American Academy of Actuaries

Policy Paper

DECEMBER 2025

An Actuarial Perspective on the 2025 Social Security Trustees Report

The 2025 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance (OASI) and Federal Disability Insurance (DI) Trust Funds (*2025 Trustees Report*) is a detailed annual assessment of Social Security's financial status. It informs discussions of Social Security's financial challenges and possible solutions. The Social Security Administration's actuarial staff develops financial projections for Social Security under the direction of the Social Security Board of Trustees, which are included in the 2025 Trustees Report. Its assumptions were set in December 2024 to reflect emerging demographic and economic events and conditions.

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Highlights of the 2025 Trustees Report

- The combined Social Security trust fund reserves are projected to become depleted in the third quarter of 2034, compared with a projected depletion in the second quarter of 2035 last year, almost a year earlier.*
- If changes to Social Security are not implemented before 2034, only 81% of scheduled benefits will be payable as trust funds are depleted that year. The payable percentage is projected to decline to 72% by 2099.
- The long-range actuarial deficit in the 2025 Trustees Report increased to 3.82% of taxable payroll from 3.50% of taxable payroll.
- The most recent projection is impacted by the law that repealed the Windfall Elimination Provision and the Government Pension Offset, a lower assumed share of GDP paid as labor compensation, and an extension of the period to reach the assumed ultimate total fertility rate.
- Social Security currently fails both short-term (over the next 10 years) and long-term (over the next 75 years) measures of financial adequacy. Over the short term, the current reduction in immigration counts may adversely affect the system's financial condition. Over the long term, a continuation of the current historically low rate of fertility would also negatively impact trust fund finances.

Old-Age, Survivors, and Disability Insurance Trust Funds

	2025	2024
Projected reserve depletion date	2034	2035
Percentage of benefits payable at depletion date	81%	83%
Percentage of benefits payable in 75th year	72%	73%
75-year actuarial deficit (as % of taxable payroll)	3.82%	3.50%

Implementing changes sooner rather than later would enable a broader array of reform options to maintain the system's financial soundness and allow more generations to share in the needed revenue increases or benefit cuts. Social Security plays a critical role in the lives of 70 million beneficiaries and 185 million covered workers and their families in 2025. With timely action based on informed discussion and creative thinking, Social Security can continue to protect future generations.

* This analysis assumes that the Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) trust fund monies can be reallocated as needed, a practice that Congress has authorized in the past. If no action is taken, the OASI trust fund is projected to be depleted in the first quarter of 2033, compared with the fourth quarter of 2033 in last year's Trustees Report.

See the next page for an update on the projected effect of subsequent legislation.

The purpose of this policy paper is to provide an actuarial perspective on the 2025 Trustees Report.

The trustees made changes to the intermediate assumptions in two primary areas:

i. Given the low level of the total fertility rate (TFR) in recent years, the trustees revised the year the ultimate TFR of 1.9 children per woman is reached from 2040, as stated in the 2024 Trustees Report, to 2050. This change is consistent with an expectation that current low fertility rates (averaging about 1.6 children per woman) will recover relatively slowly from current low levels.

ii. The trustees reduced the assumed ratio of total labor compensation to Gross Domestic Product (GDP), also known as the labor share of output. The ratio is now assumed to increase gradually to 61.2% in 2034 and remain nearly constant thereafter. For the 2024 Trustees Report, the ratio was assumed to reach 62.8% in 2033 then remain at about that level.

Subsequent to the publication of the 2025 Trustees Report, Social Security's Office of the Chief Actuary released updated estimates of the program's financial status, reflecting the impact of 2025 tax legislation.[1] The reduced income tax rates and increased deductions included in the bill are expected to reduce the program's projected tax revenue by roughly $16 billion per year. The impacts of this reduced revenue on program finances include an increase in the actuarial deficit from 3.82% to 3.98%, and a six-month shift in the projected depletion date from third-quarter 2034 to first-quarter 2034.

Social Security's Financial Status

The last substantial changes made to the Social Security system occurred in 1983. To support future benefits, including the ability to pay benefits to the baby boom generation in retirement, the 1983 amendments called for accumulating more assets in the Old-Age, Survivors, and Disability Insurance (OASDI) trust funds than necessary to pay immediate benefits. At the end of 2024, the amount in the trust funds was $2.72 trillion. However, as has been known for many years, without some changes to Social Security, this amount, in concert with future taxes and trust fund earnings, will not support the scheduled level of benefits for anywhere near the period originally projected.

1 One Big Beautiful Bill Act (OBBBA), signed into law in July 2025; updated results are summarized in the Office of the Chief Actuary August 5 Wyden letter.

This paper was drafted by members of the Social Security Committee: Sam Gutterman—Chairperson, MAAA, FCA, FCAS, FSA; Janet Barr, MAAA, ASA, EA; Iris Kazin, MAAA, EA, FCA, FSA; Amy Kemp, MAAA, EA, ASA; Eric Klieber, MAAA, EA, FSA; Piotr Krekora, MAAA, ASA, EA, FCA; Jerry Mingione, MAAA, FCA, FSA; Brian Murphy, MAAA, EA, FCA, FSA; John Nylander, MAAA, FSA; Neela Ranade, MAAA, FSA; Larry Rubin, MAAA, FCA, FSA; Jeffery Rykhus, MAAA, FSA; Joan Weiss, MAAA, FSA.

