The Peak Boomers Impact Study

A Majority of Peak Boomers Are Not Financially Prepared for Retirement and Their Retirements Will Have Large Effects on the U.S. Economy

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April 2024

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A Study Commissioned by:

RETIREMENT INCOME INSTITUTE | Alliance for Lifetime Income

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Executive Summary

From 2024 to 2030, the largest and final cohort of baby boomers—30.4 million "peak boomers" in 2022, born from 1959 to 1964—will turn age 65. This study examines how prepared they are to retire and the impact of their retirements on the American economy.

- The peak boomers are diverse: 52% are women and 48% men; 68% are white, 12% Black, 13% Hispanic, and 11% "Other;" and 32% have college or graduate degrees, 24% have some college or associate degrees, 36% graduated high school, and 9% have no diploma.
- Peak boomers' incomes skew high and low: 36% have incomes under $50,000, including 11% below $5,000; 23% have incomes of $50,000 to $100,000; and 41% have incomes of $100,000 or more, including 13% over $200,000.

Based on their assets, two-thirds of peak boomers will be financially challenged in retirement. There also are large disparities in their assets based on gender, race and ethnicity, and education.

- 52.5% of peak boomers have assets of $250,000 or less and will rely primarily on Social Security as a source of income in retirement.
- 14.6% of peak boomers have assets $500,000 or less and most will strain to meet their financial needs.
- Peak boomer men, whites, and those with college or graduate degrees are more likely to have savings in multiple types of retirement accounts and with larger balances than peak boomer women, Blacks and Hispanics, and those without college degrees.
- The peak boomers' median retirement savings are $225,000 and with large disparities: The median is $269,000 for men versus $185,000 for women; $299,000 for whites versus $123,000 for Hispanics and $49,000 for Blacks; $591,000 for college graduates versus $75,000 for high school graduates and $7,000 for those without high school diplomas.
- The form of retirement savings with the least disparities are defined benefit (DB) pensions held by 24% of peak boomers—just over 50% provided by private employers and just under 50% by state and local governments. However, the median benefit in 2022 was $25,450 for public DB pensions versus $17,640 for private ones. In addition, private DB pensions are more common for men and those without college degrees while the public DB plans are more common with women and college graduates.

Peak boomer women will struggle financially in retirement compared to peak boomer men.

- The gender disparity between the median retirement savings peak boomers—$269,000 for men versus $185,000 for women—includes their defined contribution (DC) plans: 48% of male peak boomers have such plans with accounts worth $99,000 versus 41% of women with DC plan assets of $60,000.

- The median Social Security benefit for retired peak boomers will be $28,400 for the men versus $21,400 for the women, a disparity of one-third.
- Equal shares of male and female boomers have annuities, but the average initial annual payout will be $15,700 for men versus $13,700 for women.
- By 2030, 48,400 peak boomers with few assets and very low incomes will qualify for SSI benefits, which now average $6,900 per year, and 69% will be women versus 31% men.

As retired peak boomers draw on Social Security and Medicare, their benefits will add $374 billion to entitlement spending by 2030.

- As peak boomers turn 65 from 2024 to 2030, their Social Security benefits will cost $614 billion from 2025 to 2030. But all seniors will age along with the peak boomers, and mortality among seniors will offset 61% of the costs: All federal spending for Social Security retirement benefits as the peak boomers turn 65 from 2025 to 2030 will increase by $237 billion, not $614 billion.
- All peak boomers will become eligible for Medicare from 2024 to 2030 and those costs from 2025 to 2030 will total $887 billion, including $264 billion in 2030. Mortality among all Medicare recipients will offset 58% of the costs for peak boomers: In 2030, Medicare spending will increase $110 billion or $154 billion less than the peak boomers' costs.

As peak boomers turn 65, the value of their financial assets may not be stable and secure due to the impact of market volatility on their retirement assets.

- We tracked the value in 2030 of peak boomers' financial assets starting with $224,700 in 2022, based on the real returns for stocks and bonds in the bull market of 2017 to 2023 and the real returns in the bear market of 1973 to 1979, with peak boomers also withdrawing 7.5% each year for living expenses.
- Under the bull market, peak boomers in 2030 would still have $224,200 in assets after withdrawing $128,800 for living expenses, while the bear market would leave them with $114,400 in assets after withdrawing $72,300.
- Such market volatility also could intensify existing disparities: Under the bear market, male peak boomers would have $119,400 in 2030 versus $82,200 for women; whites would have $132,800 versus $21,800 for Blacks and $52,800 for Hispanics; and college graduates would have $262,600 versus $33,500 for high school graduates and $3,100 for those without diplomas.
- Volatility in housing prices also could markedly affect the home equity of peak boomers who sell or use home equity loans. If prices parallel the bull housing market of 2015 to 2022, the peak boomers' median equity of $156,400 in 2022 would rise to $280,400 in 2030, while a bear market like 2005 to 2012 would reduce their home equity to $134,200.

The lack of financial stability for peak boomers may be compounded by funding uncertainties for Social Security and some DB plans, which could reduce some benefits.

- Current law requires that only dedicated taxes, notably payroll taxes, can be used to pay Social Security retirement benefits. Treasury securities in the Social Security Trust Fund,

purchased with past payroll tax revenues, will all be redeemed by 2033; and current law could dictate broad cuts in retirement benefits of approximately 20% starting in 2033.
- To avert deep cuts, Congress could allow the use of general revenues for benefits, likely financed through higher deficits.
- While private employer (DB) pensions, regulated by the Department of Labor, were fully funded in 2022, many state and local government DB pension plans have long-term funding ratios averaging only 76% since 2000. As peak boomers reach retirement age, the government sponsors of those DB pensions may have to cut benefits, raise employee contributions, and/or use more general revenues by cutting programs or raising taxes.

The peak boomers retiring by 2030 hold 10% of U.S. jobs today, and their retirements will raise business costs and affect GDP, productivity, and consumer spending in significant ways, even as other factors partially offset these effects.

- By 2030, the waves of peak boomer retirements in themselves could dampen GDP growth by 7.3% based on reductions of 6.5% in hours worked and 0.9% in productivity. The economy will continue to grow by an estimated 2.1% annually from 2024 to 2030 as younger workers replace the peak boomers and improve their own skills, businesses continue to invest, and productivity is expected to increase 8.5%.
- The 10.9 million peak boomers that plan to retire by 2030 include 1.6 million current employees in healthcare, 1.3 million in manufacturing, and 1 million in construction.
- If half of peak boomers now planning to retire later decide to stop working by 2030, retirement will rise to 14.8 million and include one-to-two million jobs in education, finance and insurance, retail, and professional, scientific, and technical services.
- While total employment will continue to grow as Gen Z young people and immigrants enter the labor force, filling peak boomers' open positions will also raise business costs.
- As peak boomers' retirements reduce their incomes and affect their spending choices, we estimate their consumer spending will fall 15% including 22% for transportation, 5% for housing, 7% for food, and 15% for entertainment. At the same time, total U.S. consumer spending will increase an estimated 2% annually.

While many peak boomers underestimate how soon they will retire, many also underestimate how long they will live, which can undermine how financially prepared they are to retire.

- This study focuses on the peak boomers planning to retire between 2024 and 2030, when those born between 1959 and 1964 will all reach ages 65. While many commentators assume that people retire between ages 62 and 65 or 67 and 70, based on when most people first collect Social Security retirement benefits, less than two-thirds of peak boomers plan to fully retire by 2030.
- Just over 20% of people born between 1959 and 1964 stopped working prior to 2022 and another 3% planned to retire in 2022 or 2023--predominantly older peak boomers who were ages 61 to 64 in 2022 and 2023.
- Another 40.6% plan to retire between 2024 and 2030, and 16.1% plan to stop working between 2031 and 2034 when the youngest peak boomers reach ages 67 to 70. Based on their plans, 64.0% of peak boomers will have retired or expect to retire by 2030 and 80.1%

by 2034. The remainder did not indicate that any plan to retire or are younger peak boomers working past age 70, including some who plan to work until at least 2039.

By underestimating how long they will live, many peak boomers may not recognize the value of the assured lifetime income streams provided by annuities.

- As Social Security replaces approximately 40% of an average retiree's pre-retirement income, and the other retirement resources of most peak boomers may not be enough to maintain their lifestyles, many economists are perplexed that more people don't purchase annuities.
- One factor is that people in their fifties and early sixties underestimate their likelihood of living until 75 by an average of 25 percentage points, while companies that sell annuities price them based on how long people are likely to survive. As a result, the prices of annuities seem excessive to potential customers who underestimate their likely lifespans.
- Adverse selection also plays a role: People with reasons to expect to live longer than average are more likely to purchase annuities. Hence, annuity providers price in the likelihood that a disproportionate share of customers will live longer than average.
- Providers also take account of the risks that bear markets will depress the value of the assets they hold to pay off the annuities. Federal Reserve economists estimate that adverse selection and risks of market volatility raise the average price of annuities by 16%.
- Other economists report that less than 40% of people use professionals to help prepare for retirement, and people who do not seek such advice are less likely to purchase annuities, especially as many have limited funds. Given all of these challenges, the pool of annuitants may be limited largely to people much more risk-averse than average.

Employers can increase the income streams that Americans can rely on in retirement by promoting annuities in their retirement plans.

- With bipartisan support, Congress enacted both the Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act) and the Securing a Strong Retirement Act of 2022 (SECURE 2.0), improving the retirement security environment by focusing on the importance of protected income in retirement. The Secure Act includes a provision that made it easier for employers to offer an annuity option in a defined-contribution plan, while Secure 2.0 increased the amount individuals can move into a qualified longevity annuity contract (QLAC).
- The American Council on Capital Formation has recommended a requirement that employer 401(k)s and other DC plans provide life annuities as a withdrawal option. They also have called for two-tier 401(k) plans with one tier for traditional investments and a second tier for life annuity policies, with larger tax incentives for investing in tier two, and for a refundable tax credit for moderate income households investing in annuities and/or exempting part of their annuity income from income tax.
- The challenge for policymakers is to encourage people to invest in ways that ensure a steady and adequate retirement income with the least economic distortions.

The Peak 65 Economic Impact Study:
A Majority of Peak Boomers Are Not Financially Prepared for Retirement
And the Effects of Their Retirements on the U.S. Economy.

Robert Shapiro and Luke Stuttgen[1]

I. Introduction and Summary of Findings

The largest cohort of Americans in history will reach age 65, the conventional age for retiring, over the years 2024 to 2030. They are the "peak boomers," the tail end of the Baby Boom born between 1959 and 1964, plus immigrants of the same ages. In 2022, they numbered 30.4 million people for an average of 4.34 million turning age 65 per year. Their demographics also are distinct, with larger shares of women, whites, and high school graduates than the overall U.S. population and smaller shares of Blacks, Hispanics, and people with college degrees.

The income disparities among peak boomers also are notable with a relatively small share of middle-income people compared to those with high incomes and those with low and moderate incomes. In 2022, when the peak boomers were ages 58 to 63, nearly 37 percent had incomes below $50,000, 41 percent had incomes over $100,000, and 23 percent had incomes of $50,000 to $100,000. Those disparities are also accentuated by gender, race and ethnicity, and education. For example, 25 percent of Black peak boomers and 31 percent of Hispanic peak boomers had incomes below $25,000 versus less than 15 percent of white peak boomers, as did 30 percent of those with high school diplomas or less compared to 15 percent of college graduates.

Peak Boomers' Economic Prospects in Retirement

The peak boomers' income disparities assume greater importance as they prepare to retire. Based on their savings, a majority will struggle to maintain their lifestyles; and here, too, there are large disparities based on gender, race and ethnicity, and education in nearly every type of retirement asset. Peak boomers had median retirement assets of $225,000 in 2022, but female peak boomers had $40,000 less than the median and male peak boomers had $45,000 more. White peak boomers had median retirement assets of $299,000 compared to $49,000 for Black peak boomers and $123,000 for the Hispanics. Differences based on education are larger with median assets of $591,000 for the college graduates versus $75,000 for high school graduates.

Given these disparities in their financial assets, 35 percent of peak boomers will depend on Social Security for at least 90 percent of their retirement income at age 70 and 58 percent will depend on those checks for at least 50 percent of their income. And the disparities in their benefits also will be significant. Male peak boomers can expect average annual initial benefits of $28,400, 33 percent higher than the average for female peak boomers. Similarly, the median Social Security benefits of $26,000 for white peak boomers are 8 percent more than those for Black peak boomers and 37 percent more than their Hispanic counterparts; and the $26,000 median for the college graduates is 14 percent more than the high school graduates. Differences

[1] We gratefully acknowledge the support for our research from the Alliance for Lifetime Income. The analysis and conclusions are solely those of the authors.

in life expectancy also translate into disparities in how many years peak boomers will collect the benefits. At age 65, life expectancy for white women is 20.5 years versus 16.2 years for Black men, for example, and 21 years for women with graduate degrees versus 12.1 years for men without high school diplomas.

The poorest peak boomers with little if any Social Security benefits and few financial assets will also qualify for Supplemental Security Income (SSI) when they turn age 65 and collect benefits that currently average $575 per month or $6,895 annually. Given SSI's very strict eligibility requirements, few peak boomers will qualify. By 2030, when the last of the peak boomers turns 65, we estimate that 48,400 peak boomers will receive SSI payments based only on their age and income again with large disparities based on income: Women will account for 69 percent of peak boomer SSI recipients; more than 50 percent of the peak boomers receiving SSI will be Black and Hispanic, and 48 percent will lack high school diplomas.

We will examine the peak boomers' diverse forms of retirement savings. The most common are defined contribution (DC) pensions such as 401(k)s, and they also evidence large disparities. While 48 percent of peak boomer men are covered by DC plans with median holdings of $99,400, only 41 percent of peak boomer women have them and with median holdings of $59,900. 48 percent of white peak boomers also have DC pension accounts with median holdings of $99,5000, versus 40 percent of Black peak boomers with median holdings of $45,700 and 36 percent of Hispanic peak boomers with median holdings of $27,500. The largest disparities, again, are those based on education: 55 percent of the college graduates have DC accounts with assets worth $117,500 compared to 40 percent of the high school graduates with assets of only $31,000 and 13 percent of those without high school diplomas with accounts worth $10,600.

About 24 percent of peak boomers have defined benefit (DB) plans that provide a preset stream of monthly income through their retirements and, notably, are unaffected by large market movements that impact the value of DC plans. Most retirees with DB pension plans worked for unionized private employers or state and local governments, and differences in coverage based on gender, race and ethnicity, and education are relatively modest. Significant disparities are apparent in the annual payments. Peak boomer men can expect to receive DB payments 20 percent higher than peak boomer women; white peak boomers can expect payments 18 percent higher than Black peak boomers, and the payments for those with graduate degrees will be 55 percent higher than those for peak boomers without high school diplomas.

Much like DB pensions and Social Security, personal annuities also are insulated from market changes and assure a preset monthly income in retirement. Only 8.2 percent of older boomers purchased personal annuities, and their average annual payments of $14,600 are about 50 percent less than the $21,545 average for DB pensions. While men and women purchase annuities at similar rates, and while there are various reasons for differences in annuity income, including the size of annuity value purchased, prevailing interest rates, and terms, etc., the men receive payments averaging 15 percent more than the women. Further, the share of white boomers with annuities is more than double that of Black boomers and 3.5 times the share of Hispanic boomers. While the disparity in annual payments between white and Black annuitants is less than 12 percent, the annuity income of the white annuitants is $15,100 compared to $4,500 for Black annuitants. Similarly, 11.5 percent of those with college degrees have annuities that will

pay out an average of $16,800 annually, compared to 5.4 percent of the high school graduates with annuities that provide annual payments averaging $9,500.

Home equity is another possible source of retirement income, and two-thirds of peak boomers owned homes with median equity of $156,000 in 2022. Disparities in homeownership rates and home equity levels are large. While about 75 percent of white peak boomers own homes with median equity of $180,600, only 46 percent of Black peak boomers are homeowners with median equity of $69,100, as are 52 percent of Hispanic peak boomers with median equity of $103,900. And 78 percent of peak boomers with college degrees are homeowners with median equity of $221,800 versus 63 percent of the high school graduates with equity of $122,400 and 40 percent of those without high school diplomas with equity of $54,900.

While these may be considerable sums, few retirees draw on their home equity. Less than 2 percent of seniors per year borrow funds based on home equity, and 82 percent plan to stay in their homes for the rest of their lives, based typically on memories tied to their homes and the desire to live close to long-term friends and family. Seniors who consider selling their home also face large costs, including paying off the mortgages for 41 percent of senior homeowners.

The Potential Effects of Market Volatility and Other Issues for Peak Boomers' Retirement Assets

Based on the data, a majority of peak boomers may find the income from pensions, Social Security, and other assets insufficient to support their pre-retirement lifestyles. In addition, the financial markets that determine the value of most assets can be very volatile, and retired seniors are more vulnerable to bear markets than working people. Once retired, the peak boomers will have little capacity to offset market losses by working harder, and since they depend on the assets for living expenses, they often cannot simply wait until the markets recover.

We examined the trajectory of the peak boomers' median assets under two scenarios based on recent market history. Starting with the peak boomers' median financial assets of $225,000 in 2022, we tracked the value of those assets from 2024 to 2030 if the real returns on stocks and bonds tracked the bear market of 1973 to 1979 versus the bull market from 2017 to 2023. We also assume that peak boomer retirees divided their assets fifty-fifty between stocks and bonds and cashed in 7.5 percent of their assets per year for living expenses.

Under the bull market conditions, stocks went up and bonds fell, but the peak boomer had retirement assets worth virtually the same in 2030 as in 2022 after withdrawing $125,800 for living expenses. Under the bear market, the peak boomers' stocks and bonds both declined sharply, and after withdrawing $72,300 over the six years for living expenses, they would be left with assets worth 51 percent less in 2030 than in 2024.

