wealth, employment, and wages for the cohort of households with heads nearing retirement (ages 59 to 64) to older cohorts at the same age. We found evidence suggesting that those nearing retirement had similar levels of wealth and employment to older cohorts at the same stage in their lifecycle and thus the senior income trends we identified were likely to continue in the near future.





Notes: Data are from SCE Bars reflect the 95 percent confidence interval. Assets are inflation-adjusted using the PCE price index.

The 2022 SCF provides additional support for this finding. First, as shown in figure 9, those nearing retirement experienced a large increase in net wealth. In 2022, median net wealth among

¹⁴ Data derived from the Social Security Trustees Report's supplemental single-year tables.

households with respondents age 59 to 64 was \$335,000—61 percent larger than the median net wealth of those that were age 59 to 64 in the 2016 survey (i.e., the cohort that was age 65 to 70 in the 2022 survey).¹⁵ This suggests those nearing retirement are likely to have more investment income than today's young seniors. Second, regarding employment, those nearing retirement had slightly lower employment relative to those nearing retirement in 2016, but significantly higher real wages.¹⁶ Thus, absent a significant economic shock, it appears likely that the next cohort of seniors will experience further income gains.

¹⁵ The choice of age group has little effect on our results. Median net wealth among households with respondents age 56 to 64 was \$350,000 in 2022, more than twice as much as the median for households of the same age in 2013 (i.e. the cohort age 65 to 73 in 2022.

¹⁶ Men nearing retirement have slightly higher employment rates (64 percent versus 62 percent) than the same age group in 2016, while women reported lower rates (50 percent compared to 55 percent).

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Appendix

This appendix provides updates to select figures and tables in Cogan and Heil (2022a), which were not updated in the main body of the paper.

	1982	2018	2021
Marital status			
Married	52%	49%	48%
Single female	39%	35%	35%
Single male	9%	16%	18%
Age			
65-69	35%	32%	31%
70-74	29%	26%	29%
75 and older	37%	41%	40%
Education			
High school or less	77%	37%	35%
Some college	12%	26%	26%
Bachelors or higher	11%	37%	39%

 Table A1. Demographic characteristics of senior householders

Notes: Data are from SCF. For consistency with the income analysis, ages reflect the imputed age of the respondent at the end of the previous year.

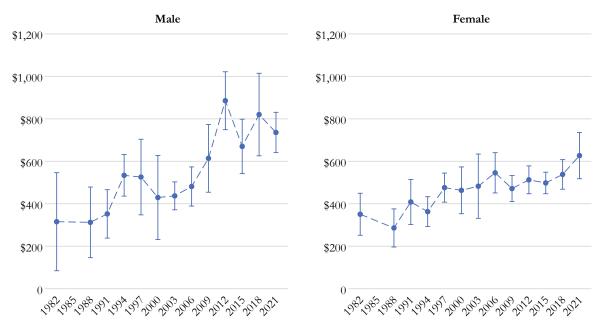


Figure A1. Median weekly wages by sex in senior households (2020 dollars)

Notes: Data are from SCF. Wages are inflation-adjusted using the PCE price index. Data includes household head and spouse (if present).

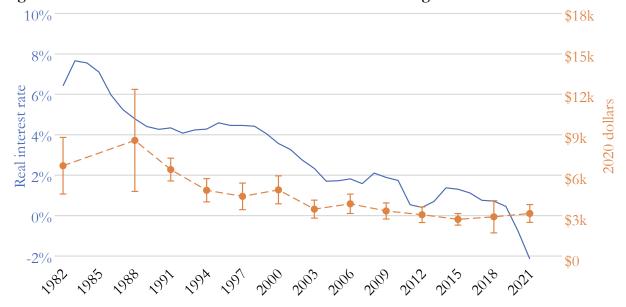


Figure A2. Real interest rates and mean interest income among seniors

Notes: Income data are from SCF. Interest income is inflation-adjusted using the PCE price index and includes only income from assets held outside of retirement plans. The real interest rate is equal to the three-year rolling average (centered on the middle year) of the average nominal interest rate of 10-year treasury bonds minus the annual growth in the PCE price index.