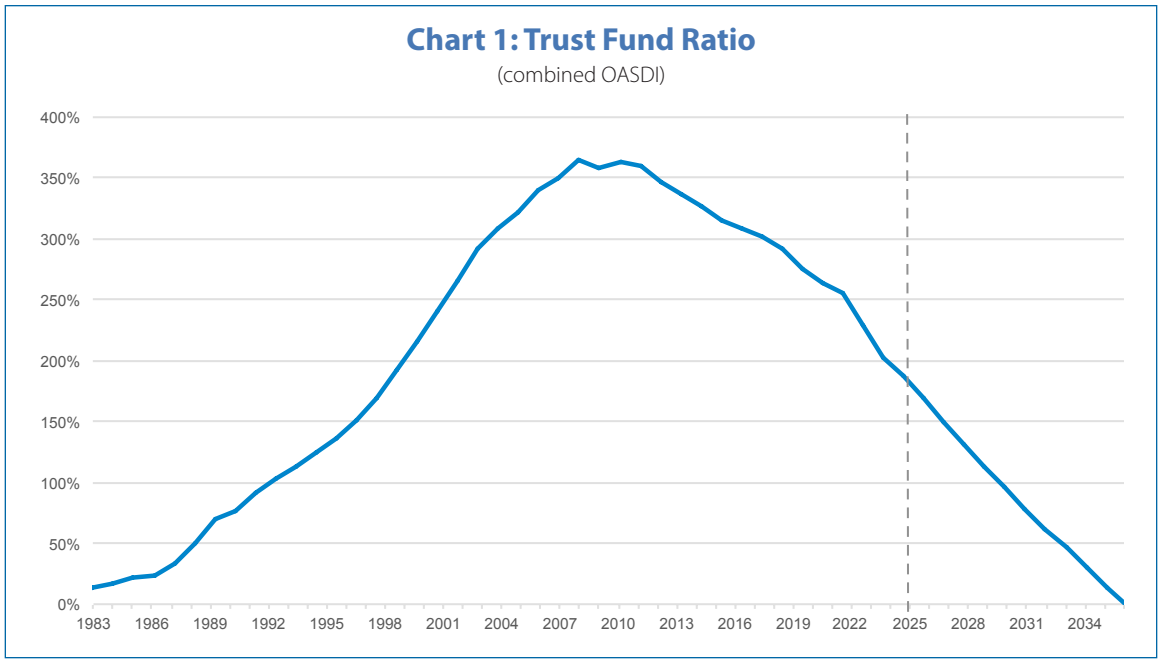
The Committee gratefully acknowledges the contributions of Gordon Enderle, MAAA, FSA.

The trustees now project that full scheduled benefits will only be payable until 2034—the year the combined OASDI trust fund reserves are projected to be depleted. Benefits will continue to be payable after reserve depletion, but not in full unless legislative action is taken.

The projected date at which the system will no longer be able to pay full scheduled benefits is determined based on an analysis of projected income and benefits under a complex set of demographic and economic assumptions. It is important to recognize that actual future results for Social Security may diverge significantly from those projected in the current Trustees Report due to future economic and demographic experience that may differ from that anticipated.

Because of this uncertainty, results under three sets of deterministic assumptions, as well as stochastic projections, are shown in the Trustees Reports. In addition to an intermediate set of assumptions that reflect the trustees' best estimates of future experience, low- and high-cost results are also presented based on a range of possible future experience. Importantly, the trustees note that actual future results are unlikely to be as extreme as those portrayed by their low- or high-cost projections.

Chart 1 summarizes the historical and projected trust fund ratios (trust fund balance at the beginning of the year divided by annual system costs) for the combined OASDI programs, based on the intermediate assumption set.



Source: 2025 Trustees Report, Table IV.B4

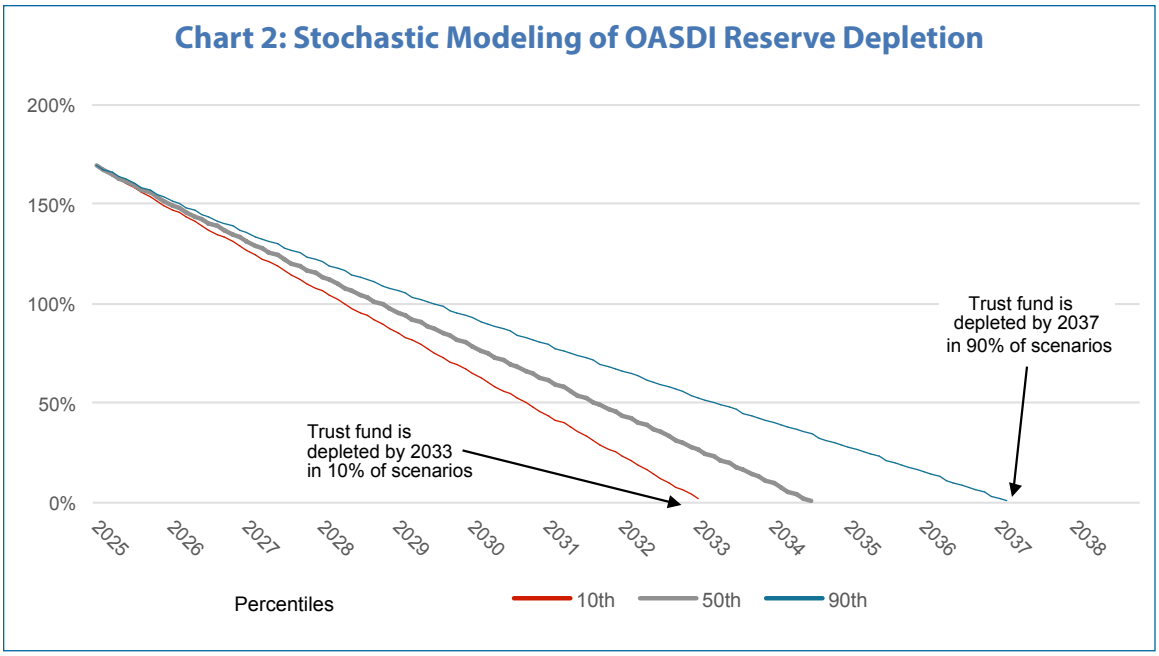
The Trustees Report's trajectory of decline in the level of trust fund balances (OASI, DI, and combined OASDI) is shown in Table 1. The rate of decline accelerates beginning in 2025. If Congress does not act, the OASI trust fund will not be able to pay fully scheduled benefits in 2033. When viewed on a combined basis, Social Security benefits will not be able to fully pay the scheduled benefits in 2034. Although most of this policy paper examines the OASDI system as a whole, Table 1 illustrates the favorable results for the DI trust if viewed in isolation (see A Word on Disability) and the more adverse financial trajectory for OASI when viewed separately.