A strong bull market or serious bear market also increase the disparities in peak boomers' retirement assets. Under the two scenarios, the value of the median male peak boomer's assets would range from $199,400 to $268,200 in 2030, versus $82,200 to $184,600 for the female peak boomers. Similarly, the median assets of white peak boomers in 2030 would be worth either $132,800 or $298,100, versus $21,800 or $49,900 for Black peak boomers and $54,800 or $123,000 for Hispanic peak boomers. The comparable range for peak boomer college graduates would be $262,600 or $589,600, compared to $33,500 or $75,100 for high school graduates.

Home values also are subject to market volatility. Based on the Shiller Case Index of housing prices, the period from 2015 to 2022 was generally a bull market while the years from 2005 to 2012 were a bear market. Under the bull market conditions, the peak boomers' median home equity of $156,400 in 2022 would reach to $280,500 in 2030, while the bear market conditions would depress their median home equity to $134,200.

The security of peak boomers' promised retirement income from state and local government DB pension plans could also be uncertain: By standard measures, the assets of those plans overall are inadequate to ensure the promised benefits for those currently covered. In 2023, those plans had a combined funded ratio of 77.4 percent and a funding gap of $1.5 trillion, and their funded ratio since 2000 has averaged 72.7 percent. Ensuring these pensions may require raising employee contributions and the funding from general budgets.

By contrast, private DB pension plans were fully funded in 2022 and 2023, albeit following a decade of underfunding. The turnaround reflects in part the Department of Labor's regulation of the investments and operations of private DB pension plans—while state and local governments regulate their own plans. However, many private employers that once offered DB pension coverage reduced their term funding obligations by shifting to DC plans, transferring much of their funding risks and burdens to employees.

The Prospective Costs to Provide Social Security and Medicare to Retired Peak Boomers

As millions of peak boomers become eligible for Social Security benefits, and turn age 65 for Medicare coverage, the sheer numbers of peak boomers will produce pressures on their funding. However, those pressures will be less severe than many expect. All seniors will age with the peak boomers, so as peak boomers turn 65 and older from 2024 to 2030, the mortality of older seniors along with their own will offset much of the additional costs to cover their benefits.

To estimate the costs, we assume here that peak boomers will claim Social Security benefits when they turn 65 from 2025 to 2030. As 4.1 million peak boomers turn 65 in 2025, for example, 2.3 million seniors ages 65 and older are expected to die. The result is a net increase in the number of Social Security recipients ages 65 and older of 1.8 million rather than 4.1 million. The cost of the peak boomers' retirement benefits from 2025 to 2030 would range from $77.7 billion in 2025 to $136.5 billion in 2030 and total $613.6 billion over those years. Yet Social Security expects the net additional spending for retirement benefits will range from $34.2 billion in 2025 to $45.2 billion in 2030 and total of $237.4 billion. The result is that 61 percent of the costs to provide the peak boomers' retirement benefits from 2025 to 2030 will be offset by the mortality of millions of seniors over those years.

A similar development will shape the peak boomers' impact of Medicare spending, with the additional feature that per-person Medicare costs increase sharply as seniors grow older. In 2020, for example, Medicare costs averaged $10,030 for 70-year-olds, $14,239 for 80-year-olds, and $19,548 for 90-year-olds. In 2025, when the first group of 65-year-old peak boomers enroll in Medicare, they will cost an average of $9,765 each; by 2030, when the last group of peak boomers turn age 65, the average cost will be $11,119. In 2030, when all peak boomers are 65 or older, they will comprise nearly 37 percent of Medicare recipients. But their total Medicare costs

of $296 billion will account for 16 percent of Medicare spending. Moreover, all Medicare spending will increase $110 billion in 2030, so the mortality of seniors, most with higher Medicare costs per-person, will offset 63 percent of the peak boomers' costs.

The Impact of Peak Boomers' Retirements on the Economy

Peak boomers currently comprise more than 10 percent of the U.S. workforce, and their retirements from 2025 to 2030 will affect labor markets, GDP, and consumer spending. Based on their current plans for retirement, 10.9 million peak boomer employees will have to be replaced, including 1.6 million workers in healthcare and social assistance, 1.3 million in manufacturing, and 1 million in construction. The business costs will be considerable: Replacing an employee will cost on average the equivalent of half to two-thirds of the annual salary. Moreover, studies show that many people retire sooner than planned. If half of the peak boomers who expect to retire later than 2030 stop working earlier, employers will have to replace 10.5 percent of their current workforce force in construction, 10.6 percent in government and active-duty military, 11.8 percent in manufacturing, 12.2 percent in wholesale trade, and 16.7 percent in utilities.

However, as everyone will age along with the peak boomers, people from younger generations will fill the positions vacated by them, and the total labor force will continue to grow. The Labor Department estimates that the American workforce will increase from 164.3 million in 2022 to 170.2 million in 2032 despite the millions of peak boomer retirements.

The retirement of so many peak boomers with lifetimes of experience by itself will also reduce overall productivity by 0.9 percent and dampen growth by 7.3 percent. Again, the adverse effects on productivity will be more than offset over the same period by the impact of continuing technological progress, increases in capital investment, and the experience most workers gain year by year. And those underlying productivity gains along with the net increases in employment will sustain GDP growth, which CBO estimates will average 2.1 percent per-year from 2025 to 2030 despite the waves of peak boomer retirements.

The peak boomers' retirements will also affect consumer spending. When people retire, their incomes usually decline; and based on data from the Consumer Expenditure Survey (CES), retirees spend about 25 percent less than the national average. Using historical spending trends by age from the CES, we also estimate spending peak boomers' spending in 2032 compared to 2022 in five major areas that account for about half of all spending—transportation, housing, food, apparel, and entertainment. We estimate that retired peak boomers will spend $105.5 billion less in 2032 than in 2022, adjusted for expected inflation. The largest spending reductions will occur in apparel (down 35 percent), transportation (down 22 percent) and entertainment (down 15 percent), followed by housing (down 5 percent) and food (down 6 percent).

Applying this analysis to total projected spending, we estimate that the effects of retirement on the peak boomers will reduce their total spending by $204 billion or 15 percent from 2022 to 2032. At the same time, as younger generations also age, they will earn more and consequently spend more. As a result, CBO estimates that real consumer spending will continue to increase at an average annual rate of 2 percent from 2022 to 2032, again despite the reduced spending of retired peak boomers.

II. Who Are the Peak Boomers?

By sheer numbers, the Baby Boomers born between 1946 and 1964 have in many ways dominated American culture, the workforce, and politics. Just over 76 million babies were born over those 19 years compared to 47 million in the Silent Generation born from 1928 to 1945, the 55 million members of Generation X born from 1965 to 1980, and 62 million Millennials born from 1981 to 1996.[2] On an annual basis, the Baby Boom averaged 4 million births compared to 2.6 million for the Silent Generation, 3.4 million for Gen X, and 3.9 million for Millennials. While many boomers have died, immigrants to the United States born between 1946 and 1984 offset those deaths for many years. The Census Bureau estimates that in 2015, boomers then aged 51 to 69 numbered nearly 75 million or 25 percent of the U.S. population, and in 2030 at ages 65 to 83, the 60 million surviving boomers will still comprise 18 percent of all Americans.[3]

The peak boomers are the 4.1 million people who on average annually will turn age 65 each year from 2024 to 2030. As a result, the Social Security Administration has forecast that 28.6 million people in the United States will turn retirement age of 65 over those years.[4] The most recent data on their demographics show that the 30.4 million peak boomers in 2022 included larger shares of women and whites and smaller shares of Blacks, Hispanics, and Others than the overall U.S. population. (Table II- below) Peak boomers also are less educated than overall adults with larger shares of high school graduates and smaller shares of college graduates and people with graduate degrees.[5]

Table II-1: The Demographics of the Peak Boomer Cohort in 2022[6]

	Peak Boomers		U.S. Population
All Peak Boomers	30,400,000	100.0%	9.9%
Gender			
Male	14,600,000	47.9%	49.6%
Female	15,800,000	52.1%	50.4%
Race and Ethnicity			
White	19,300,000	63.8%	57.8%
Black	3,700,000	12.2%	12.1%
Hispanic	4,000,000	13.3%	18.7%
Other	3,200,000	10.6%	11.4%
Education			
No HS Diploma	2,700,000	9.0%	8.9%
HS Graduate	10,700,000	35.5%	27.9%
Some College or Assoc degree	7,100,000	23.6%	25.4%
College Degree	6,100,000	20.3%	23.5%
Graduate Degree	3,500,000	11.7%	14.4%

[2] Fry (2020).
[3] Colby and Ortman (2014).
[4] Fichtner (2024).
[5] Census Bureau (2022).
[6] Author's calculation based on 2022 data from the University of Michigan, Health and Retirement Study (2024).

The Incomes of Peak Boomers as They Near Retirement

There are substantial disparities in peak boomers' incomes based on their gender, race and ethnicity, and education, an important factor in their lifestyles and planning for retirement.

Overall, 37 percent of peak boomers had incomes below $50,000 in 2022, including about 16 percent with incomes below $5,000 (Table II-2 below). At that minimal income of less than $5,000 and low levels of $5,000 to $25,000, there is no significant difference between male and female peak boomers, but female peak boomers are 60 percent more likely to earn moderate incomes of $25,000 to $49,999 than their male counterparts. The racial and ethnic differences among peak boomers are especially stark at minimal and low-income levels, with Black and Hispanic peak boomers about twice as likely as their white counterparts to earn less than $5,000 or $5,000 to $25,000. On addition, Black peak boomers are about 50 percent more likely than whites to have moderate incomes of $25,000 to $49,999.

The differences based on education also are stark. Almost 60 percent of peak boomers without high school diplomas and just over 30 percent of high school graduates have minimal or low incomes, compared to 7 percent and 9 percent of peak boomer college graduates and those with graduate degrees. And peak boomers with high school education are more than three times as likely to have moderate incomes as those with college or graduate degrees, a disparity that rises to five to six times between peak boomers without high school diplomas and those with college or graduate degrees.

Table II-2: Incomes of Peak Boomers by Gender, Race and Ethnicity, and Education in 2022, $2024[7]

	0 to $4,999	$5K to $24,999	$25K to $49,999	$50K to $99,999	$100K to $199,999	$200K +
All Peak Boomers	11.3%	12.1%	13.1%	22.9%	28.0%	12.7%
Gender						
Male	11.1%	12.3%	9.8%	22.2%	29.9%	14.7%
Female	11.4%	12.0%	16.1%	23.6%	26.1%	10.8%
Race and Ethnicity						
White	7.2%	7.2%	10.7%	23.9%	35.8%	15.2%
Black	15.7%	9.3%	15.9%	25.5%	24.2%	9.4%
Hispanic	19.2%	11.8%	12.1%	27.6%	20.6%	8.6%
Other	11.5%	13.1%	18.0%	16.4%	19.9%	21.2%
Education						
No HS Diploma	20.4%	37.9%	26.1%	13.7%	0.9%	1.0%
HS Graduate	15.3%	14.9%	18.2%	28.4%	20.4%	2.8%
Some College or Assoc Degree	11.6%	11.1%	12.0%	26.9%	29.7%	8.7%
College Degree	4.4%	4.3%	5.7%	20.2%	38.9%	26.4%
Graduate Degree	4.5%	2.2%	4.6%	11.4%	44.2%	33.0%

[7] Author's calculation based on 2022 data from the Federal Reserve Survey of Household Economics and Decision Making. Board of Governors of the Federal Reserve System (2023).

At middle income levels of $50,000 to $99,999, these disparities recede, with little difference between the incomes of male and female peak boomers or between the incomes of white and Black or Hispanic peak boomers as they close in on retirement age. Based on education however, peak boomers without high school diplomas and peak boomers with college or graduate degrees are much less likely to have middle incomes than those with high school diplomas or some college or associate degrees, because 84 percent of peak boomers who did not graduate from high school have incomes below $50,000 and 65 percent of college graduates and 77 percent of those with graduate degrees have incomes above $100,000.

As this suggests, the inequalities across peak boomers are substantial at high income levels. Compared to the peak boomer college graduates and peak boomers with graduate degrees, less than 2 percent of peak boomers without a high school education, 23 percent of high school graduates, and 38 percent of those with some college or an associate degree earned $100,000 or more in 2022. Similarly, 51 percent of white peak boomers earned more than $100,000 as they neared retirement, compared to 34 percent of Black and 29 percent of Hispanic peak boomers. Other peak boomers did better with 41 percent with incomes above $100,000, many of them Asian peak boomers. Income inequality based on gender also is significant across high income peak boomers, with 45 percent of such men high incomes compared to 37 percent of women.

When Peak Boomers Plan to Retire

Many commentators of the aging of the baby boomers assume that they will retire between ages 62 and 65 or 67 and 70, based on the ages when most people first collect Social Security retirement benefits. This convention is not consistent with the facts because substantial numbers of seniors continue to work beyond ages 67 or 70. This analysis focuses on peak boomers retiring between 2024 and 2030, when those born between 1959 and 1964 will reach ages 65 – when the oldest peak boomers will reach ages 65 to 71 and the youngest peak boomers will be ages 60 to 66. And the data show that less than two-thirds of peak boomers plan to fully retire by 2030 (Table II-3 below).

Our analysis found that just over 20 percent of people born between 1959 and 1964 stopped working prior to the 2022 survey and another 3 percent planned to retire in 2022 or 2023. These were predominantly older peak boomers, as those born in 1959 or 1960 were ages 61 to 64 in 2022 and 2023, compared to ages 57 to 60 for the youngest peak boomers born in 1963 or 1964. Another 40.6 percent of peak boomers plan to retire between 2024 and 2030, and another 16.1 percent will retire between 2031 and 2034 when the youngest peak boomers reach ages 67 to 70. Based on the stated plans of peak boomers, 64.0 percent will have retired or expect to retire by 2030 and 80.1 percent by 2034. The remainder either did not indicate that they had plans to retire or are younger peak boomers working beyond age 70 including some who plan to keep working until at least 2039, when the youngest peak boomer will be 75 years old.

Table II-3: Years When Working Peak Boomers Retired or Plan to Retire Completely, 2022 to 2039[8]

Year	Ages of Peak Boomers	Planning to Retire	Total Retired
2022	58 to 63	1.1%	21.5%
2023	59 to 64	1.8%	23.3%
2024	60 to 65	4.4%	27.7%
2025	61 to 66	4.9%	32.7%
2026	62 to 67	5.2%	37.8%
2027	63 to 68	6.4%	44.3%
2028	64 to 69	5.9%	50.2%
2029	65 to 70	7.1%	57.3%
2030	66 to 71	6.7%	64.0%
2031	67 to 72	5.0%	68.9%
2032	68 to 73	4.4%	73.4%
2033	69 to 74	3.5%	76.9%
2034	70 to 75	3.2%	80.1%
2035	71 to 76	3.3%	83.3%
2036	72 to 77	0.5%	83.9%
2037	73 to 78	1.5%	85.4%
2038	74 to 79	0.9%	86.3%
2039	75 to 80	0.5%	86.8%

These findings inform many aspects of this study. For example, while our estimates of retirement resources include all peak boomers, the estimates of the impact of peak boomer retirements on the labor force, GDP, productivity, and consumer spending are based largely on those who are currently working and plan to retire by 2030.

III. The Peak Boomers' Financial Assets as They Prepare to Retire

Differences in the peak boomers' ownership of financial resources for retirement follow from the differences in incomes. We found that in 2022, the retirement resources of the peak boomers included retirement savings and other financial assets with a median value of nearly $225,000, plus home equity with a median value of about $156,000 and an expected stream of Social Security benefits that will average about $22,350 annually (Table III-1 below).

The peak boomers' patterns of ownership of retirement assets also show large disparities based on race and ethnicity and on education, in some cases greater than the disparities in incomes. Across the various types of financial resources, white peak boomers are more likely than Black and Hispanic peak boomers to own the assets in every category except defined benefit pensions, and in most cases the differences are large. Peak boomers with college or graduate degrees also are more likely than those without a Bachelors' degree to have assets from all six categories, and the differences in most cases also are large. Finally, male peak boomers are more

[8] Authors' calculations based on data from the 2022 University of Michigan Health and Retirement Study (2022).

likely than their female counterparts to own assets in every category, although here the disparities are more modest.

Table III-1: How Prepared Peak Boomers Are for Retirement: Median Retirement Assets, Home Equity, and Expected Annual Social Security Benefits, By Gender, Race and Ethnicity, and Education, 2022[9]

	Median Retirement Saving	Median Home Equity	Expected Annual Social Security
All Peak Boomers	$224,714	$156,388	$22,342
Gender			
Male	$268,745	$160,496	$25,293
Female	$185,086	$152,929	$19,207
Race and Ethnicity			
White	$298,927	$180,577	$22,782
Black	$49,047	$69,075	$21,525
Hispanic	$123,337	$103,902	$17,150
Other	$231,527	$194,806	$25,208
Education			
No HS Diploma	$6,992	$54,847	$14,187
HS Graduate	$75,300	$122,429	$19,695
Some College or Assoc Degree	$210,506	$119,180	$21,902
College Degree	$591,158	$221,813	$25,947
Graduate Degree	$661,449	$267,202	$25,445

Peak boomer men have substantially higher retirement savings and moderately higher home equity and expected Social Security benefits than peak boomer women. Greater differences are apparent based on race and ethnicity and education: Black and Hispanic peak boomers have, respectively, retirement savings equivalent to 16 percent and 41 percent that of white peak boomers, and the home equity of Black and Hispanic peak boomers is, respectively, 38 percent and 58 percent that of their white counterparts. Social Security benefits are based in part on a progressive formula so the disparities in expected benefits based on race and ethnicity are relatively modest.

The largest disparities in retirement resources are based on education. The median retirement savings of peak boomers with college degrees and those with graduate degrees are more than eight times those of the high school graduates and nearly 90 times those of peak boomers without high school diplomas. The home equity of those more highly educated peak boomers is four times that of peak boomers without high school diplomas and twice that of the high school graduates. Their differences in expected social security payments are smaller, although the benefits for the college graduates are 32 percent higher than those for the high

[9] Authors' calculations based on data from the 2022 Federal Reserve Survey of Household Economics and Decision Making, Board of Governors of the Federal Reserve System (2023) and the 2022 University of Michigan Health and Retirement Study (2024).

school graduates and 83 percent higher than those for peak boomers without high school degrees.