Table 1: Historical and Projected Changes in Trust Fund Balances by Calendar Year ($billions)

	OASI	DI	OASDI
2020	7	4	11
2021	–59	3	–56
2022	–41	19	–22
2023	–70	29	–41
2024	–103	36	–67
2025	–209	28	–181
2026	–213	28	–185
2027	–245	30	–215
2028	–280	39	–242
2029	–318	48	–270
2030	–359	57	–302
2031	–400	64	–336
2032	–442	70	–372
2033	–481*	76	–405

*If the two trust funds are not combined, this amount cannot be paid
Source: 2025 Trustees Report, Tables IV.A1, IV.A2, IV.A3

The deterministic projection indicates that the combined OASDI trust funds will be depleted in the third quarter of 2034, almost a year earlier than indicated in last year's report. Chart 2 shows the trust fund depletion dates based on a range of projected stochastic scenarios.



Source: 2025 Trustees Report, Figure VI.E2

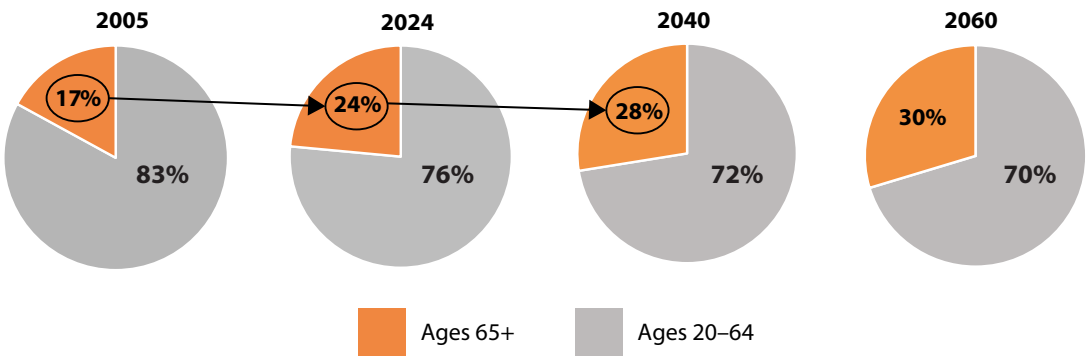
An 80% range of probability for depletion years is indicated in Chart 2 by the leftmost and rightmost lines. In other words, in 80% of the scenarios generated by the stochastic model, the combined OASDI trust fund reserves are depleted sometime between 2033 and 2037. This type of analysis reveals the inherent uncertainty in projecting a complex system such as OASDI. Also, it indicates that the system's funding imbalance is unlikely to be corrected without legislative action, even under a highly favorable future scenario. Although it suggests that Congress could potentially have a couple of years after 2034 before facing trust fund depletion and drastic benefit cuts, it is also possible that such action will be needed by 2033. More information on stochastic projections can be found in the Academy issue brief, *A Guide to the Use of Stochastic Models in Analyzing Social Security*.

The projected imbalance in the system stems from both demographic and economic factors (particularly wages). This policy paper will first examine demographic factors and then economic factors. A more thorough discussion of both sets of factors can be found in the Academy's issue brief, *Assumptions Used to Evaluate Social Security's Conditions*.

Demographic Factors

Chart 3 shows a comparison of the historical, current, and projected populations of "working-age" adults to adults aged 65 and over in the United States. In rough terms, the population in the 20-64 age group comprises the workforce paying taxes into the Social Security system to provide benefits to those in the 65+ age group, although disability, early retirement, survivor, and dependent benefits are also provided to those younger than age 65.

Chart 3: Comparison of Working-Age Adults to Adults Age 65+



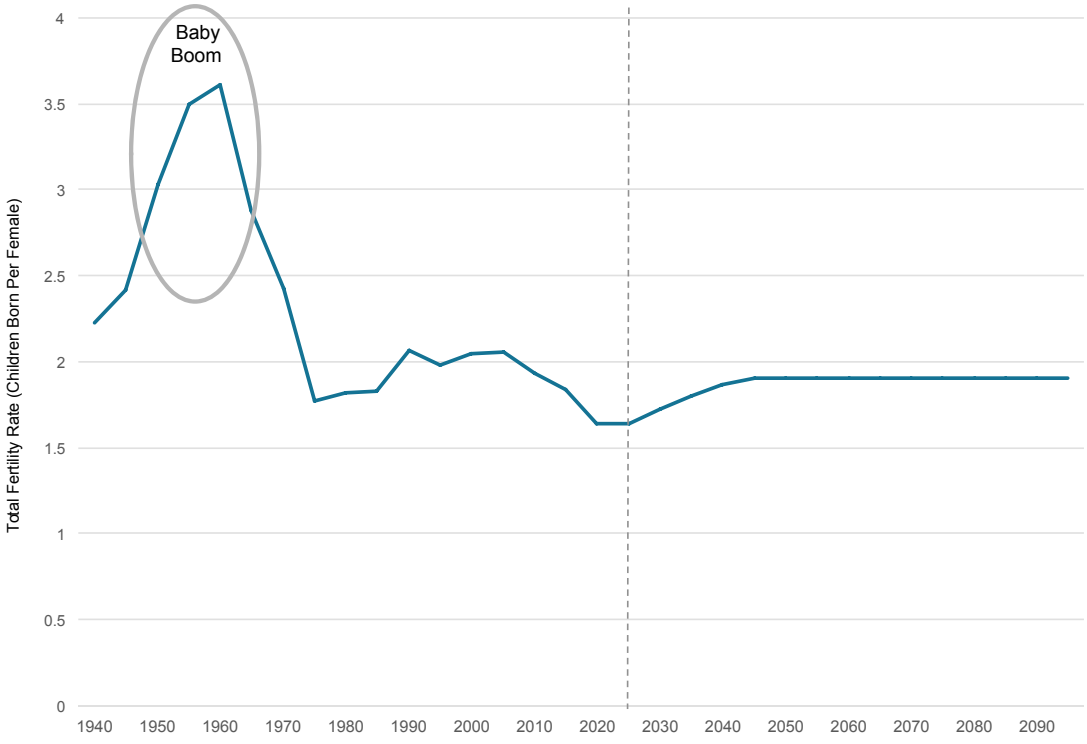
Source: 2025 Trustees Report, Table V.A3

The arrows in Chart 3 indicate the demographic effect of the retirement of the baby boom generation.

A significant aging trend is expected to continue over the next 10 to 15 years, resulting in a decline in the percentage of working-age individuals within the overall population. The relatively smaller group of workers is not expected to provide sufficient income to the system to pay all projected benefits to a relatively larger beneficiary group.

The aging of the U.S. population has been long anticipated. The "baby boom" period, from 1946 to 1964, was followed by a decline in the fertility rate, resulting in substantially smaller generations of succeeding workers (see Chart 4). The total fertility rate for the last five years averaged 1.64 children per woman, which is significantly below the natural replacement rate of approximately 2.1 children per woman. According to the 2025 Trustees Report, the fertility rate is projected to increase gradually to 1.9 by 2050. The ultimate fertility rate assumption of 1.9 children per woman is the same as that used in the 2024 Trustees Report; however, it was previously assumed to reach that level in 2040, 10 years earlier than assumed in the 2025 Trustees Report.

Chart 4: Fertility Rates

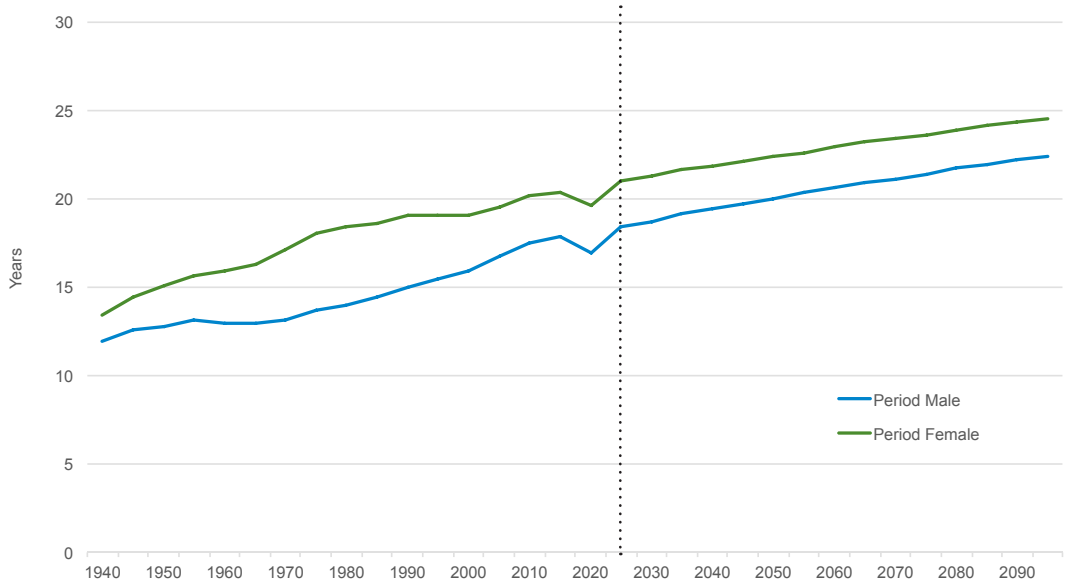


Source: 2025 Trustees Report, Table V.A1

Note that this long-range expectation remains higher than most other U.S. demographic population projections, which range from 1.6 children per woman (as projected by the Congressional Budget Office and the United Nations Population Division) in 2054 to 1.52 (as projected by the United States Census Bureau) in 2123. If these projections prove accurate and all else remains equal, the total U.S. population would begin to decrease prior to the end of this century.