There also are many differences in how peak boomers' financial resources for retirement are allocated across different forms of investment. These resources include assets that can generate income—defined contribution (DC) pension arrangements including 401Ks and Keoghs, participation in defined benefit (DB) pension plans, and ownership of IRA accounts, savings accounts, passive investments such as stocks, bonds or other financial instruments outside retirement accounts, personal annuities, and ownership stakes in businesses or real estate that can produce income. Table III-2 below shows the share of peak boomers with assets in each category. The ownership rates of all peak boomers and ownership by gender, race and ethnicity, and education do not total 100 percent, because many own two or more types of these retirement assets.[10] As a result, the gaps between peak boomers with or without retirement savings are greater than the broad ownership data suggest.

Table III-2: Peak Boomer Ownership of Personal Financial Assets as Resources for Retirement, 2022[11]

	DC plans	DB Pensions	IRAs	Saving Accts	Passive	Other	Annuities
All Peak Boomers	44.5%	24.4%	30.5%	39.3%	8.8%	12.9%	8.2%
Gender							
Male	47.8%	26.6%	33.1%	43.6%	9.7%	14.7%	8.2%
Female	41.3%	22.3%	28.0%	35.2%	7.9%	11.2%	8.3%
Race and Ethnicity							
White	47.8%	24.0%	35.6%	44.0%	9.8%	14.5%	9.7%
Black	40.0%	26.3%	16.3%	27.4%	8.6%	8.8%	4.1%
Hispanic	36.1%	24.5%	15.9%	25.3%	3.6%	9.2%	2.8%
Other	38.2%	23.9%	35.0%	42.4%	9.1%	11.7%	4.2%
Education							
No HS Diploma	13.1%	4.6%	2.5%	7.4%	3.6%	2.8%	1.3%
HS Graduate	39.6%	21.9%	21.1%	31.2%	5.9%	7.0%	5.4%
Some College or Associate Deg	46.4%	25.1%	32.5%	42.4%	9.1%	15.0%	7.8%
College Degree	55.2%	27.1%	47.7%	53.6%	14.5%	19.6%	11.5%
Graduate Degree	57.2%	36.4%	44.2%	53.4%	11.0%	20.3%	13.7%

[10] For example, while our data show that 44.5 percent of peak boomers are covered by DC plans and 24.4 percent by DB plans, a recent analysis of all working-age adults found that 52 percent participate in at least one of the two pension plans. Employee Benefit Research Institute (2023). Studies also have found that about two-thirds of adults with IRAs also have DC pension coverage, and one-third of adults with DC pension plans also have IRA accounts. with IRAs also have DC pension accounts, and about one-third of those with DC plans also have IRAs. Hoffman, Klee, and Sulivan (2022); and Employee Benefit Research Institute (2023).

[11] Authors' calculations based on data from the 2022 Federal Reserve Survey of Household Economics and Decision Making (Board of Governors of the Federal Reserve System, 2023) and the 2022 Census Bureau Survey of Income and Program Participation (Census Bureau, 2023-E). Annuities estimates are based on the annuity income data of retired pre-peak boomers from the 2022 University of Michigan Health and Retirement Study (2024).

The disparities in peak boomers' ownership of each type of retirement asset based on gender, race and ethnicity and education also are substantial. For example, among the 44.5 percent of peak boomers with 401Ks or related DC pension accounts, those with college or graduate degrees are 40 percent more likely than high school graduates to have such accounts and four times more likely than peak boomers without high school diplomas. Peak boomers' 44.5 percent participation rate in DC pension plans is also significantly lower than the 56 percent rate for all private sector employees and the 49 percent rate that also includes government workers.[12]

Among peak boomers with employer-provided 401(k) and other DC plans, the median value of their assets in those plans was $74,500 in 2022. (Table III-3 below) There are also disparities in those values of nearly $40,000 between those male and female peak boomers, and differences of $72,000 between white and Hispanic peak boomers, and $54,000 between white and Black peak boomers. The disparities are greater based on education, including disparities of $58,000 between college graduates and those with some college or associate degrees and $87,000 between college graduates and high school graduates. The disparities in the median value of assets held in peak boomers' IRA-type accounts follow similar patterns, including $26,350 between male and female peak boomer with IRAs, and more than $43,000 between white and Hispanic peak boomers and more than $23,000 between white and Black peak boomers. Similarly, the median value of the IRAs of peak boomer college graduates was $47,200 more than the IRAs of those with some college or associate degrees and $67,600 more than the IRAs of peak boomer high school graduates.

Table III-3: Median Value of Peak Boomers' 401(k) and Other Defined Contribution Plans and IRA-Type Accounts, 2022[13]

	DC plans	IRA Accounts
All Peak Boomers	$74,500	$64,750
Gender		
Male	$99,000	$79,750
Female	$59,850	$53,400
Race and Ethnicity		
White	$99,500	$70,650
Black	$45,650	$47,500
Hispanic	$27,500	$27,500
Other	$72,500	$53,500
Education		
No HS Diploma	$10,550	$13,000
HS Graduate	$30,950	$30,050
Some College/Assoc Degree	$59,500	$50,500
College Degree	$117,500	$97,650
Graduate Degree	$185,500	$98,500

[12] Bureau of Labor Statistics (2023).

[13] Authors' calculations based on data from the 2022 Census Bureau Survey of Income and Program Participation, Census Bureau (2023-E).

Many employers shifted from DB pensions to DC plans in the 1980s and early 1990s, and today less than 25 percent of pre-peak boomers have DB coverage compared to nearly 45 percent with DC plans (Table III-2 above). (We rely here on data from pre-peak boomers for DB pension income because most peak boomers with DB pensions have not retired.) DB plans are currently offered mainly by state and local governments and employers in highly unionized industries. DB plan participation rates and average benefits also vary significantly based on gender and education and between plans offered by private employers and those offered by governments (Table III-4 below). While pre-peak boomers with DB pensions are divided fairly evenly between private employer and government plans, the men are much more likely to have private DB coverage while the women are substantially more likely to be covered by the government plans. Notably, peak boomer coverage by private employer plans declines with education while coverage by government plans increases with education. The disparities in coverage between the private and public DB plans based on race and ethnicity are modest.

Table III-4: Pre-Peak Boomers' Participation in Employer versus Government Defined Benefit Plans, And the Average Annual Payments to Retired Pre-Peak Boomers and Their Present Value to 2039, 2022[14]

	All Pre-Peak Boomers with DB Pensions			Retired Pre-Peak Boomers with DB Pensions			
				Ave Annual Benefit		Present Value to 2039	
	Private	Public	Both	Private	Public	Private	Public
All Peak Boomers	50.2%	46.1%	1.1%	$17,640	$25,450	$129,100	$186,400
Gender							
Male	58.8%	36.4%	1.4%	$19,830	$27,100	$145,200	$198,400
Female	42.3%	55.0%	0.8%	$14,820	$24,440	$108,500	$178,900
Race and Ethnicity							
White	50.2%	45.6%	1.2%	$18,000	$25,910	$131,800	$189,700
Black	53.0%	45.3%	0.9%	$15,250	$21,060	$111,600	$154,200
Hispanic	49.8%	46.8%	0	$15,880	$24,060	$116,300	$176,200
Other	44.3%	55.7%	0	$18,740	$27,710	$137,200	$202,900
Education							
No HS Diploma	67.4%	27.7%	0	$13,510	$20,770	$98,900	$152,100
HS Graduate	65.1%	31.5%	1.0%	$16,220	$21,120	$118,800	$154,600
Some College or Assoc Deg	57.1%	39.8%	0.9%	$15,630	$21,930	$114,400	$160,600
College Degree	44.7%	51.4%	1.3%	$20,350	$25,540	$149,000	$187,000
Graduate Degree	28.8%	66.6%	1.3%	$22,780	$30,500	$166,800	$232,300

Data on the average benefits provided by DB pensions cover pre-peak boomers who retired before 2023. Based on our review of historical trends, the values in Table III-4 are likely upper estimates of the values for peak boomers The disparities in average annual benefits and the present value of expected benefits through 2039—the cumulative value of annual benefits

[14] Authors' calculations based on data from the 2022 Census Bureau Survey of Income and Program Participation, Census Bureau (2023-E) and the 2022 Federal Reserve Survey of Household Economics and Decision Making (Board of Governors of the Federal Reserve System, 2023).

through 2039 in today's dollars—follow the familiar pattern: Among retired pre-peak boomers, men receive larger benefits than women, whites receive larger benefits than people of color and Others (non-Hispanic), and benefits increase steadily with education (Table III-4 above). The data also show that the average benefits and their present value through 2039 are consistently higher under government DB pensions than those provided by private employers.

As noted earlier, the median financial assets of all peak boomers are nearly $225,000, with very large disparities based on gender, race and ethnicity, and education (Table III-5 below). The median assets of male peak boomers exceed those of females by $84,000, the financial assets of white peak boomers are $250,000 greater than those of Black peak boomers and $175,000 greater than those of Hispanic peak boomers. And the median financial assets of peak boomers with graduate degrees, on average, exceed by $451,000 those owned by peak boomers with some college or associate degrees and exceed those owned by high school graduates by $586,000. On average, Black and Hispanic peak boomers appear to lack the financial resources to maintain their lifestyles after retiring, as do peak boomers who did not attend college.

Table III-5: Peak Boomers' Total Median Financial Assets for Retirement and Distribution by Value, By Gender, Race and Ethnicity, and Education, 2022[15]

	Median Financial Assets	0 to $50K	$50K to $100K	$100 K to $250 K	$250K to $500K	$500K to $1 M.	Over $1 M.
All Peak Boomers	$224,714	28.8%	8.6%	15.1%	14.6%	16.8%	16.1%
Gender							
Male	$268,745	24.6%	8.5%	15.8%	14.6%	20.0%	16.5%
Female	$185,086	33.1%	8.7%	14.4%	14.6%	13.5%	15.6%
Race and Ethnicity							
White	$298,927	23.6%	8.3%	15.2%	15.1%	18.8%	19.1%
Black	$49,047	50.3%	12.1%	10.7%	12.9%	11.4%	2.5%
Hispanic	$123,337	38.6%	8.6%	18.3%	15.8%	10.3%	8.4%
Other	$231,527	29.7%	6.3%	15.9%	10.7%	16.7%	20.6%
Education							
No HS Diploma	$6,992	89.4%	1.8%	6.1%	2.7%	0.0%	0.0%
HS Graduate	$75,300	45.0%	9.9%	17.7%	12.7%	11.8%	2.8%
Some College or Assoc Deg	$210,506	26.9%	10.2%	17.6%	15.7%	16.5%	13.1%
College Degree	$591,158	7.0%	6.9%	14.9%	17.3%	21.6%	32.3%
Graduate Degree	$661,449	6.9%	7.7%	9.8%	17.1%	26.3%	32.2%

The distribution of financial assets by value also evidences large disparities. All told, about 29 percent of peak boomers have less than $50,000 in financial resources for their retirements, including substantial shares of every demographic group (Table III-5 above). Some 25 percent of

[15] Authors' calculations based on data from the 2022 Federal Reserve Survey of Household Economics and Decision Making (Board of Governors of the Federal Reserve System, 2023). The analysis excludes those who did not respond or said they did not know the value of their financial assets.

the men and 33 percent of the women have less than $50,000 in retirement savings as do 50 percent of Black peak boomers, 39 percent of Hispanic peak boomers, and 24 percent of white peak boomers. Similarly, 89 percent of peak boomers without high school diplomas own retirement assets worth less than $50,000 along with 45 percent of high school graduates and 27 percent of peak boomers with some college or associate degrees.

At the other end of the distribution, 33 percent of all peak boomers have financial assets exceeding $500,000 and again with very large demographic disparities. While they include 37 percent of male peak boomers, 29 percent of the women, and 38 percent of white peak boomers, only 14 percent of Black peak boomers and 19 percent of Hispanic peak boomers hold such assets. Similarly, 58 percent of peak boomers with graduate degrees and 54 percent of those with college degrees have financial resources exceeding $500,000, including 32 percent of each group with more than $1 million in those resources. By contrast, the number of peak boomers without high school diplomas with assets totaling $500,000 or more is negligible, and among peak boomers who graduated high school less than 15 percent have more than $500,000 in retirement assets.

IV: Peak Boomers' Retirement Benefits from Social Security

Virtually all peak boomers have resources apart from their financial assets that can help support them in retirement, most notably Social Security benefits. In 2023, 50.1 million older Americans received $99.5 billion in Social Security benefits based solely on their age, benefits that averaged $1,905 monthly or $22,860 annually.[16] The Social Security Administration reports that its benefits comprised 50 percent or more of the incomes of 40 percent of beneficiaries in 2023 and 90 percent or more of the income for 14 percent of beneficiaries.[17] A combination of two features also make Social Security benefits unique: Nearly 90 percent of people ages 65 and over receive them, and their value is guaranteed for their lifetimes.

The payroll tax payments that entitle most Americans to a government-administered and guaranteed defined benefit pension throughout their retirement act as a form of savings.[18] The size of the benefits depends on a person's wage and salary income subject to payroll taxes: A new retiree's initial monthly benefit in 2023 was based on his or her average monthly labor income (AMI) for up to 35 years, adjusted for inflation based on overall wage growth, and then determined by the sum of 90 percent of the first $1,174 in AMI, 32 percent of the next tranche of AMI up to $7,078, and 15 percent of AMI over $7,078 up to a ceiling of $13,3350. The benefit for new beneficiaries in 2023 was therefore equal to 90 percent of the first $14,088 in average taxable labor earnings, 32 percent of average earnings from $14,089 to $84,936, and 15 percent of average earnings from $84,937 to $160,200 in 2023. As a result, Social Security replaces a larger share of the average labor income of lower earners while higher earners receive larger benefits.

CBO estimates that the initial benefits for current peak boomers and those one-to-five years younger—people born in the 1960s—who worked 35 years and retired at 65, would replace

[16] Social Security Administration (2023-A).

[17] *Ibid.*

[18] Sabelhaus and Volz (2022).

52 percent of the average adjusted working income of women and 46 percent for men.[19] Across both genders, the initial benefits will replace on average 50 percent of the average lifetime labor income of those in the lowest 20 percent of income earners compared to 22 percent for those in the highest 20 percent of earners (Table IV-1 below). At those replacements rates, the benefits for 18 percent of women and 9 percent of men will be lower than the current poverty threshold.[20]

People's Social Security benefits and replacement rates also increase with the age they first claim them, so initial benefits and replacement rates also depend on whether a person first receives them at age 62, ages 63 to 65, or later up to age 70. A majority of new retirees first claim their benefits before age 65, forgoing the highest benefits for waiting five to eight more years to claim them. In 2021, nearly 30 percent chose to retire at age 62 and another 26 percent at ages 63 to 65, when the retirement age entitling them to full benefits was 66 years and 2 months.[21] Less than 25 percent of new beneficiaries in 2021 retired with full benefits at age 66 and two months. Initial benefits also continue to increase for those who first claim them at older ages up to 70; and 18 percent of new beneficiaries in 2021 retired at age 67 or older, including 10 percent at age 70 and older.[22] However, analysts have found that the age when people retire generally has little effect on their lifetime benefits, since the additional years that early retirees receive them largely offset the lower annual benefits.[23]

Table IV-1: Social Security Average Initial Benefits and Replacement Rates in 2023
For Peak Boomers Retiring at Ages 62 and 65[24]

	Average Career Earnings	Average Initial Benefits		Replacement Rate	
		Retire at 62	Retire at 65	Retire at 62	Retire at 65
Very Low Earners	$15,788	$9,840	$12,244	56.2%	66.5%
Low Earners	$28,418	$12,840	$14,937	40.7%	50.2%
Medium Earners	$63,152	$21,173	$24,673	30.2%	36.2%
High Earners	$101,043	$28,118	$35,995	25.1%	29.9%
Steady Maximum Earners	$156,123	$34,265	$39,863	19.8%	23.8%

Social Security benefits accounted for more than half of the income of retirees ages 66 and older in 2022. (Table IV-2 below). By age 69, 59 percent of retirees relied on the benefits for at least their income, including 27 percent with no other income and 38 percent whose benefits accounted for 90 percent of their income. The share of retirees wholly dependent on Social Security declined for those in their early 70s, perhaps because lower life expectancy is correlated with lower incomes.[25]

[19]Congressional Budget Office (2019).
[20] *Ibid.*
[21] Congressional Research Service (2022).
[22] *Ibid.*
[23] Congressional Budget Office (2019).
[24] Burkhalter and Chaplain (2023).
[25] Chetty, Stepner, Abraham, Lin, Scuderi, Turner, Bergeron, and Cutler (2016).

Table IV-2: Percentage of Social Security Recipients, by Age, Whose Benefits Account for 100 percent, 90 percent, or 50 percent of Retirement Incomes, 2022[26]

Age	100 Percent	90 Percent	50 Percent
64	18.0%	24.6%	35.1%
65	23.9%	28.4%	44.3%
66	27.6%	35.5%	54.1%
67	18.5%	28.2%	53.5%
68	19.3%	33.6%	56.3%
69	27.4%	37.8%	59.2%
70	21.0%	34.7%	58.3%
71	19.1%	31.9%	56.4%
72	21.7%	34.9%	64.4%
73	18.9%	27.5%	56.7%
74	18.1%	30.6%	55.4%
75	22.6%	36.3%	56.0%

Peak boomers' lifetime benefits also depend on how long they live, and the life expectancy of seniors varies substantially based on gender, race and ethnicity, and education (Table IV-3 below). Men at age 65 will on average live 2.6 years less than women at 65. At age 65, male Hispanic peak boomers on average can expect to live to age 84.7 compared to age 81.2 for 65-year-old Black men. The impact of education is greater. The most highly educated 65-year-old peak boomers with graduate degrees can expect to live 6.2 years longer than their least educated counterparts. Combine gender and education, and the average life expectancy of a man at 65 without a high school diploma is 9 years less than a 65-year-old woman with a graduate degree.