The average life expectancy at age 65 has increased significantly over the life of the program and is projected to continue increasing (see Chart 5). Although there was a temporary interruption to the life expectancy trend in the early 2020s due to the COVID-19 pandemic, life expectancy is projected to continue its gradual upward trend in the future.

Chart 5: Life Expectancy From Age 65*



* These represent period life expectancies, which are calculated based on mortality rates experienced at ages 65 and above in a given year. Life expectancies can also be determined on a cohort basis, which reflect mortality rates projected beyond the current year. Both methods produce similar trends.

Source: 2025 Trustees Report, Table V.A4 (period basis)

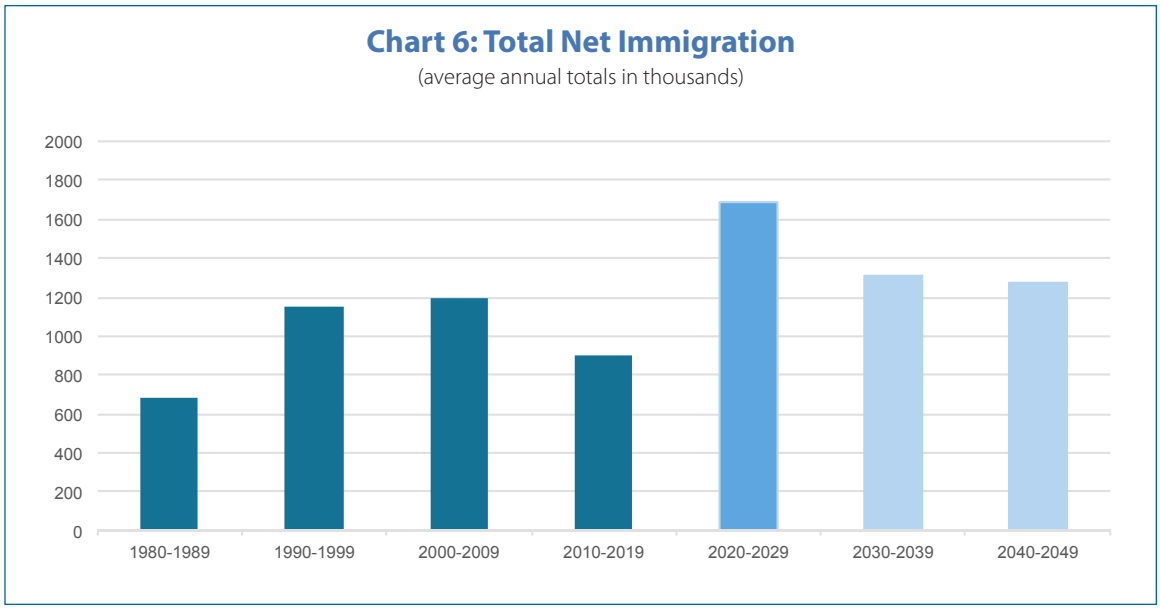
In the United States, the natural population increase (i.e., births minus deaths[2]) continues, although, barring a dramatic reduction in mortality or increase in fertility, it will likely turn negative at some point in the future. Demographic projections from the Congressional Budget Office and the U.S. Census Bureau indicate that the natural population increase will turn negative around the mid-2030s.[3] Fertility and mortality trends will, in combination, put stress on Social Security financing.

Immigration is a significant demographic factor that impacts Social Security financing (see Chart 6). Immigration supplements births in providing a source of new workers to pay payroll taxes that support Social Security benefit payments. Social Security's financial status improves with more net immigration[4] because the immigrant population is largely composed of people at younger ages, thereby increasing the number of covered workers without increasing the number of beneficiaries until much later. More information on immigration impacts to Social Security finances can be found in the Academy policy paper—*Immigration and Social Security*.

2 In 2024, there were approximately 3.6 million births and 3.0 million deaths.

3 The Congressional Budget Office projects the natural population decrease to begin in 2033; the U.S. Census Bureau projects it to begin in 2038.

4 Net immigrants equal the number of immigrants entering the country less the number of emigrants leaving the country.



Source: 2025 Trustees Report, Table V.A2

Although the total number of net immigrants decreased significantly from 2018 to 2021 (averaging about 0.6 million per year), according to the 2025 Trustees Report, the net immigrant count rebounded strongly from 2022 to 2024 (averaging 2.6 million per year). Net immigration is projected to decline to about 1.3 million by 2030, according to the Trustees Report.