Table IV-3: Life Expectancy at Age 65 by Gender, Race and Ethnicity, and Education[27]

	All	Male	Female
Race and Ethnicity (2016)			
All Races and Ethnicity (2016)	19.5 years	18.2 years	20.8 years
White	19.3 years	18.0 years	20.5 years
Black	18.0 years	16.2 years	19.5 years
Hispanic	21.4 years	19.7 years	22.7 years
Education (2014)			
No HS Diploma	13.3 years	12.1 years	14.3 years
HS Graduate	16.3 years	14.9 years	17.2 years
Some college or Assoc Degree	17.4 years	15.6 years	18.8 years
College Degree	18.8 years	17.5 years	20.3 years
Graduate Degree	19.5 years	18.6 years	21.0 years

[26] Authors' calculations based on data from the 2022 University of Michigan Health and Retirement Study (2024).
[27] Date by race and ethnicity, National Center for Health Statistics (2017); data by education, Singh and Lee (2021).

How Much Support from Social Security Peak Boomers Will Receive

Based on the income self- reported by peak boomers in 2022, we estimate that almost 14 percent will already have claimed Social Security benefits before 2024. More than two-thirds of those already receiving benefits or 9.6 percent of all peak boomers had qualified for Social Security based on disabilities, while 3 percent received retirement benefits. Based on when peak boomers say they expect to first claim retirement benefits and their expected amounts, we estimated their average annual benefit by year (Table IV-4 below). We found that 64 percent expect to start receiving those benefits by 2030, averaging $24,231 annually in 2022 dollars. Most peak boomers also believe correctly that their benefits will be higher if they claim them at a higher age. However, almost 5 percent say they do not expect to claim retirement benefits until 2036 or later despite the fact that the benefits reach their maximum levels at age 70, and the youngest peak boomer will turn age 70 in 2035.

Table IV-4: Peak Boomers' Estimated Monthly and Annual Social Security Retirement Benefits[28]

	New Peak Boomers Collecting Benefits	Cumulative Share Receiving Benefits	Average Monthly Benefit	Average Annual Benefit
Pre-2024	14.0%	14.0%	$1,258	$15,094
2024	2.5%	16.4%	$1,487	$17,843
2025	3.5%	19.9%	$1,339	$16,067
2026	5.7%	25.6%	$1,496	$17,953
2027	7.4%	33.0%	$1,842	$22,110
2028	9.8%	42.7%	$1,797	$21,563
2029	11.4%	54.1%	$1,792	$21,508
2030	9.6%	63.7%	$2,019	$24,231
2031	9.9%	73.6%	$1,817	$21,805
2032	10.6%	84.2%	$1,803	$21,640
2033	5.7%	89.9%	$2,167	$26,009
2034	4.1%	94.0%	$2,324	$27,893
2035	1.6%	95.5%	$1,826	$21,914
2036	0.9%	96.4%	$2,231	$26,775
2037	2.4%	98.8%	$2,311	$27,734
2038	0.5%	99.4%	$3,180	$38,165
2039	0.6%	100.0%	$2,486	$29,830

Our analysis of Social Security retirement benefits for peak boomers by gender, race and ethnicity, and education found, as expected, less disparities than in incomes and other retirement resources. (Table IV-5 below) The gender gap remains significant: The average benefits for peak boomer men are 32 percent greater than those for peak boomer women. However, the initial benefits for Black and white peak boomers are nearly the same, while those for Hispanic peak boomers are much lower. Education also matters somewhat less than in other areas: The average

[28] Authors' calculations based on data from the 2022 University of Michigan Health and Retirement Study (2024) and the 2022 Census Bureau Survey of Income and Program Participation (2023-A).

benefit for peak boomers with college degrees is virtually the same as the benefits for those with a graduate degree, only 18 percent higher than the benefits for those with some college or an associate degree, 32 percent higher than for high school graduates. However, the benefits for peak boomer college graduates are 82 percent higher than those for peak boomers without high school diplomas. Notably, Social Security will not be sufficient to protect seniors from near poverty: The average annual benefits for Hispanic peak boomers and those without high school diplomas are, respectively, only 4 percent and 26 percent above the 2022 poverty line for individuals.[29]

Table IV-5: Peak Boomers' Monthly and Annual Social Security Retirement Benefits and Total Benefits from Initially Retiring to 2039, By Gender, Race and Ethnicity, and Education[30]

	Monthly Benefit	Annual Benefit	Ratio to Average	Total By 2039
All Peak Boomers	$2,085	$25,026	100%	$308,586
Gender				
Male	$2,366	$28,391	113%	$350,076
Female	$1,783	$21,391	85%	$263,767
Race and Ethnicity				
White	$2,170	$26,037	104%	$321,057
Black	$2,078	$24,937	100%	$307,491
Hispanic	$1,587	$19,048	76%	$234,881
Other	$1,994	$23,925	96%	$295,011
Education				
No HS Diploma	$1,580	$18,964	76%	$233,834
HS Graduate	$1,911	$22,937	92%	$282,829
Some College or Assoc Degree	$2,150	$25,804	103%	$318,176
College Degree	$2,163	$25,954	104%	$320,026
Graduate Degree	$2,457	$29,479	118%	$363,499

One gauge of the adequacy of Social Security benefits is that 32 percent of seniors in 2022 required financial help from their adult children.[31] About 4 percent also received federal food assistance (SNAP) averaging $104 per month, and analysts estimate that another 4 percent were eligible but didn't claimed the benefit.[32] At the same time, however, 49 percent of seniors provided financial support for their adult children,[33] although only 2 percent provided sufficient support to claim their adult children as dependent for tax purposes.[34]

[29] Office of the Assistant Secretary for Planning and Evaluation (2024).

[30] Authors' calculations based on data from the 2022 University of Michigan Health and Retirement Study (2024). The calculations are based only on expected retirement benefits and do not include peak boomers already receiving benefits for disabilities or other causes.

[31] Parker and Patten (2024).

[32] National Council on Aging (2024).

[33] Parker and Patten (2024).

[34] Congressional Research Service (2020).

Analysts at the American Association of Retired Persons (AARP) estimate that maintaining seniors' lifestyles in retirement requires 80 percent of pre-retirement income.[35] By this metric, Social Security benefits are insufficient. Census Bureau data show that incomes decline from ages 55-to-59 to ages 70-to-74: Retirees' median incomes including Social Security decline about 40 percent for married couples, 33 percent for men living alone, and nearly 30 percent for women living alone (Table IV-6 below). For those living past age 75, incomes are down 52 percent for married couples, 36 percent for men living alone, and 40 percent for women living alone.[36]

Table IV-6: Median Income of Households with Married Couples, Men and Women Living Alone, All Races at Various Ages and Income Changes from Ages 55-59 to Ages in Retirement, 2022[37]

Ages	Married Couple	Change from 55 to 59	Male Alone	Change From 55 to 59	Female Alone	Change from 55 to 59
55 to 59	$135,000	--	$46,740	--	$41,650	--
60 to 64	$107,600	-20.3%	$37,780	-19.2%	$32,070	-23.0%
65 to 69	$86,520	-35.9%	$32,780	-29.9%	$32,410	-22.2%
70 to 74	$81,520	-39.6%	$31,770	-33.1%	29,390	-29.4%
75 +	$65,290	-51.6%	$29,990	-36.0%	$25,120	-39.7%

Despite its progressive benefit arrangements, Social Security can compound disparities in other aspects of seniors' financial security. Both income and life expectancy correlate with education, and education and income correlate with people's financial resources for retirement. Together, these factors produce serial disparities between highly educated seniors and those with less education in both their lifetime Social Security benefits and personal resources for retirement. Notably, education and income also are strongly correlated with health status. As a result, more highly educated retirees can expect to face less serious economic challenges from health-related problems than those less educated, although the longer life expectancies of more educated retirees may offset some of that advantage. At the same time, peak boomers with less education who live longer than expected are more likely to deplete their resources to pay for acute and people's long-term care.[38]

Widow's Penalty

In one respect, the rules of Social Security along with the tax code also produce large disparities through what is commonly called a "widow's penalty." The widow's penalty is the financial costs or disadvantages that a widow (or widower) faces after a spouse's death, based on her change in status from married to single (widow).[39] Consider a peak boomer married couple who both worked and earned $20,000 each in annual Social Security retirement benefits. When one of them dies, the other will receive the larger of the deceased spouse's benefits or the

[35] Waggoner (2023).
[36] *Ibid*.
[37] Census Bureau (2024).
[38] *Ibid*.; also, Zissimopoulos, Goldman, Olshansky, Rother, and Rowe (2015).
[39] Carlos (2023).

survivor's own benefit.[40] In this case, the Social Security income of the survivor's household is reduced by $20,000 while the fixed costs of maintaining the household are largely unchanged.

These circumstances become more common as people age.[41] In 2022, 60.2 percent of women ages 55 to 64 were married compared to 6.9 percent who were widows. By retirement age—ages 65 to 74—55.5 percent were married, and 17.4 percent were widowed; and among women ages 75 and older, 34.7 percent were still married, and 47.5 percent were widows.

The spouse's death also changes the survivor's income tax burden in ways that can be costly. Apart from Social Security, the survivor's income from the couple's retirement accounts and other financial assets are usually unchanged, but federal income taxes go up. The standard deduction falls from $29,200 for a married couple to $14,600 for a single. (For a single with a dependent, the deduction falls to $21,900, but as noted, very few seniors claim dependents for tax purposes.[42]) The change in filing status also increases federal taxes on income from retirement and other financial assets—including the mandatory annual withdrawals from 401(k)s and IRAs, and any additional income from stocks, bonds and other assets—by subjecting more income to higher tax rates (Table IV-7 below).

Table IV-7: Federal Income Tax Rates on Taxable Income by Single or Married Filing Status, 2024[43]

	Single	Married Filing Jointly	Head of Household
10%	First $11,600	First $23,200	First $16,550
12%	$11,600 to $47,150	$23,200 to $94,300	$16,550 to $63,100
22%	$47,150 to $100,525	$94,300 to $201,050	$63,100 to $100,500
24%	$100,525 to $191,950	$201,050 to $383,900	$100,500 to $191,950
32%	$191,950 to $243,725	$383,900 to $487,450	$191,950 to $243,700
35%	$243,725 to $609,350	$487,450 to $731,200	$243,700 to $609,350
37%	$609,350+	$731,200+	$609,350+

For a simplified example, consider a retired peak boomer couple, each with $20,000 in Social Security benefits and $40,000 in other income from pensions, annuities, retirement accounts and other assets. First, they would claim a $29,200 standard deduction, bringing their taxable income to $50,800. Only 85 percent of their Social Security benefits are taxable, reducing their taxable income by $6,000 to $44,800. For their federal income taxes, they would pay 10 percent on the first $23,200 and 12 percent on the remaining $21,600, or $4,912 ($2,320 + $2,592). Their post-tax income, therefore, would be $75,088.

Consider what happens when the husband (or wife) dies. The survivor's income falls $20,000 from the loss of one stream of Social Security benefits, leaving $60,000. The survivor's

[40] National Academy of Social Insurance (2024).
[41] Census Bureau (2023-C).
[42] Internal Revenue Service (2024).
[43] *Ibid.*

standard income tax deduction is $14,600, leaving $45,400. Since 85 percent of her Social Security income is taxable, her taxable income is reduced by $3,000 to $42,400. Based on current tax rates, she would owe $4,856 in federal income tax ($1,160 + $3,696). As a widow, she would bear most of the fixed costs from when her husband was alive—mortgage, car payments, property taxes, insurance, and so on. Yet she would pay virtually the same income tax as she and her husband paid on an income some $20,000 greater, and her post-tax income would be $55,144, versus $75,088 when her husband was alive.

V. Personal Annuities as a Retirement Resource for Peak Boomers

One of the fundamental risks facing most retirees is unknown longevity, and purchasing annuities can provide a retiree with a financial hedge against living longer than expected. In this context, Social Security is a publicly provided annuity purchased by a lifetime of payroll tax payments, and defined benefit pensions are an employer-provided annuity purchased through employee contributions and reduced wages or salaries. Annuities also share the tax preference of IRAs and 401(k)s since the steady increase in the value of an annuity's assets is untaxed and annuitants pay tax only on the income received after they retire.

Most of those policies are purchased by people in their fifties and early sixties,[44] and in 2020, 13.5 percent of Americans ages 50 and older owned annuity policies.[45] Most annuity owners are middle-class: The median household income of people owning annuities was $79,000 in 2022, including 25 percent with incomes below $50,000 and 70 percent with incomes below $100,000.[46] Annuity owners on average also are highly educated: 63 percent are college graduates including 34 percent with graduate degrees.[47] This is unsurprising since annuity purchasers are more likely to have access to funds in emergencies (liquidity), and such access is correlated with education and income.[48] Some 77 percent of annuity owners also have IRAs, 65 percent also own mutual funds, and 55 percent also own individual stocks and bonds. Even so, 53 percent of retirees with annuities cite Social Security benefits as a major source of their retirement incomes.[49]

Data are not available on peak boomers' use of annuities by gender, race and ethnicity, and education. However, since most annuities are purchased when people are in their fifties, annuity ownership rates and the income derived from them by retired baby boomers should also apply generally to peak boomers. We found that 8.2 percent of retired pre-peak boomers own personal annuities, and that rate varies little by gender (Table V-1 below). However, annuity ownership varies significantly by race and ethnicity with white pre-peak boomers 2.4 times as likely to own them as Black pre-peak boomers and 3.5 times as likely as Hispanic pre-peak boomers. Ownership rates also vary widely by education: The average 12.3 percent ownership rate for those with college or graduate degrees is 58 percent greater than the rate for those with

[44] Gallup Organization and Mathew Greenwald & Associates (2023).
[45] Center for Retirement Research at Boston College (2024).
[46] *Ibid*.
[47] *Ibid.*
[48] Davis, Hasler, and Lusardi (2021).
[49] Gallup Organization and Mathew Greenwald & Associates (2023).

some college or associate degrees, 2.3 times more likely than high school graduates, and 9.3 times more likely than those high school diplomas.

Table V-1: Annuity Ownership and Average Monthly and Annual Annuity Income For Pre-Peak Boomers, by Gender, Race and Ethnicity, and Education, 2022[50]

	Ownership Rate	Average Monthly Income	Average Annual Income
All Retired Boomers	8.2%	$1,214	$14,568
Gender			
Male	8.3%	$1,306	$15,671
Female	8.2%	$1,141	$13,696
Race and Ethnicity			
White	9.7%	$1,259	$15,104
Black	4.1%	$1,042	$12,509
Hispanic	2.8%	$376	$4,518
Other	4.2%	$795	$9,540
Education			
No HS Diploma	1.3%	$82	$979
HS Graduate	5.4%	$794	$9,540
Some College or Associate Degree	7.8%	$1,292	$15,509
College Graduate	11.5%	$1,397	$16,767
Graduate Degree	13.7%	$1,268	$15,213

Among retired pre-peak boomers that own annuities, the income they derive from them varies substantially based on gender, race and ethnicity, and education. While the average annual annuity income is about $14,600, and while there are various reasons for differences in annuity income, including the size of annuity value purchased, prevailing interest rates, and terms, etc., males receive nearly 15 percent more annuity income than female owners. Similarly, white annuitants derive 21 percent more income than Black annuitants and more than 3.3 times as much income as Hispanic boomers with the policies. The $15,990 in average annuity income received by retired boomers with college or graduate degrees is very close to the annuity income of those retired boomers with some college or associate degrees, but 70 percent greater than the annuity income of boomers with high school degrees and more than 16 times the average annuity income of the boomers without high school diplomas.

Why More Boomers Don't Have Annuities

In 2023, the underlying assets of all personal annuities totaled $2.3 trillion[51]-—a considerable sum but only 20 percent of the $11.5 trillion in assets held in IRAs, 28 percent of the $8.1 trillion in assets held in private sector DC plans, less than two-third of the $3.7 trillion in assets held in private sector DB pensions, and about half of the $4.5 trillion in assets underlying

[50] Authors' calculations based on the 2022 Census Bureau Survey of Income and Program Participation (2023-A).
[51] Insurance Information Institute (2023).

federal government DC and DB pensions.[52] All told, the annuity assets of Americans who own the policies are equivalent to 8.2 percent of the $27.8 trillion in assets held in these other forms of retirement plans.

Given that Social Security replaces only 40 percent of an average retiree's pre-retirement income, and the retirement savings of most people fall short of filling most of the gap, economists have tried to establish why more people don't purchase private annuities. One factor is that people in their fifties and early sixties underestimate their likelihood of living until 75 by an average of 25 percentage points,[53] while the financial institutions that sell annuities price them based on how long people are likely to survive. As a result, the prices of annuities may seem excessive to potential customer who underestimate their likely lifespans.[54]

This asymmetry of information may be exacerbated by adverse selection, as people with reasons to expect to live longer than average are more likely to purchase annuities. As a result, annuity providers also have to price in the likelihood that a disproportionate share of their customers will live longer than average based on their characteristics. They also have to take account of the risks that sustained or regular bear markets will depress the value of the assets they hold to pay off the annuities. A recent study by Federal Reserve economists found that these risks of adverse selection and market volatility raise the average price of annuities by 16 percent.[55]

Other economists have found that less than 40 percent of people use professionals to help them prepare for retirement,[56] and people who do not rely on professional advice in investing for retirement are less likely to purchase annuities, especially people with limited funds.[57] Given the pricing challenges and asymmetries of information in annuity markets, it appears that the pool of potential annuitants may be limited largely to people considerably more risk-averse than average.

Policies to Encourage People to Purchase Annuities.

Economists and others have proposed a number of approaches to encourage more people to prepare for retirement by purchasing annuities. In 2019, bipartisan support in Congress led to the passage of both the Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act), and the Securing a Strong Retirement Act of 2022 (SECURE 2.0), both of which greatly improved the retirement security environment by focusing on the importance of protected income in retirement.[58] The Secure Act provided a provision that made it easier for employers to offer an annuity option in a defined-contribution plan, while Secure 2.0 increased the amount that individuals can move into a qualified longevity annuity contract (QLAC).

Economists affiliated with the American Council on Capital Formation examined more comprehensive approaches including new regulation of 401(k)s to encourage greater use of

[52] Topoleski, Myers, and Gorman (2023).
[53] Odea and Sturrock (2020).
[54] *Ibid.*
[55] Verani and Yu (2021).
[56] Brown (2024).
[57] Davis, Hasler, and Lusardi (2021).
[58] Fichtner (2024)

retirement annuities.[59] For example, employer 401(k)s and other DC pension plans would have to provide life annuities as a withdrawal option. They also recommend two-tier 401(k) plans, with one tier for traditional investments and a second tier for investing in life annuity policies with larger tax incentives for investing in tier two. They also proposed targeted tax changes. For example, moderate-income households could claim a refundable tax credit for investing in annuities so they would enjoy a tax incentive comparable to those for higher-income households, and/or part of the income from an annuity could be exempt from income tax.

The challenge for policymakers is to encourage people to invest in ways that can ensure a steady and adequate income in retirement but with the least economic distortions. For example, exempting some of a person's annuity income from tax would not only reduce the effective price of annuity purchases, it also would reduce how much a person must invest to ensure a given stream of income. Similarly, fiduciary standards may discourage some institutions from offering annuity alternatives. In addition, many approaches to encourage investing in annuities would shift investments from other retirement vehicles without increasing overall retirement saving. In the end, a certain way to increase annuities and other retirement savings is broad economic reforms that can help people increase their incomes long before they retire.

VI. Supplementary Security Income as a Resource for Low-Income Retired Peak Boomers

Low-income peak boomers ages 65 and older with few assets also qualify for the Supplemental Security Income program (SSI). Eligibility is limited to those with incomes of less than $1,971 per month from pensions, Social Security, unemployment, and wages and salaries, or $23,652 annually.[60] About 57 percent of seniors on SSI also qualify and receive modest Social Security benefits based on at least 11 years of low-paid work, and 43 percent of senior SSI recipients do not qualify.[61] SSI recipients also cannot have more than $2,000 in assets ($3,000 for couples) excluding their homes, one vehicle, and personal belongings and household goods.[62]

In February 2024, 1,393,040 seniors received SSI benefits based on age and income, averaging just under $575 monthly or $6,895 annually.[63] Another 1,015,650 blind and disabled seniors also received SSI benefits in February 2024 averaging $722 monthly or $8,664 annually. Since those disabled and blind seniors qualified for SSI regardless of age and consequently do not increase SSI costs after reaching age 65, we focus here only on peak boomers who qualify based only on reaching age 65 with low incomes and few assets, in the years 2025 to 2030. SSA estimates that 1,112,000 low-income, low-asset seniors will receive SSI benefits in 2024.[64]

To estimate the numbers and cost of peak boomers who should receive SSI benefits from 2025 to 2030, we begin with SSA projections of new SSI beneficiaries ages 65 to 74 in the years from 2025 to 2030[65] and Census Bureau projections of peak boomers (seniors ages 65 to 70) as a

[59] Gentry and Rothschild (2006).
[60] Social Security Administration (2023-E).
[61] Social Security Administration (2024-A).
[62] Social Security Administration (2023-E).
[63] Social Security Administration (2024-B).
[64] Social Security Administration (2024-C).
[65] Social Security Administration (2023-F); and Social Security Administration (2023-G).

share of those ages 65 to 74 in those years.[66] Based on this analysis, we can estimate the new peak boomer beneficiaries each years from 2025 to 2030 and then adjust for the death rates of people ages 65 to 70 (Table VI-1 below).[67] The new peak boomer beneficiaries will range from 9,462 in 2025 to 7,980 in 2030; and by 2030, 48,400 peak boomers ages 65 to 70 will be receiving SSI benefits.

Table VI-1: Projected New and Total SSI Recipients Ages 65 to 74
And Peak Boomer SSI Beneficiaries, 2025 to 2030

	New Beneficiaries Ages 65 to 74	PB Share of 65-74 Year Olds	New PPB Beneficiaries	New PB Beneficiaries Mortality Adjusted	Total PB Beneficiaries
2025	83,000	11.4%	9,462	9,339	9,339
2026	83,000	22.4%	8,300	8,192	17,299
2027	84,000	32.9%	8,206	8,099	25,384
2028	84,000	43.0%	8,484	8,374	33,493
2029	84,000	52.9%	8,316	8,208	41,183
2030	84,000	62.4%	7,980	7,876	48,400

To estimate the federal costs of providing SSI support to the peak boomer beneficiaries from 2025 to 2030, we began with CBO projections of total SSI spending, ranging from $64 billion in 2025 to $73 billion in 2030.[68] Next, we draw on Social Security data showing that seniors ages 65 and over who are not blind or disabled account for 15.2 percent of SSI spending and calculate their share of SSI spending from 2025 to 2030, which ranges from $9.7 billion to $11.4 billion and totals $52.5 billion.[69] Finally, using Census Bureau projections of the number of seniors ages 65 to 70 and their share of all seniors over the years 2025 to 2030, we estimate the peak boomers' share of SSI spending on seniors and the associated costs of covering them, ranging from $634 million for those age 65 in 2025 to $3.3 billion for those ages 65 to 70 in 2030 (Table VI-2 below). The cost of SSI benefits for peak boomers who qualify for those benefits from 2025 to 2030 totals $12.6 billion.[70]

Table VI-2: Federal Costs of Peak Boomers' SSI Benefits, 2025 to 2030

	SSI Spending	Senior's Share of SSI Spending	Peak Boomers' Share of Seniors	Peak Boomers SSI Spending
2025	$64 B	$9.7 B	6.5%	$634 M
2026	$65 B	$9.9 B	12.7%	$1,258 M
2027	$67 B	$10.2 B	18.5%	$1,884 M
2028	$75 B	$11.4 B	23.9%	$2,720 M
2029	$65 B	$9.9 B	34.7%	$3,435 M
2030	$73 B	$11.1 B	29.7%	$3,299 M
Total	$345 B	$52.5 B		$12.6 B

[66] Census Bureau (2023-D).
[67] Social Security Administration (2022). "Actuarial Life Table, 2017."
[68] Congressional Budget Office (2024-A).
[69] Social Security Administration (2024-B).
[70] Census Bureau (2023-D).

Finally, we draw on a 2021 Census Bureau analysis of senior recipients of SSI benefits by gender, race and ethnicity, and education which shows large disparities in each category.[71] Drawing on this study, female peak boomers are more than twice as likely to qualify for SSI than male peak boomers; and while women comprise 52 percent of all peak boomers, they account for 69 percent of those likely to qualify for SSI and the associated costs from 2025 to 2030 (Table VI-3 below). Similarly, whites represent 64 percent of peak boomers but likely will account for only 32 percent of peak boomers on SSI and the associated costs. By contrast, Black peak boomers represent 12 percent of peak boomers but account for more than 19 percent of peak boomers expected to claim SSI benefits and the associated costs; and the 13 percent of peak boomers who are Hispanic will account for 31 percent of those on SSI from 2025 to 2030 and, again, the associated costs.

The greatest disparities are those based on education. People without high school diplomas comprise 9 percent of peak boomers but account for 48 percent of those likely to claim SSI benefits from 2025 to 2030. By contrast, those with some college or an associate degree represent 2 percent of peak boomers but only 12 percent of those expected to claim SSI benefits, and those with college or graduate degrees who comprise 32 percent of peak boomers will likely account for 12 percent of SSI peak boomer beneficiaries and the related costs.

Table VI-3: The Share of Peak Boomer SSI Recipients and the Costs of Their Benefits By Gender, Race and Ethnicity, and Education, From 202 to 2030

	Share of Peak Boomer Recipients of SSI	Share of All Peak Boomers	SSI Costs for Peak Boomers, 2025-2030
Gender			
Male	31.3%	47.9%	$3.95 B
Female	68.7%	52.1%	$8.66 B
Race and Ethnicity			
White	31.7%	63.8%	$3.94 B
Black	19.4%	12.2%	$2.44 B
Hispanic	31.1%	13.3%	$3.92 B
Other	3.3%	10.6%	$0.42 B
Education			
No HS Diploma	48.3%	9.0%	$6.09 B
HS Graduate	27.4%	35.5%	$3.45 B
Some College or Assoc Deg	12.1%	23.6%	$1.52 B
College Degree or Higher	12.3%	32.0%	$1.55 B
Total			$12.6 B

Accordingly, female peak boomers will receive $8.7 billion in SSI benefits from 2025 to 2030 or more than two-thirds of the costs for all qualifying peak boomers. SSI benefits for Black and Hispanic peak boomers will cost $6.4 billion from 2025 to 2030 or about 50 percent of the

[71] Giefer (2021).

total costs for all peak boomers. And peak boomers who never attended college will collect $9.5 billion in SSI benefits from 2025 to 2030 or 76 percent of the costs for all peak boomers.

VII: Home Equity as an Additional Resource for Peak Boomers' Retirements

In addition to Social Security benefits, retirement savings, and other financial resources, nearly two-thirds of peak boomers also own their homes and have equity in them. Home ownership by seniors increases as they age, with surveys reporting that 79 percent of all people over age 65 own their homes. The rate is substantially lower for those 55-to-64 years old, the ages of most peak boomers.[72] Our analysis of HRS data found that over 67 percent of peak boomers are homeowners compared to 28 percent who rent, less than 3 percent who live rent-free, and about 2 percent with "other arrangements" (Table VII-1 below). On this basis, two-thirds of peak boomers could access additional resources through home equity loans or selling their homes. However, the higher rate of home ownership among those over age 65 than among those ages 55 to 64 suggests that retired people are reluctant to sell and prefer to age in place.

Consistent with our other findings on assets, rates of homeownership are highest among white and Other peak boomers and those with college or graduate degrees and lowest among Black peak boomers and those without high school diplomas. Notably, home ownership rates differ little between male and female peak boomers or between those with high school diplomas and those with some college or associate degrees.

Table VII-1: Peak Boomer Homeowners, Renters, and Non-Homeowners Living Rent-Free, By Gender, Race and Ethnicity, and Education, 2022[73]

	Own	Rent	Live Rent-Free	Other
All Peak Boomers	67.4%	28.2%	2.6%	1.8%
Gender				
Male	68.4%	26.7%	3.5%	1.5%
Female	66.6%	29.5%	1.9%	2.0%
Race and Ethnicity				
White	74.6%	21.0%	2.7%	1.8%
Black	45.5%	48.1%	3.9%	2.5%
Hispanic	51.7%	43.7%	2.7%	1.9%
Other	74.7%	24.1%	0.6%	0.6%
Education				
No HS Diploma	40.2%	53.8%	2.4%	3.5%
HS Graduate	63.2%	32.2%	2.1%	2.4%
Some College or Assoc Degree	63.9%	32.6%	3.1%	0.4%
College Degree	78.3%	17.7%	1.7%	2.3%
Graduate Degree	85.6%	9.1%	5.0%	0.3%

[72] Joint Center for Housing Studies of Harvard University (2023); Federal Reserve Bank of St. Louis (2023); and Census Bureau (2021).

[73] Authors' calculations based on data from the 2022 University of Michigan Health and Retirement Study (2024).

Peak boomers' home equity (including zero equity for those who do not own their homes) varies substantially by race and ethnicity and by education (Table VII-2 below). Overall, the median home equity of all peak boomers of about $156,390 is equal to just under 70 percent of their median financial assets for retirement (not including Social Security). There is little difference between the home equity of male and female peak boomers in contrast to the males' substantial edge in financial assets. By contrast, the home equity of white peak boomers is 115 percent of the median for all peak boomers compared to 44 percent for Black peak boomers and 66 percent for Hispanic peak boomers. However, those differences are less than their disparities in financial assets, relative to the median for all peak boomers.

The greatest disparities in the home equity of peak boomers, relative to each other and relative to the median for all peak boomers, again are those based on education. The median home equity of peak boomers with college degrees is over 80 percent greater than the median for high school graduates and for those with some college or an associate degree, and four times the median for those without high school diplomas. In every case except peak boomers with some college or associate degrees, the disparities based on education are much less than their corresponding disparities in financial resources. The home equity of peak boomer homeowners, therefore, offsets some of the greater disparities in their financial assets.

Table VII-2: Median Home Equity and Median Retirement Savings of Peak Boomer Homeoners, By Gender, Race and Ethnicity, and Education, 2022[74]

	Median Home Equity	Ratio to All Peak Boomers	Median Retirement Savings	Ratio to All Peak Boomers
All Peak Boomers	$156,390	100%	$224,714	100%
Gender				
Male	$160,500	103%	$268,745	120%
Female	$152,930	98%	$185,086	82%
Race and Ethnicity				
White	$180,580	116%	$298,927	133%
Black	$69,070	44%	$49,047	22%
Hispanic	$103,900	66%	$123,337	55%
Other	$194,800	125%	$231,527	103%
Education				
No high school diploma	$54,850	35%	$6,992	3%
HS Graduate	$122,400	78%	$75,300	34%
Some College or Assoc Degree	$119,100	76%	$210,506	94%
College Degree	$221,810	142%	$591,158	263%
Graduate Degree	$267,200	171%	$661,449	294%

[74] Authors' calculations based on data from the 2022 Federal Reserve Survey of Household Economics and Decision Making (Board of Governors of the Federal Reserve System, 2023) and the 2022 University of Michigan Health and Retirement Study (2024).

Obstacles to Peak Boomers Accessing Their Home Equity

Peak boomers who consider drawing on part or all of their home equity typically find it expensive and difficult to do so. Loans tied to home equity are widely available, and from the late 1990s to 2007, 8 to 10 percent of senior households had direct home equity loans, lines of credit based on home equity, or used cash-out refinancings.[75] In recent years, those loans have involved substantial costs, including interest rates averaging 8 to 10 percent in 2023, origination fees, appraisal fees, and closing costs. Those costs help explain why from 2018 to 2020 an average of less than 2 percent of seniors per year borrowed funds based on home equity.[76]

More important, most seniors plan to age in place in their homes. In 2021, 88 percent of seniors lived in their own homes, including 20 percent living with a younger adult relative, or in the homes of an adult child.[77] A 2021 survey also found that 82 percent said that they want to stay in their homes for the rest of their lives,[78] principally because they feel connected to their homes and community and want to live close to their friends and family.[79] While 5 percent of senior homeowners report relocating in the previous year—compared to 16 percent of younger homeowners—most of those seniors continued to be homeowners.[80]

The costs and stress often entailed in selling a home also help explain why most seniors plan to age in place. The largest costs are real estate broker commissions averaging 4.9 percent of the home sale price in 2020 and the costs of home improvements and staging to prepare a house for sale.[81] In addition, 36 percent of peak boomers in 2022 carried mortgages that would have to be paid off when they sold their homes.[82] And any profits from a senior's home sale also are subject to capital gains tax of 15 percent or 20 percent (depending on income) if the seller's taxable income is $44,625 or more ($89,250 for a married couple).

VIII: Market Volatility and the Future Value of Peak Boomers' Financial Assets

The value of the financial assets owned by a majority of Americans and the income derived from them are subject to considerable volatility. When asset values fall, younger people can offset the impact by working and saving more or ride it out until values rise again. Retirees are more exposed and vulnerable to volatility because their capacity to earn more is limited and many depend on the value of their assets for living expenses. Social Security benefits provide some income stability, but few can maintain their lifestyles based only on those benefits. Given the historic and recent volatility in U.S. stock and bond markets, peak boomers set to retire may not be able to rely on a steady income from those assets.

[75] Canner, Durkin, and Luckett (1998); and Jacobe (2007).
[76] Kaul and Zhu (2021).
[77] Joint Center for Housing Studies of Harvard University (2023).
[78] Tzanetos (2021).
[79] Joint Center for Housing Studies of Harvard University (2023).
[80] *Ibid.*
[81] Daugherty (2023).
[82] Joint Center for Housing Studies of Harvard University (2023).

Most peak boomers will rely on holdings in retirement accounts for some of their living expenses income in retirement, with the median value of $224,714, through interest and dividends and by gradually cashing in assets. When markets rise, the increased value of their holdings can offset the impact when markets decline, and over the long-term, stocks and bonds have produced substantial returns: From 1928 to 2022, the average annual real returns were 8.3 percent for the S&P 500 (including dividends), 1.9 percent for 10-year Treasury bonds, and 3.9 percent for BAAA corporate bonds.[83] Over periods of five to 10 years, retirees cannot rely on those long-term returns—and when markets fall for several years, millions of retirees become poorer and cannot offset their losses.

Economists use technical measures to gauge the volatility in equity and bond markets on an hourly, daily, monthly, quarterly, and annual basis.[84] To understand the potential volatility in the value of peak boomers' financial assets, we reviewed the real annual returns of the S&P 500 (including dividends) and 10-year Treasury bonds (including price changes and interest payments) over two seven-year periods—from 1973 to 1979 when markets were broadly weak with negative real returns in five of the seven years for stocks and six of those years for bonds; and from 2017 to 2022 when markets were generally strong with positive real returns in five of the seven years for stocks and three years for bonds (Table VI-1 below).

From 1973 to 1979, the real annual returns of the S&P 500 ranged from negative 34 percent in 1974 to positive 28.1 percent in 1975 and the real annual returns on 10-year Treasury bonds ranged from 10.6 percent in 1976 to negative 12.8 percent in 1977. The volatility from 2017 to 2023 was more on the positive side for stocks, although returns on the S&P 500 still ranged from 28.3 percent in 2019 to negative 23.0 percent in 2022. Returns on 10-year Treasury bonds ranged from 9.8 percent in 2020 to negative 22.8 percent in 2022 and were negative on balance.