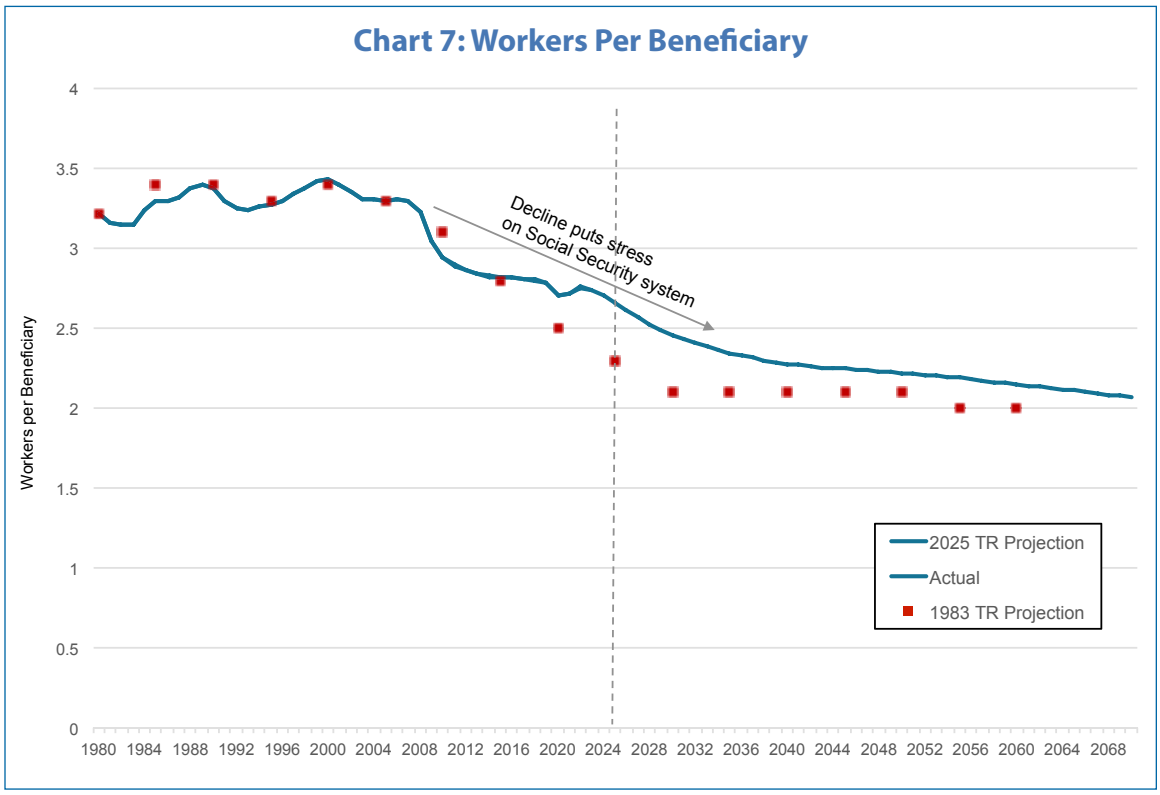
However, since the trustees' assumptions were developed near the end of 2024, the new administration has implemented increased constraints on the number of new immigrants in 2025. While the trustees "assumed that the recent increase in border crossings will continue to affect temporary or unlawfully present immigration through 2025," it appears that this border constraint will likely result in a significantly smaller number of temporary or unlawfully present immigrants in 2025 and possibly beyond. If this turns out to be the case, since immigrants have a net positive financial effect on the trust funds, the time until trust fund depletion may decline further.

The number of lawful permanent resident immigrants[5] each year has been relatively constant. In contrast, the number of temporary or unlawfully present immigrants has been quite variable, fluctuating with the relative strength of the U.S. economy, as well as political and environmental factors. The temporary or unlawfully present immigration counts in the 2025 Trustees Report were estimated to be significantly higher during the period between 2022 and 2025 compared to the levels indicated in the 2024 Trustees Report. This estimated increase was due to the recent increase in border crossings reported by the Department of Homeland Security (DHS) at the time

5 Temporary or unlawfully present immigrants consist of those who are undocumented, as well as foreign workers and students with temporary visas. Note that undocumented immigrants do not have Social Security numbers and are not authorized either to work or to receive Social Security benefits. Nevertheless, a large majority of undocumented immigrants indeed work, and many pay Social Security taxes (for example, by using fake or borrowed Social Security numbers). Since these workers will generally never receive benefits, their taxes can be considered a benefit to the system.

the 2025 Trustees Report estimates were made.[6] In the future, temporary or unlawfully present immigrants are projected to represent roughly 40% of the total net immigrant count, with this proportion diminishing somewhat over time.

A key indicator of the impact of demographic shifts and increased longevity is the measurement of the ratio of projected workers to beneficiaries. Chart 7 shows these ratios starting in 1980. The long-expected decline in this ratio has put significant stress on the finances of the Social Security system. The red squares in Chart 7 show ratios resulting from the intermediate projections in the 1983 Trustees Report.



Sources: 2025 Trustees Report, Table IV.B3, and 1983 Trustees Report, Table 28, Alternative II-B assumptions

The projection in the 1983 Trustees Report indicated that in 2025 there would be 2.3 covered workers per beneficiary, with the ratio declining thereafter, bottoming out at 2.0 around 2055. Both the actual and projected experience in the 2025 Trustees Report are more favorable than those in the 1983 projections, with the current ratio somewhat higher at 2.7, declining thereafter to ratios of 2.3 in 2040, then 2.0 in 2080.

6 The number of lawful permanent resident immigrants has generally remained in the 700,000 to 900,000 per year range over the period 2005–2024, except during the COVID-19 pandemic, when it was lower. Over this 20-year period, it averaged about 800,000. The number of temporary or unlawfully present resident immigrants ranged from -700,000 to +2,000,000 per year over that same period, with an average of about 400,000 per year. The net counts of temporary or unlawfully present immigrants are estimated in the Trustees Report to be 1.8 million in 2024 and 1.2 million in 2025.