Table VIII-1. Real Returns on S&P 500 Stocks and 10-Year Treasury Bonds, 1970-1978 and 2014-2022[85]

Real Return on S&P 500				Real Return on 10-Year Bonds			
1973	-21.2%	2017	19.1%	1973	- 4.6%	2017	0.7%
1974	-34.0%	2018	- 6.0%	1974	- 9.2%	2018	-1.9%
1975	28.1%	2019	28.3%	1975	- 3.1%	2019	7.2%
1976	18.1%	2020	16.4%	1976	10.6%	2020	9.8%
1977	-12.8%	2021	20.0%	1977	- 5.1%	2021	-10.75%
1978	-2.3%	2022	-23.0%	1978	- 9.0%	2022	-22.8%
1979	4.7%	2023	22.3%	1979	-11.1%	2023	0.7%
Average	-2.8%		13.9%		-0.3%		-2.4%

[83] Damodaran (2023).

[84] See for example, Christofferson, Jacobs, and Mimouni (2010); Bhowmik and Wang (2020).; Lui and Maheu (2009); and Lambert (2022).

[85] Damodaran (2023).

Using these findings, we can project the impact of comparable volatility on the peak boomers' median financial retirement assets of $224,714 in 2022 by applying the changes in the annual real returns of stocks and bonds from the two periods to estimate their value from 2024 to 2030. We assume that the peak boomers' median assets in 2022 were held 50 percent in stocks and 50 percent in bonds. Applying the recorded real returns in 2023 of 22.25 percent for the S&P 500 and 0.74 percent for 10-year bonds, the peak boomer starts 2024 with $137,637 in stocks and $120,671 in bonds, or a total of $258,308 in financial assets. We also assume that every year from 2025 to 2030, retired boomers help fund the next year's living expenses by selling 7.5 percent of the stocks and 7.5 percent of their bonds.

In both cases, the value of the boomer's financial assets rise and fall with the markets, fluctuating substantially and sometimes sharply year to year following the historical volatilities in real returns for equities and bonds. (See Tables VIII-2 and VIII-3 below.) In the more bullish case when peak boomers' real returns from 2024 to 2030 replicate those from 2016 to 2023, the median retiree is in sound financial shape. Starting with financial assets worth $224,714 in 2022 and $258,308 in 2023, the peak boomers would have $224,166 in 2030 after withdrawing $125,833 or 7.5 percent per year for living expenses from 2025 to 2030.

In the more bearish case when the peak boomers' real returns from 2024 to 2030 shadow those from 1973 to 1979, 56 percent of the retirees' assets would be gone. Starting again with financial assets worth $224,714 in 2022 and $258,308 in 2023, the peak boomer would have $114,353 in 2030 after withdrawing $72,300 or 7.5 percent per year for living expenses from 2025 to 2030.

Table VIII-2: Median Financial Assets of Peak Boomers from 2024 to 2030,
Starting in 2023 with $137,637 in Equities and $120,671 in Bonds, and
7.5 Percent Withdrawn Annually from 2025 to 2030 for Living Expenses,
Based on Real Returns from 1973 to 1979 and Real Returns from 2017 to 2023

	Assets Held in Stocks		Assets Held in Bonds		Total Assets	
	Based on 1973-1979 Real Returns	Based on 2016-2023 Real Returns	Based on 1973-1979 Real Returns	Based on 2016-2023 Real Returns	Based on 1973-1979 Returns	Based on 2016-2023 Returns
2024	$108,458	$163,926	$115,120	$121,516	$22,578	$285,441
2025	$66,214	$142,533	$96,689	$110,266	$162,903	$252,800
2026	$78,458	$169,155	$86,665	$109,340	$165,123	$278,495
2027	$85,710	$182,129	$88,663	$111,051	$174,372	$293,181
2028	$69,133	$202,163	$77,830	$91,680	$146,964	$293,843
2029	$62,478	$143,991	$65,514	$65,469	$127,991	$209,459
2030	$60,479	$163,160	$53,874	$61,007	$114,353	$224,166

The analysis shows that if future markets follow the 1970s, peak boomers in 2030 will be left with less than half the assets they would have if those markets had replicated more recent returns. And with a 7.5 percent annual withdrawal rate from 2025 to 2030, their financial assets

would have provided $12,050 per year for living expenses if future markets followed the 1970s, compared to $20,972 per year if the markets follow the record of recent returns.

Table VIII-3: Assets Withdrawn from Equity and Bond Holdings for Living Expenses, 2025-2030

	From Stock Portfolio		From Bond Portfolio		Total Withdrawn	
	Based on 1973-1979 Real Returns	Based on 2016-2023 Real Returns	Based on 1973-1979 Real Returns	Based on 2016-2023 Real Returns	Based on 1973-1979 Returns	Based on 2016-2023 Returns
2025	$5,369	$11,557	$7,840	$8,941	$13,208	$20,497
2026	$6,361	$13,715	$7,027	$8,865	$13,388	$22,581
2027	$6,949	$14,767	$7,189	$9,004	$14,138	$23,771
2028	$5605	$16,392	$6,311	$7,433	$11,916	$23,825
2029	5,066	$11,675	$5,312	$5,308	$10,378	$16,983
2030	$4,904	$13,229	$4,368	$4,946	$9,272	$18,176
Total	$34,254	$81,335	$38,046	$44,498	$72,300	$125,833

The Impact of Volatility on Peak Boomers' Assets, By Gender, Race and Ethnicity, and Education

We also applied volatility analysis to the median financial assets of peak boomers based on their gender, race and ethnicity, and education. In 2022, male peak boomers had 45 percent more financial assets than female peak boomers, and white peak boomers had six times the assets of Black peak boomers and 2.4 times the assets of their Hispanic counterparts (Table III-1 above). The largest disparities are based on education: In 2022, peak boomers with college degrees had 2.8 times the financial assets of those with come college or an associate degree, nearly 7.9 times the financial assets of those with high school diplomas, and 85 times the financial assets of peak boomers with those diplomas.

Notably, the disparities are even greater within demographic groups, based on Federal Reserve data on the concentration in ownership of stock and mutual fund shares: In 2023, the top 20 percent owned 84.5 percent of those assets including 33.5 percent owned by the top one percent.[86] Wealthier seniors also can often protect themselves from market volatility or take advantage of it through personal advisers and wealth managers, anticipating or responding quickly to the changes in economic fundamentals that affect the value of stocks and bonds.[87] The vast majority of peak boomers, however, however, lack the information and access to the analysis that would help them manage their assets in response to the factors that drive the volatility.[88]

Here, we track the impact of volatility on the financial assets of peak boomers in 2030 based on three factors closely associated with how many such assets they owned in 2022—gender, race and ethnicity, and education (Table VIII-4 below).

[86] Board of Governors of the Federal Reserve System (2023).
[87] Schwert (1989) and Schwert (1990).
[88] Christiansen, Schmeling, and Schrimpf (2012); Engle, Ghysels, and Sohn (2012); and Diebold and Yilmaz (2010).

Table VIII-4: The Value of Peak Boomers' Median Financial Assets in 2030
By Gender, Race and Ethnicity, and Education,
Based on Real Returns from 1973 to 1979 and from 2017 to 2023

	Assets Held in Stocks		Assets Held in Bonds		Total Assets	
	Based on 1973-1979 Returns	Based on 2016-2023 Returns	Based on 1973-1979 Returns	Based on 2016-2023 Returns	Based on 1973-1979 Returns	Based on 2016-2023 Returns
All Peak Boomers	$60,479	$163,160	$53,874	$61,007	$114,353	$224,166
Gender						
Male	$54,955	$195,240	$64,418	$73,002	$119,373	$268,242
Female	$37,848	$134,311	$44,365	$50,290	$82,213	$184,601
Race and Ethnicity						
White	$61,127	$216,922	$71,652	$81,223	$132,779	$298,145
Black	$10,030	$35,592	$11,757	$13,327	$21,787	$48,919
Hispanic	**$25,211**	$89,502	$29,564	$33,513	$54,775	$123,015
Other	$47,345	$168,012	$55,497	$62,909	$102,842	$230,921
Education						
No HS Diploma	$1,430	$5,074	$1,676	$1,900	$3,106	$6,974
HS Graduate	$15,404	$54,664	$18,056	$20,468	$33,460	$75,132
Some Col/Assoc Deg	$43,046	$152,757	$50,458	$57,197	$93,504	$209,954
College Degree	$120,885	$428,983	$141,699	$160,625	$262,584	$589,608
Graduate Degree	$135,239	$479,992	$158,548	$179,725	$293,787	$659,717

Our analysis, which also included the 7.5 percent annual withdrawals, found that women peak boomers who started with about $185,100 in retirement assets in 2022 would have $82,200 left in 2030 under the bear scenario and nearly $184,600 under the bull scenario, compared respectively to $119,400 and $268,200 for peak boomer men (Table VII-4 above). In 2030, retired white peak boomers would have nearly $132,800 under the bear market case and $298,000 with the bull market, compared to Black peak boomer retirees with respectively less than $22,000 and less than $49,000, or compared to retired Hispanic peak boomers in 2030 with less than $55,000 or about $123,000 in financial assets. Finally, under the two volatility scenarios, retired peak boomers with college degrees would have $262,600 or $589,600 left in financial assets in 2030, versus those with some college or associate degrees, left with $98,500 or $210,000, retired peak boomer high school graduates with $33,500 or $75,100, and those without high school diplomas left with $3,100 or $7,000 in financial assets.

This analysis shows that peak boomers with average or even above average financial resources for retirement could feel substantial economic stress by 2030 under broadly bearish markets through the 2020s. It also shows that bull and bear markets will increase the current disparities and inequalities in peak boomers' financial retirement assets.

Potential Volatility in the Value of Peak Boomers' Home Equity

As a resource for retirement funds, the value of a peak boomer's home equity also can prove to be volatile, including periods in which housing values decline. Using the Shiller-Case

Index of Housing Prices, annual changes in the value of residential housing from 2000 to 2022 ranged from negative 10.0 percent in 2008 to positive 18.8 percent in 2021 and averaged positive 5.1 percent.[89] (See Table VIII-5 below.) This record includes 11 consecutive years from 2011 to 2022 when housing values increased rose steadily and six consecutive years from 2006 to 2011 when residential housing prices declined steadily.

Table VIII-5: Changes in Housing Prices Based on the Shiller Case Index, 2000 to 2022

2000	9.3%	2001	6.7%	2002	9.6%	2003	9.8%	2004	13.6%	2005	13.5%
2006	1.7%	2007	-5.4%	2008	-12.0%	2009	-3.9%	2010	-4.1%	2011	-3.9%
2012	6.5%	2013	10.7%	2014	4.5%	2015	5.2%	2016	5.3%	2017	6.2%
2018	4.6%	2019	3.4%	2020	10.6%	2021	18.8%	2022	7.3%		

In 2022, peak boomers' median home equity was $156,390, and we can demonstrate the volatility in that potential resource for living expenses in their retirements with two scenarios, as we showed with their financial assets. For the first bullish case, we assume that housing values will increase from 2023 to 2030 at the same rates they did from 2015 to 2022. For the second bearish case, we assume that those housing values increase and decline at the same rates they did from 2005 to 2013. By 2030, the peak boomers' median home equity would increase 79 percent under the first scenario or decline more than 14 percent under the second scenario (Table VIII-6 below).

Table VIII-6: Changes in the Median Value of Peak Boomers' Home Equity from 2023 to 2030 Based on the Volatility in Housing Prices from 2015 to 2022 and from 2005 to 2012

	Home Equity Based on Annual Changes In Housing Prices, 2015 to 2022	Home Equity Based on Annual Changes In Housing Prices, 2005 to 2012
2022 (Actual)	$156,390	$156,390
2023	$164,520	$177,500
2024	$173,240	$174,480
2025	$183,980	$165,060
2026	$192,440	$145,250
2027	$198,990	$136,680
2028	$220,080	$131,080
2029	$261,450	$125,970
2030	$280,540	$134,160

This analysis shows that based on the recent record of housing values, peak boomers could see their home equity jump from $156,390 in 2022 to $280,540 in 2030 or decline over the same years from $156,390 to $134,160—a difference in 2030 of $146,380. No one can predict the ups and downs of mortgage-rate sensitive housing prices as peak boomers retire. Some

[89] Federal Reserve Bank of St Louis (2023-A).

analysts expect some downward pressure on their home values from lagging demand.[90] For example, the houses of many older couples are larger and more expensive than many younger people desire, and some houses owned by seniors are located in places with relatively few younger buyers such as areas of Florida or in places unsuitable for younger buyers such as age-restricted communities.

IX. Other Potential Financial Issues for Retired Peak Boomers

Uncertainties about the value of the peak boomers' retirement assets also could affect other sources of their future incomes, including Social Security benefits and payments from defined benefit (DB) pensions.

Social Security's Funding Challenges

One potentially serious problem for peak boomers is the prospect that when the Social Security system's financing issues turn critical in the early 2030s—and nearly all peak boomers are receiving benefits—Congress could respond by cutting back those benefits. As it is, Social Security old age assistance already depends on an indirect form of deficit finance. For many years, its annual revenues—from payroll taxes, income tax on some benefits, interest earned on Treasury securities held in the Social Security Trust Fund (SSTF), and some other minor resources—exceeded its outlays for benefit payments and administrative costs. Social Security turned over its surpluses to Treasury which in turn issued government securities to the Social Security Administration. Those securities comprise the holdings of the SSTF. So, in 2023, when Social Security's total revenues of $1,305.7 billion fell short of its spending of $1,392.1 billion, the Treasury bridged the gap by redeeming the first of the securities held in the SSTF.[91] Those redemptions required their own funding, so the Treasury undertook additional deficit financing to cover the shortfall.

Based on Social Security projections of its spending on benefits and revenues over the next decade, the SSTF reserves will be exhausted by 2033.[92] In that year, the SSTF will have no more securities to redeem, and the system will face an estimated shortfall of about $550 billion.[93] By law, only dedicated taxes can be used to support Social Security benefits. Without Congressional action to allow the use of general revenues or to raise the dedicated payroll taxes, analysts report that reconciling the system's projected spending and revenues would require cuts of about 19 percent in people's benefits from 2033 onward.[94] Without such action, millions of retired peak boomers could face large lifetime benefit reductions that would damage their financial security—ranging from 13.5 percent for those with modest benefits to almost 21 percent for those with much larger benefits (Table IX-1 Below)[95] These projected benefit cuts for the rest

[90] Masnick, George (2015).
[91] Congressional Budget Office (2023).
[92] Pattison (2015); and Committee for a Responsible Federal Budget (2023).
[93] Congressional Budget Office (2023-A).
[94] See, for example, Committee for a Responsible Federal Budget (2023).
[95] Congressional Budget Office (2023-A).

of the retirees' lives reflect differences in their lifetime pre-retirement incomes, but every retiree would face substantial benefit reductions.

Table IX-1: Estimated Reductions in Peak Boomers' Lifetime Social Security Benefits Based on their Pre-Retirement Earning Subject to Payroll Taxes, by Income Quintile (2023 $)

Lifetime Earnings	Reduction (2023 $)	Percentage Reduction
Quintile 1	$23,000	13.5%
Quintile 2	$46,000	16.1%
Middle Quintile	$71,000	18.5%
Quintile 4	$98,000	20.0%
Quintile 5	$128,000	20.9%

A similar challenge arose in the early 1980s, when Social Security's projected spending for retirement benefits first exceeded the projected revenues from the payroll taxes dedicated to pay for them. In 1983, Congress adopted several consequential changes proposed by the Greenspan Commission to reduce future spending and increase future revenues, sufficiently to cover Social Security's projected spending for several decades and also produce the surpluses that became the SSTF.[96] On the spending or benefit side, Congress gradually raised the retirement age for full benefits from 65 to 67 and shifted annual cost-of-living adjustments from June to December. On the revenue side, Congress accelerated several already scheduled increases in payroll tax rates and applied income tax to half of the retirement benefits of middle-income and higher-income beneficiaries.

When Congress faces a similar crisis in coming years, one response could be broad benefit cuts for more than 70 million people in 2033 and millions of others more expecting to claim their benefits soon thereafter. However, seniors comprised more than 25 percent of the national voting electorate in 2020, and the peak boomers will increase their numbers.[97] In lieu of broad benefit cuts, Congress could take steps in the early 2030s to allow use of general revenues to pay benefits, gradually raise the retirement age to 68 in the 2040s, and/or tweak benefits for high-income people retiring in the late 2030s or 2040s.

Funding Challenges for Public and Private Defined Benefit Pension Plans

Defined benefit pensions provide retirement income in much the same way as annuities, with the difference that employers fund DB pensions while annuities are typically purchased by their beneficiaries. Whether a DB plan is operated and funded by a state or local government or by a private employer or group of employers, the plans face a common challenge of ensuring that their funding will cover the future claims. This challenge is larger and more urgent for public DB benefit plans. From 2000 to 2023, the average funding ratio of state and local government DB plans—how much of the present value of a plan's future benefits is covered by its' current assets—ranged from 94.4 percent in 2000 to 62.4 percent in 2009 and averaged 76.4 percent in

[96] National Commission on Social Security Reform (1983).
[97] Kaiser Family Foundation (2023).

2022 and 2023 (Table IX-2 below.)[98] As a result, the unfunded liabilities of these plans nationwide have varied from $231 billion in 2007 to $1.35 trillion in 2009 during the financial crisis and in recent years from $1.0 trillion in 2021 to $1.49 trillion in 2023.[99] Five state governments and their localities account for about half of the current underfunding—California, Illinois, New Jersey, Texas, and Pennsylvania—and half of all state and local government underfunding involves school and teacher pension plans.