Fewer covered workers per beneficiary means that fewer people will be paying payroll taxes to support each beneficiary. Therefore, an increased financial burden will be imposed on tax-paying workers to continue providing currently scheduled benefits. Higher taxes, lower benefits, or a combination of both will be needed to continue providing currently scheduled benefits to Social Security beneficiaries.

The Effects of Alternative Demographic Assumptions

In addition to evaluating Social Security under sets of alternative assumptions and a stochastic model, the trustees assess how each of the fertility, mortality, and immigration assumptions separately affects its finances. The 2025 Trustees Report illustrates the impact of variations in these demographic assumptions on the long-term financial health of the system. Due to the time it takes to affect the overall Social Security finances, none of the indicated variations result in a change in the trust fund depletion year. However, it suggests that the alternative assumptions, if realized, can make a significant difference in the 75-year actuarial balance. Table 2 summarizes the results of this evaluation.

Table 2: Adjustments to Demographic Assumptions

	Low-Cost Assumption	Intermediate Assumption	High-Cost Assumption
Fertility Rate			
Children per woman (ultimate rate from 2050)	2.1	1.9	1.6
75-year actuarial deficit	3.40%	3.82%	4.49%
Projected year of trust fund depletion	2034	2034	2034
Average Annual Mortality Rate Reduction			
Mortality reduction (average for 2034-2099)	0.28%	0.73%	1.21%
75-year actuarial deficit	3.10%	3.82%	4.61%
Projected year of trust fund depletion	2034	2034	2034
Total Net Immigration			
Net annual immigration (average for 2035-2099)	1,696,000	1,253,000	833,000
75-year actuarial deficit	3.40%	3.82%	4.28%
Projected year of trust fund depletion	2034	2034	2034

Other assumptions are intermediate
Source: 2025 Trustees Report, Tables VI.D1, VI.D2, VI.D3

In contrast to its significant long-term effect, the short-term impact of fertility variations is clear—workforce participants for the next two decades are already born, and future fertility rates will not change their number. Similarly, any increase or decrease in expected lifetimes, although material to the financial position of Social Security over the long term, will take many years to ripple through the system and will not alter the system's projected outlook for the next decade. While the number of immigrants is meaningful to the system over both the shorter and longer terms, according to the alternative assumptions included in the 2025 Trustees Report a significant increase in the level of annual net immigration will be insufficient to delay the trust fund's depletion date.

Economic Factors

While Social Security's projected imbalance has been driven to a great extent by demographic changes, economic factors also have a significant impact on system finances. The following focuses on two of these factors—wage growth, which directly relates to the level of payroll tax income, and trust fund investment returns.

Taxable Payroll

Increases in taxable payroll can help mitigate the impact of the decline in the ratio of workers to beneficiaries. Unfortunately, recent increases in taxable payroll have generally fallen below expectations, thereby exacerbating the demographic problem.

Three distinct macroeconomic trends have acted to suppress the growth in taxable payroll reflected under the Social Security system:

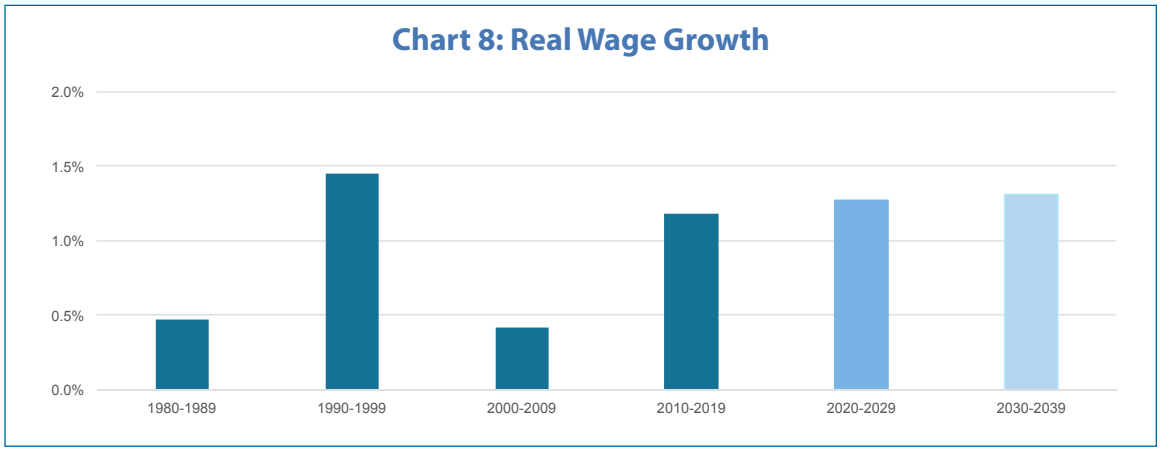
- ***Declining labor share of GDP.*** Labor and capital receive portions of the income resulting from the economy's production of goods and services. The shares going to each sector may shift over time for several reasons. Labor's share has decreased in recent decades, from an average of 63.2% in the 1970s to 59.4% after 2010.[7] This decline in labor compensation has had a dampening effect on wage growth, and thus the payroll subject to Social Security taxation.
- ***An increasing portion of compensation shifted to fund employee benefits.*** Employer-paid premiums for health insurance, which are not subject to Social Security payroll taxes, have grown faster than wages in recent decades, as health care costs have expanded from 10.1% of GDP in the 1980s to 17.7% over the last 10 years.[8] The expansion of health care costs diverted an increasing portion of employee compensation from taxable wages, further suppressing the growth of taxable payroll.[9]
- ***Increased income disparity.*** The tendency toward greater disparity in the allocation of labor compensation in recent decades had a further dampening effect on the growth of Social Security taxable payroll. Increased pay disparity results in a greater portion of total compensation exceeding the taxable wage base and a lesser portion falling below it. This has reduced the portion of wages subject to Social Security taxation. (Note that amounts over the wage base are still taxed for Medicare purposes.) The impact of this increased disparity is evident in a decline in the percentage of total labor compensation below the wage base, from 89.6% in 1983 to an average of 82.5% over the last decade.