Table IX-2: State and Local Government Defined Benefit Pension Plans:
Average Funded Ratio, 2000-2023

2000	94.4%	2001	92.4%	2002	80%	2003	79.2%	2004	85%	2005	86.3%
2006	88%	2007	92.4%	2008	78%	2009	62.4%	2010	67%	2011	70.5%
2012	70%	2013	70.9%	2014	75%	2015	72.5%	2016	68%	2017	71%
2018	72.2%	2019	72.8%	2020	71.5%	2021	83.9%	2022	75.4%	2023	77.4%

These issues could affect the retirement security of many peak boomers: 75 percent of state and local employees have been enrolled in DB plans compared to 19 percent enrolled in DC plans and 6 percent not covered by any plan.[100] The funding challenge reflects in part the country's broader demographic challenge, as number of beneficiaries relative to current members paying in has risen sharply. In 1993, state and local DB pension plans had 11.8 million members and 4.5 million beneficiaries or 2.6 members for each beneficiary. By 2021, with 14.9 million members and 12.0 million beneficiaries, there were 1.2 members for each beneficiary (Table IX-3 below). As a result, the total annual benefits paid to beneficiaries increased $48.3 billion in 1993 to $325 billion in 2021, more than six-fold and, adjusted for inflation, more than three-fold.

Table IX-3: State and Local Public Pension Plans:
Members, Beneficiaries, and Benefits Paid, 1993-2021[101]

	Plans	Members	Beneficiaries	Benefits Paid
1993	2,213	11.8 m	4.5 m	$48.3 b
2000	2,209	13.9 m	6.3 m	$91.3 b
2010	3,418	14.7 m	8.3 m	$200.6 b
2021	4,632	14.9 m	12.0 m	$325 b.

State and localities employ a range of approaches to address their looming liabilities, beginning with increases in employee contributions through state and local payroll taxes. States and localities also have increased their own contributions. In 2021, state and local governments invested on average 8.2 percent of their payrolls to cover promised benefits and the equivalent of 21.9 percent of their payroll for investments to close their funding shortfalls over time. Yet

[98] Equable Institute (2024).
[99] *Ibid*.
[100] Zook (2023).
[101] Census Bureau (2023).

these strategies have not fully offset the large increases in benefit payments, a dynamic that will soon be exacerbated by the retirement of peak boomers who have been employed by state and local governments.

The managers of these plans are also trying to raise the returns on their assets by shifting substantial parts of their portfolios to riskier alternative assets. In 2022, 23.5 percent of public pension assets were held in bonds and cash and 42.5 percent in equities, and the remaining one-third of assets were invested in riskier instruments through private equity and hedge funds and real estate and commodity instruments.[102] The value of these alternative assets jumped from $100 billion in 2000 to $1.6 trillion in 2022.[103] The value of stocks and bonds can be volatile while generally rising over substantial periods—from 1993 to 2023, real annual returns averaged 7.4 percent for the S&P 500 and 4.65 percent for corporate bonds. The returns on alternative instruments are more volatile, and they now comprise one-third of the assets of state and local government DB plans.

An analysis of ten states ranging from Vermont and New Hampshire to Texas and Michigan found that state contributions to their DB plans increased from 6.2 percent of their General Fund budgets in 2009 and 12.9 percent in 2022.[104] In drawing heavily on general funds while also accepting greater risk and raising employee and employer contributions, many state and local governments face painful tradeoffs: Funding their DB pension plans increasingly constrains funding in other areas such as public education and law enforcement, forces layoffs in some cases, and creates new pressures to raise taxes on consumers, property owners, and businesses.

Another strategy adopted by some state and local governments has been to shift some employees to new DC pension plans, especially new government workers. In 2010, 10 states had mandatory DC or hybrid DB/DC plans, while 40 states had only DB plans.[105] By 2022, 19 percent of all state and local public workers participate in DC plans including 5 percent with access to only DC plans and 34 percent with access to both DC and DB plans.[106]

Private Employer Defined Benefit Plans

Private companies sponsoring DB pension plans face less pressing funding challenges. A recent analysis of the 100 largest corporate DB plans found that their average funding ratio was 96.3 percent in 2021 and 99.3 percent in 2022.[107] However, this development is recent: Their funded ratio from 2008 to 2020 remained less than 90 percent, and 19 of the 100 plans were less than 90 percent funded in 2021. Even so, privately sponsored DB plans have been consistently better funded than those offered by state and local governments.

Two factors explain the difference. Private DB pensions (and DC plans) are strictly regulated by U.S. Department of Labor under the Employee Retirement Income Security Act

[102] *Ibid.*
[103] *Ibid*.
[104] Equable. The states are KY, NH, MI, IL, LA, VT, NJ, TX, SC, and CT.
[105] Munnell, Aubry, Hurwitz, and Quinby (2011).
[106] Zook (2023).
[107] Wadie, Perry, and Bottelli (2023).

(ERISA), while states regulate their own DB pension plans. Equally important, private employers offering their employees retirement saving plans have shifted largely from DB pensions to DC plans. As a share of private-employer pensions, the number of DB plans declined from 30.3 percent in 1980 to 6.6 percent in 2000 and 6.2 percent in 2021, and the share of private employees covered by DB plans fell from 65.6 percent in 1980 to 40.3 percent in 2000 and 21.4 percent in 2021 (Table IX-4 below).[108] Accordingly, the share of private employer pension benefits paid by DB plans declined from 52.6 percent in 1980 to 37.4 percent in 2000 and 26.4 percent in 2021.

This shift has increased the number of working Americans covered by employer-based pensions by 2.5 times, from 57.9 million in 1980 (38 million under DB plans and 19.9 million under DC plans) to 146.2 million in 2021 (31.3 million under DB plans and 111.9 million under DC plans). In effect, however, the shift from employer provided DB plans to DC plans has transferred much of the challenge and burden of pension funding from plan sponsors to participating employees.

Table IX-4: Numbers of Private Employer Defined Benefit and Defined Contribution Plans, Participants and Benefits Paid, Selected Years from 1980 to 2021[109]

	Defined Benefit Plans			Defined Contribution Plans		
	No. of Plans	Participants	Benefits Paid	No. of Plans	Participants	Benefits Paid
1980	148,096	38.0 m	$22.1 b	340,805	19.9 m	$13.1 b
1990	113,062	38.8 m	$66.4 b	599,246	38.8 m	$63.0 b
2000	48,773	41.6 m	$127.5 b	686.878	61.7 m	$213.5 b
2010	46,543	41.4 m	$169.7 b	654,469	88.8 m	$287.3 b
2021	46,388	31.3 m	$278.5 b	700,034	114.9 m	$776.9 b

The Role and Volatility of Discount Rates

The high funding ratio for private DB plans funds in 2022, a year when the returns on the 100 largest private plans averaged *negative* 18.3 percent, reflects a sharp decline in their expected future liabilities from $1.85 trillion to $1.33 trillion that more than offset the decline in their assets from $1.78 trillion to $1.32 trillion.[110] This decline in future liabilities did not arise from fewer projected beneficiaries or cuts in expected benefits but from rising interest rates that sharply increased their average discount rate. The discount rate determines the present value of a plan's expected future benefit obligations based on the expected future returns on equities and corporate and government bonds, and those projected returns are very sensitive to interest rate changes.

In 2022, long-term interest rates in the United States rose sharply with rising inflation, and the assumed returns on the plan's assets increased accordingly, reducing the present value of their future liabilities. At the same time, the market value of the 100 DB plans' assets fell $462 billion based mainly on the falling prices of bonds as interest rates increased—and bonds comprised 51.4 percent of their assets. In addition, the equities that comprised 25.0 percent of

[108] Employee Benefits Security Administration ()2023).
[109] *Ibid.*
[110] Wadie, Perry, and Bottelli (2023).

their assets fell 19.6 percent.[111] (Their remaining assets were held in hedge funds, private equity funds, real estate investment trusts, and other alternative instruments.) Because the discount rate rose sharply, their expected future liabilities decline more than the value of their assets. To be sure, the improvement in their funding ratios also reflected step by the plans to reduce future risk through annuity purchases, buyouts, and lump sum settlements.[112]

However, opposite dynamics happened in 2023 when the plans' 9.9 percent returns on equities were largely offset as easing inflation lowered the lower discount rate which in turn increased the plans' expected long-term liabilities.[113] This volatility in the official estimates of the long-term liabilities of DB plans is a recent new dynamic as inflation had been low and interest rates had remained near zero from 2009 to 2020. With the recent return to an economic environment in which interest rates and inflation rise and fall with normal changes in economic conditions, the funding ratios of private and public DB plans will likely become volatile, limiting the significance of the relationship between DB pension plan assets and long-term liabilities to whatever conditions prevail at the time.

X. The Impact of Peak Boomer Retirements on Social Security and Medicare

The peak boomers will have significant effects on the funding requirements for the major entitlement programs, Social Security and Medicare. In 2022, there were 30.4 million people who will turn age 65 between 2024 and 2030, assuming they live that long (Table II-1 above). However, the cost of covering the peak boomers is not based directly on those numbers, because every year, millions of people die at ages 65 to 70. The additional net cost to those programs depends on how many people ages 65 and over receive support from them, and that also depends on the mortality of those ages 70 and over.

To estimate the costs to the programs in the years when the peak boomers turn 65 and older from 2024 to 2030, we use Census Bureau projections to track the impact of peak boomers turning 65 on the total population of Americans ages 65 and older.[114] The number of peak boomers turning age 65 crests in 2026, while the mortality of seniors ages 65 and older and covered by Social Security and Medicare rises steadily as the overall senior population ages (Table XI-1 below). As a result, the total number of people eligible for Social Security retirement benefits and Medicare increases year by year, while the net increases in their numbers steadily decline.

[111] *Ibid*.

[112] The improved funding was also based on nearly $20 billion in new contributions from plan sponsors, financed mainly by federal funds provided under the 2021 American Recue Plan.

[113] Wadie (2024).

[114] Census Bureau (2023-B).

Table X-1: Census Bureau Estimates of Changes in the U.S. Senior Population, 2024 to 2034

	Total 65 and Older	Number Turning 65	Net Change in 65 and Older	Deaths of Seniors 65 and Older
2024	61,521,972	4,055,646	1,827,995	2,227,651
2025	63,326,603	4,101,586	1,804,631	2,296,955
2026	65,106,632	4,145,836	1,780,029	2,365,807
2027	66,798,846	4,128,017	1,692,214	2,435,803
2028	68,382,810	4,090,511	1,583,964	2,506,547
2029	69,873,988	4,068,807	1,491,178	2,577,629
2030	71,183,498	3,959,162	1,309,510	2,649,652
Post Peak Boomers				
2031	72,261,329	3,799,425	1,077,831	2,721,594
2032	73,202,109	3,733,790	940,780	2,793,010
2033	74,052,197	3,709,500	850,088	2,859,412
2034	74,906,519	3,779,480	854,322	2,925,158

These developments have large budgetary consequences. The large cohort of peak boomers turning 65 from 2024 to 2030 will increase expenditures for Social Security and Medicare while rising mortality among seniors will offset a significant part of the peak boomers' costs. While 28.6 million people are projected to turn 65 from 2024 to 2030, almost 17.1 million seniors are expected to die in the same years, for a net increase of 9.7 million beneficiaries for Social Security and Medicare. This trend will further intensify in the years following 2030: By 2034, when 3.8 million people are expected to turn age 65, the net increase in seniors ages 65 and older is projected to be only 854,000.

These estimates are consistent with the Social Security Administration's (SSA) projected mortality rates for people ages 65 and older, versus those ages 64 and younger. For example, Social Security projects that the mortality rate in 2025 will be 4,197 per 100,000 for those 65 and older compared to 254 for people 64 and younger; and in 2030, mortality rates for those 65 and older will be 4,036 per 100,000 compared to 244 for those younger.[115]

Social Security OASI Spending on Peak Boomers

To estimate the initial effect on Social Security spending from the peak boomers in 2025 to 2030, we adjust the SSA estimates of the increases in Old Age and Survivors Insurance (OASI) in those years by first excluding the projected COLA adjustments for those years (3.2 percent in 2024 and 2.4 percent per year in 2025 to 2030).[116] This establishes how much OASI spending will increase based only on changes in the total number of beneficiaries—the spending for new peak boomer beneficiaries each year less the spending for peak boomers and other beneficiaries who are expected to die each year. We then adjust those net increases for the expected COLAs from

[115] Social Security Administration (2023).
[116] Social Security Administration (2023-B); and Social Security Administration (2023-D).

2025 to 2030 and apply the ratio of peak boomers to the net changes in the number of seniors ages 65 and older to estimate the discrete impact of peak boomers on OASI spending by year (Table X-2 below).

Table X-2: OASI Spending and New OASI Spending for Peak Boomers Turning 65, 2025 to 2030

	OASI Spending	OASI Spending for Peak Boomers Turning 65	Net Additional OASI Spending
2025	$1,392.7	$77.7	$34.2
2026	$1,475.3	$84.4	$36.3
2027	$1,560.0	$93.4	$38.3
2028	$1,650.2	$104.7	$40.6
2029	$1,742.9	$116.8	$42.8
2030	$1,837.4	$136.5	$45.2
Total	$9,658.5	$613.6	$237.4

We estimate that peak boomers turning 65 from 2025 to 2030 will add between $78 billion and $136.5 billion per year to Social Security retirement costs, for a total of $613.6 billion over six years and an average of $102.3 billion annually. Taking account of the reduced spending from the mortality of seniors in those years as well as the increased spending for the peak boomers' benefits, net Social Security spending for retirement benefits will increase an average of $39.6 billion per year and a total of $237.4 billion over the six years. Therefore, the cost of the peak boomers' benefits will increase Social Security spending by 6.35 percent, and more than 61 percent of that additional spending—67 percent in 2030—will be offset by the mortality of seniors on OASI.

Medicare Spending for Peak Boomers

To estimate the additional Medicare costs for peak boomers who will turn 65 in the years from 2025 to 2030, we begin with the differences in Medicare spending based on a beneficiary's age. Those estimates are based on the analysis by the Kaiser Family Foundation of average Medicare costs by age in 2020: In that year, Medicare spending for 65-year-olds averaged $8,901 and increased to $9,306 for those 66, $9,567 at age 67, $9,871 at age 69, and $10,030 for those age 70—and continued to rise to averages of $14,239 for 80-year-olds and $19,548 for 90-year-olds.[117]

To derive cost estimates for the peak boomers' Medicare coverage from 2025 to 2030, we applied the reported inflation in healthcare costs in 2021, 2022, and 2023, and for the years 2024 to 2030, we applied the 2.7 percent average inflation rate in healthcare spending from 2014 to 2023.[118] All estimates are Medicare costs net of beneficiary premiums and other offsetting revenues. The results are presented in Table X-3:

[117] Kaiser Family Foundation (2023)-A.

[118] The rates from 2014 to 2023 were 3.0% in 2014, 2.6% in 2015, 4.1% in 2016, 1.8% in 2017, 2.0% in 2018, 4.6% in 2019, 1.8% in 2020, 2.2% in 2021, 4.0% in 2022, and 0.5% 2023. US Inflation Calculator (2024).

Table X-3: Estimated Per-Person Medicare Costs for Peak Boomers Ages 66 to 70, 2025 to 2030

	2025	2026	2027	2028	2029	2030
65	$9,765	$10,026	$10,250	$10,588	$10,904	$11,119
66	$10,028	$10,299	$10,577	$10,863	$11,156	$11,457
67	$10,485	$10,768	$11,059	$11,357	$11,664	$11,979
68	$10,778	$11,069	$11,368	$11,675	$11,990	$12,314
69	$11,121	$11,421	$11,730	$12,046	$12,372	$12,706
70	$11,300	$11,605	$11,919	$12,241	$12,571	$12,911
Average	$10,742	$11,032	$11,331	$11,636	$11,951	$12,273

Based on the number of peak boomers turning 65 by year (Table IX-1 above), average Medicare costs by age and year, and mortality rates for people ages 65 to 70, we estimate Medicare costs for peak boomers by year Table X-4 below).[119] Using those data and CBO projections of Medicare spending by year, we also estimated the Medicare costs for peak boomers as a share of all Medicare spending by year.[120]

Table X-4: Estimated Medicare Costs for Peak Boomers Ages 65 to 70, Total Medicare Costs, and Peak Boomers' Share of All Medicare Spending, 2025 to 2030 (Billions $)

	2025	2026	2027	2028	2029	2030	Total/Average
PB Medicare Costs	$40.05	$82.73	$129.5	$183.1	$233.9	$296.1	$965.4
Adj. for Mortality	$39.61	$79.72	$122.5	$169.5	$212.1	$263.8	$887.2
All Medicare Costs	$1,152.0	$1,223.0	$1,314.0	$1,407.0	$1,507.0	$1,617.0	$8,220.0
PB % of Medicare	3.4%	6.5%	9.3%	12.0%	14.1%	16.3%	10.8%

This analysis suggests that the additional net costs associated with covering the peak boomers from 2025 to 2030 may not greatly strain Medicare financing. From 2025 to 2030, the peak boomers will be the youngest group of Medicare recipients; and by 2030, Medicare will spend $264 billion covering them. Total Medicare costs will increase by $110 billion from 2029 to 2030, so the mortality of Medicare recipients who age with the peak boomers will offset $154 billion or 58 percent of the costs to cover the peak boomers in 2030. In 2030, the 27.8 million peak boomers also will account for nearly 37 percent of the 75.3 million Medicare beneficiaries but only 16.3 percent of all Medicare costs in 2030,[121] reflecting again the lower costs to cover peak boomers and the mortality of recipients with higher per-person costs.

In other areas of government spending on seniors, insufficient retirement savings will increase the costs of federal and state means-tested programs. A recent analysis by ESI Econsult Solutions estimated that Americans on average fall $7,050 short of a 75 percent replacement rate of their pre-retirement income, increasing the costs to cover seniors receiving Medicaid, SSI,

[119] Social Security Administration (2022); also, Our World in Data (2023).
[120] Congressional Budget Office (2024).
[121] Centers for Medicare and Medicaid Services (2023).

Medicare Part D subsidies, and SNAP food assistance.[122] The study estimated that spending for those programs would fall substantially if Americans saved on average $117,500 more (2020 $).

XI. The Impact of Peak Boomers' Retirements on the Economy, 2024 to 2030

Employment

Peak boomers currently comprise over 10 percent of the labor force, and we found earlier that 10.9 million or about 55 percent plan to fully retire by 2030. Using data on peak boomers' employment and plans for retirement, we found that these waves of retirements will have significant effects on labor markets in many industries (Table XI-1 below).[123]

Table XI-1: Job Losses from Peak Boomers Retiring, By Industry, Based on When Peak Boomers Plan to Retire and Assuming Half Not Planning to Retire by 2030 Change Their Plans[124]

Industry	Planned Retirement		Change Plans	
	Loss	Percent	Loss	Percent
Accommodation and Food Services	262,116	2.4%	438,916	4.1%
Agriculture, Forestry, Fishing, and Hunting	161,221	7.1%	216,027	9.5%
Arts, Entertainment, and Recreation	262,216	7.4%	286,477	8.1%
Construction	1,010,814	8.5%	1,249,237	10.5%
Educational Services	730,085	5.2%	1,236,998	8.8%
Finance and Insurance	520,255	6.7%	761,036	9.8%
Health Care and Social Assistance	1,630,314	7.3%	2,135,500	9.6%
Information	188,053	6.3%	245,711	8.3%
Management, Administration and Support, & Waste Mgt	581,442	8.3%	694,384	9.9%
Manufacturing	1,344,242	8.6%	1,841,795	11.8%
Other Services (except Public Administration)	433,030	5.7%	646,511	8.5%
Professional, Scientific, and Technical Services	930,769	6.8%	1,220,592	8.9%
Public Administration and Active-Duty Military	725,522	9.1%	845,689	10.6%
Real Estate and Rental and Leasing	330,639	10.1%	391,330	12.0%
Retail Trade	648,627	3.9%	1,002,304	6.1%
Transportation and Warehousing	607,090	6.1%	953,927	9.6%
Utilities	183,560	12.3%	250,046	16.7%
Wholesale Trade	325,466	10.0%	398,146	12.2%
Total	**10,875,461**	**6.7%**	**14,814,626**	**10.1%**

[122] ESI Econsult Solutions (2023).

[123] Authors calculations from HRS data. Respondents who also reported plans to shift to part-time employment are counted as a 0.5 reduction in employment for the period between partial and full retirement.

[124] Authors' calculation based on data from the 2022 University of Michigan Health and Retirement Study (2024), the 2023 Current Population Survey Household Data on employed persons (Bureau of Labor Statistics, 2024-A), and 2022 data on Total Factor Productivity for Major Industries (Bureau of Labor Statistics, 2023-B). The sample size required that we adjust the planned retirements for the Utilities sector based on the overall ratio of employment losses between planned retirements and the changed plans scenarios across all other sectors.

We project that peak boomer retirements in three industries will exceed 1 million employees in manufacturing, construction, and healthcare and social assistance; and they will also number between 500,000 and 1 million in professional, scientific, and technical services, education, finance and insurance, public administration and active-duty military (government), retail trade, transportation and warehousing, and in management, administration and support, and waste management.

Peak boomer retirements in three industries will also be equivalent to 10 percent or more of the current workforces—utilities, wholesale trade, and in real estate and rental and leasing—and between 7.5 percent and 10 percent of the current employment in construction, manufacturing, public administration and the active-duty military, and management, administration and support, and waste management. Overall, peak boomer retirements from 2024 to 2030 will be equivalent to 6.8 percent of all employment in 2023.

However, studies have found that many people retire several years earlier than they had planned, principally for health reasons and/or because they lost their jobs, they were bought out by employers reducing costs, or they simply were unhappy in their jobs.[125] One recent survey found that 64 percent of retirees stopped working before they had planned, and another study found that retirees stopped working an average of three years before they had expected.[126] Similarly, a third analysis found that people age 50 and older who were current working people said they planned to retire at a median age of 67 while current retirees stopped working at a median age of 62.[127]

To take account of this evidence, we also assumed half of peak boomers who did not report plans to retire by 2030 will change those plans at some point by 2030. In this scenario, 14.8 million peak boomers will retire between now and 2030, including more than 2.1 million peak boomers in the healthcare and social assistance industry, more than 1.8 million in manufacturing, and more than 1.2 million each in construction, in education, and in professional scientific and technical services (Table XI-1 above). These retirements will account for more than 10 percent of the current employment in manufacturing, construction, utilities, wholesale trade, public administration and active-duty military, and in real estate and rental and leasing.

Employment has continued to grow as tens of millions of older baby boomers have retired, and the jobs that peak boomers leave will be filled mainly by workers from Generation X born between 1965 and 1980. In turn, their old jobs will be taken by other members of Gen X or Millennials born from 1981 to 1996, whose jobs in turn will be filled by other Millennials, Gen Z young people entering the labor force, and recent immigrants. Accordingly, the Bureau of Labor Statistics has forecast that total U.S. civilian employment will increase from 164.5 million in 2022 to 169.1 million in 2032, even as the waves of peak boomers retire.[128] The increased turnover associated with peak boomer retirements, however, will substantially increase business costs: A 2019 Gallup survey of businesses found that replacing an employee costs from one-half to two-

[125] Collinson and Cho (2023).
[126] Nationwide (2023); and Employee Benefits Research Institute (2023-A).
[127] Collinson and Cho (2023).
[128] Bureau of Labor Statistics (2023-A).

thirds of the employee's annual salary.[129] And by raising recruitment and training costs for U.S. businesses, the large numbers of peak boomer retirements could dampen productivity, investment, and wage and salary growth in the most affected industries.

Output and Productivity

The labor force impact of the peak boomers' retirements also will affect GDP or industry output. GDP and industry output will continue to grow as those who fill the retirees' former positions and most other workers gain more experience and as businesses increase capital investment to raise their workers' productivity. Accordingly, the Congressional Budget Office (CBO) recently forecast that real GDP will grow at a 2.1 percent average annual rate through 2030, and the Bureau of Labor Statistics (BLS) has estimated 2.3 percent average annual real growth for the same period.[130]

We can analyze the impact of the peak boomers' retirements, by themselves, on GDP from 2024 to 2030 using both the peak boomers' stated retirement plans for 2024 to 2030 and the higher retirement rates that assume half of those who do not expect to retire in those years will change their plans. We also assume that the additional retirements are distributed by year and industry proportionately to the planned retirements in each industry. The analysis suggests that the waves of peak boomer retirements, by themselves, will reduce GDP by an average of 1.1 percent per year and, based on the current CBO GDP forecast for 2030, would produce downward pressures equivalent to 7.3 percent of GDP by 2030. Despite the significant drag from the peak boomers' retirements, CBO forecasts 2.1 average annual real GDP growth because younger workers will step into the peak boomers' positions, millions of Gen Z members and young-adult immigrants will join the workforce and, as we will see, productivity will continue to increase.

This analysis draws on productivity data from the BLS Office of Productivity and Technology (OPT), which covers only selected industries and does not include data by the age of workers. Consequently, we assume that the productivity of any given age group of workers in each industry is proportional to that group's share of wages across all industries.

With these assumptions, we used the data on distribution of wages and productivity by industry to calculate the productivity of peak boomers working in each industry and then applied the projected employment losses from peak boomer retirements, by industry, to estimate overall GDP loss by industry and by year from 2024 to 2030. The industries listed in Table XI-2, below, are those for which OPT provides industry-specific productivity data and the HRS dataset is of a sufficient sample size. Overall, the industries comprised just over 50 percent of GDP in 2023. To calculate estimates for the total foregone GDP associated with peak boomers' retirements, we also assume that the weighted average of peak boomer productivity for the industries in the OPT dataset is a reasonable approximation for peak boomer productivity in all industries.

[129] McFeely and Wigart (2019).

[130] Congressional Budget Office (2024); Dubina, Ice, Kim, and Rieley (2021).

Table XI-2: Output Losses Due to Peak Boomers Retiring, Selected Industries, Based on When Peak Boomers Plan to Retire and Assuming Half of Peak Boomers Not Planning to Retire by 2030 Change Their Plans (2022 $)[131]

Industry	Planned Retirement		Changed Plans	
	2030	Cumulative	2030	Cumulative
Accommodation and Food Services	$51.0 B	$138.1 B	$85.4 B	$231.4 B
Management, Administrative and Support, & Waste Mgt	$125.8 B	$445.7 B	$150.3 B	$532.3 B
Manufacturing	$272.8 B	$1,053.4 B	$373.7 B	$1,443.3 B
Other Services (except Public Administration)	$43.5 B	$139.2 B	$65.0 B	$207.9 B
Professional, Scientific, and Technical Services	$154.3 B	$566.3 B	$202.3 B	$742.7 B
Retail Trade	$85.2 B	$292.4 B	$131.8 B	$452.4 B
Transportation and Warehousing	$67.4 B	$162.1 B	$105.9 B	$254.9 B
Wholesale Trade	$187.4 B	$630.7 B	$229.3 B	$771.5 B
Total	$987.3 B	$3,427.9 B	$1,343.9 B	$4,636.4 B
All Industries	$1,965.9 B	$6,899.7 B	$2,772.1 B	$9,587.8 B

Using the total estimated employment and output losses associated with peak boomer retirements, we can also estimate their retirements' isolated impact on productivity. We found that the estimated 7.3 percent reduction in GDP and 6.5 percent reduction in hours worked, in themselves, would reduce economy-wide productivity by 0.89 percent in 2030. If 50 percent of peak boomers who expect to keep working changed their minds, the productivity loss would increase to 1.32 percent.

Again, analysts also reasonably forecast gains in productivity from 2024 to 2030 because each year that peak boomers retire, the drag from their retirements is offset and superseded by technological progress, capital investment, and the additional year of experience gained by everyone who continues to work. Since 2010, private nonfarm business labor productivity has grown at an annual rate of 1.2 percent.[132] If this trend continues, productivity will increase 8.5 percent from 2024 to 2030. This also suggests that the modest productivity losses related to the peak boomers' retirements will be substantially smaller than the countervailing productivity gains from other sources.

Consumer Spending

The aging of the peak boomers will also have substantial effects on consumer spending. People's incomes usually decline when they retire and spending priorities and preferences change as people age, especially if they have retired. The Consumer Expenditure Survey (CES) provides

[131] Author's calculation based on data from the 2022 University of Michigan Health and Retirement surveys, the 2023 Current Population Survey Household Data Table 18b. Employed persons by detailed industry and age, the 2022 Bureau of Labor Statistics data on Total Factor Productivity for Major Industries, and the Q3 2023 Bureau of Economic Analysis's GDP by Industry data.

[132] Bureau of Labor Statistics (2024).

the most comprehensive data on consumer spending, and those data show that an average retirees' expenditures are about 25 percent less than the national average, strong evidence of the income effect.[133] Since the income effect and changes in seniors' spending priorities and preferences both increase with age, the 25 percent estimate likely overstates the impact on spending by peak boomers as they turn 65 and retire.

CES also provides data on spending by age group that can be applied to forecast changes in consumption patterns by the peak boomers. Drawing on the 2012 and 2022 CES data for the cohort ages 55 to 74, we estimated peak boomers' spending in 2032 overall and in five categories that together represent about 50 percent of aggregate consumer spending. The five categories are expenditures for transportation, housing, food, apparel, and entertainment. In each case, peak boomers' projected spending declines.

The analysis estimates the expected spending by peak boomer "consumer units"—essentially households and "any set of one or more people that make joint financial decisions and are independent of other consumer units"—in 2032 compared to 2022 and in 2022 dollars (Table XI-3, below). We calculate the percentage changes in the five types of expenditures by consumer units headed by people ages 55 to 64 in 2012, compared to those headed by people ages 65 to 74 in 2022 and relative to the changes in expenditures by the total population from 2012 to 2022. In 2022, the peak boomers were ages 57 to 63, and here we assume that their consumption levels are reasonably close to the 55 to 64 age group. Since the heads of those consumer units were 65 to 74 years old in 2022, we use their historical changes in inflation-adjusted spending from 2012 to 2022 to estimate the approximate real changes by peak boomers aging from 2022 to 2032, when they will be ages 67 to 73. We also tracked overall consumption trends for those ages 55 to 64 in 2012 to those ages 65 to 74 in 2022 to estimate the aggregate reduction in spending for comparable age groups from 2022 to 2032.

All told, we expect peak boomers will spend $204 billion less in 2032 than they did in 2022 in all five categories. Transportation spending declines 22 percent and accounts for 25 percent of the total decline, followed by a 5 percent reduction in expenditures for housing that accounts for 10 percent of the total reduction. Apparel purchases decline by the largest percentage but represent the smallest share of total spending.

Table X-3: Changes in Consumer Spending by Peak Boomer Consumer Units
Five Major Categories, 2032 Versus 2022 (USD 2022)

	Average Annual Spending		Percentage Reduction 2022 to 2032	Aggregate Spending Reduction
	2022	2032		
Transportation	$13,596	$10,564	22.3%	$51.9 B
Housing	$24,140	$22,865	5.3%	$21.8 B
Food	$9,791	$9,142	6.6%	$11.1 B
Apparel	$1,830	$1,186	35.2%	$11.0 B
Entertainment	$3,698	$3,131	15.3%	$9.7 B
All Spending	**$78,079**	**$66,129**	**15.3%**	**$204.4 B**

[133] Bureau of Labor Statistics (2023-B).

As with the direct effects of retiring peak boomers on employment, productivity, and output, the decline in peak boomer spending after retiring does not reduce total consumption spending: As members of Gen X, the Millennials, and Gen Z age along with the peak boomers from 2022 to 2032, their incomes will increase and consequently so will their spending. CBO estimates that real consumer spending will grow at an annual rate of 2.0 percent from 2022 to 2032, and BLS estimate that consumer spending from 2020 to 2030 will add an average of 1.8 percentage points per year to GDP from 2020 to 2030.[134]

XII. Conclusions

As the peak boomers near retirement age, many will have insufficient resources, including Social Security, to maintain their pre-retirement lifestyles, and a substantial share will struggle economically. These burdens will be broadly distributed based on the peak boomer's gender, race and ethnicity, and education. Retired peak boomer women, people of color, and those without college degrees have had lifetimes of lower incomes, on average, than peak boomer men, whites, and college graduates. As a result, peak boomer women, people of color, and those without college degrees are less likely to have pensions, IRAs, and other resources for retirement; and those pensions, IRAs, Social Security, and other retirement resources are smaller, on average, than those of peak boomer men, whites, and college graduates. Beyond the averages, significant shares of *every* group of peak boomers are not financially prepared for their retirements.

The peak boomers' financial resources also could increase or decline significantly once they have retired, because the stock and bond markets historically are often very volatile over five-to-seven-year periods. And when those markets decline substantially, most retired peak boomers will be unable to simply work more to restore their assets or wait it out until markets recover. In addition, strong bull markets or serious bear markets will increase the disparities between the median resources of retired peak boomers based on their gender, race and ethnicity, and education.

The retirement of the peak boomers as they reach age 65 and older also will create additional large spending obligations for Social Security retirement benefits and Medicare. However, as all seniors also continue to age from 2024 to 2030, their mortality will offset 61 percent of Social Security's additional costs and 58 percent of the additional costs for Medicare.

The aging and retirement of the peak boomers also will affect the economy. From 2024 to 2030, employers will have to replace between 10.8 million and 14.8 million experienced peak boomer employees at substantial cost, including 1 million to 2 million each in manufacturing, construction, health care, education, retail trade, and professional, scientific, and technical services. These large labor force effects will also directly dampen productivity by 0.9 percent to 1.3 percent, which along with the associated reduction in hours worked will reduce GDP growth by 7.3 percent by 2030. And as the peak boomers retire, their reduced incomes will affect reduce their consumer spending by an estimated 15.3 percent, including projected declines of 22 percent

[134] Congressional Budget Office (2024) and Dubina, Ice, Lynn Kim, and Rieley (2021.

for transportation, 5 percent in housing, 7 percent for food, 15 percent for entertainment, and 35 percent for apparel.

The economy will adapt to the forces created by the peak boomers' aging and retirement. Younger employees will fill the jobs vacated by peak boomers, and total employment will continue to increase as new entrants join the labor force. Similarly, productivity and GDP will rise as technological progress continues, companies continue to invest, and workers continue to gain more experience. Total consumer spending also will increase even as the peak boomers' incomes decline in retirement as the incomes of younger workers continue to grow and more than offset the peak boomers' reduced spending.

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Dr. Robert J. Shapiro is the chairman of Sonecon, LLC, a firm in Washington D.C. that provides economic guidance and analysis to U.S. and foreign government officials, business executives, and leaders of non-governmental organizations. He is a Fellow of the Georgetown University Center for Business and Public Policy, a board director of Beyond, Inc., and an advisory board member of Cote Capital. Dr. Shapiro has advised Presidents Bill Clinton and Barack Obama, Vice President Albert Gore, Jr., British Prime Minister Tony Blair and Foreign Secretary David Miliband, Secretary of State and Senator Hillary Clinton, Treasury Secretaries Yanet Yellen and Timothy Geithner, White House chiefs of Staff Ron Klain and Rahm Emmanuel, and other senior members of the Biden, Obama and Clinton administrations and the U.S. Congress. Dr. Shapiro and Sonecon also have provided analysis to companies including AT&T, Exelon, ExxonMobil, Fujitsu, Gilead Sciences, Google, Nasdaq, and UPS, and to nonprofit organizations including the International Monetary Fund, the Brookings Institution, and the U.S. Chamber of Commerce. Before founding Sonecon, Dr. Shapiro was the U.S. Under Secretary of Commerce for Economic Affairs. Prior to that, he was co-founder and Vice President of the Progressive Policy Institute and the Legislative Director and Economic Counsel to Senator Daniel Patrick Moynihan. He also served as principal economic advisor to Bill Clinton in his 1992 presidential campaign, senior economic adviser to Hillary Clinton in her 2016 campaign, and policy adviser to the campaigns of Joseph Biden, Barack Obama, John Kerry, and Albert Gore, Jr. He holds a Ph.D. and M.A. from Harvard University, a M.Sc. from the London School of Economics, and an A.B. from the University of Chicago.

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