7 Federal Reserve Economic Data.

8 National Health Expenditure Accounts; Centers for Medicare & Medicaid Services.

9 *Effects of Employer-Sponsored Health Insurance Costs on Social Security Taxable Wages*; Social Security Bulletin; Volume 73, 2013.

Chart 8 summarizes the level of real wage growth (the increase in nominal wages minus inflation) since the 1980s, as well as the system's projections through 2039. Annual growth in average real wages has averaged less than 0.9% over the last 20 years. This contrasts with the intermediate assumptions in the 1983 Trustees Report, which projected 1.5% annual real wage growth over that period.

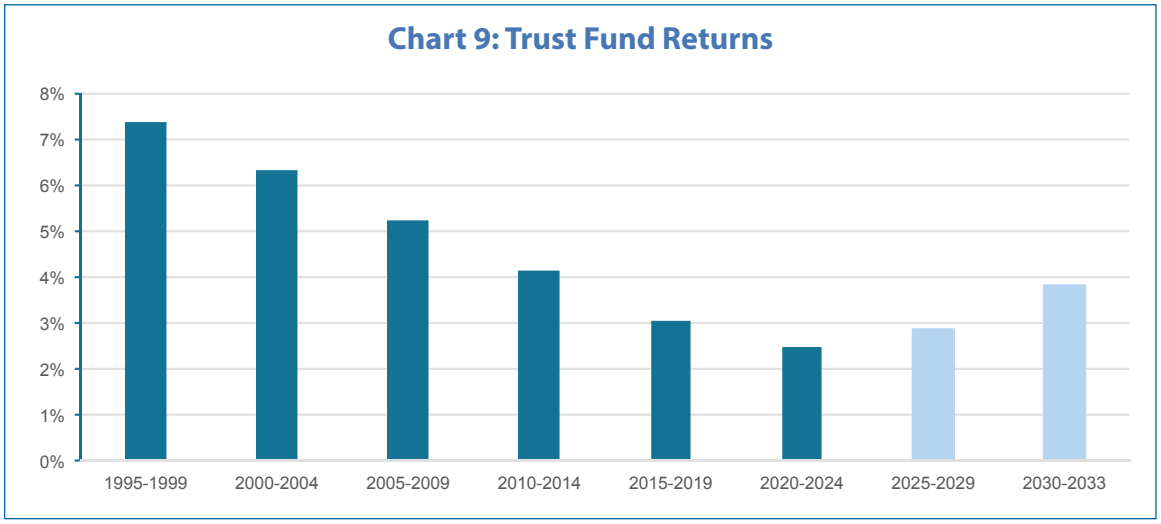


Source: 2025 Trustees Report, Table V.B1

Trust Fund Returns

OASDI trust fund reserves are held in special U.S. Treasury securities, issued each year as needed to invest any surplus of income over outgo (or to invest proceeds from maturing securities). The interest rate on these securities at issue is set by law as the average market yield on marketable interest-bearing securities of the U.S. federal government with a maturity of four years or more. Yields on fixed-income securities have been on a downward trend over the past four decades, driving down trust fund returns.

Chart 9 shows the rate of return on the trust fund portfolio assets (both realized and projected) over five-year periods beginning in 1995.



Source: 2025 Trustees Report, Tables IV.A3 and VI.A3

The 1983 Trustees Report assumed 6.1% nominal interest rates and 4% inflation for the period after 1990, which implies a 2.1% real interest rate. In contrast, realized inflation has averaged 2.5% in recent years (1.5% below the 1983 assumption). Adjusted for the lower inflation experience, the 1983 assumption equates to a 4.6% nominal interest rate assumption. Chart 9 indicates that actual portfolio returns were above those assumed in the years through 2009, before dropping significantly lower thereafter. Note that the level of trust fund assets peaked in the later low-return years, which implies that the reduced returns for the more recent years weighed more heavily. The average level of trust fund assets was $1.3 trillion from 1995 to 2009, then $2.8 trillion from 2010 to 2024.

Trust fund reserves, though currently sizable in dollar terms, represent only a small portion of the value of all future scheduled Social Security benefits. The system's expanding cash flow deficit implies that the trust fund will increasingly be drawn upon to pay program benefits. Thus, the impact of recent increases in bond yields will be limited, given that a depleting trust fund sees relatively limited new bond investments.

The Effect of Alternative Economic Assumptions

The projections of alternative real wage increase assumptions shown in the 2025 Trustees Report highlight the sensitivity of valuation results to the level of taxable payroll. A significant change in the rate of real wage increases (e.g., plus or minus 0.6%) would substantially shift the level of measured actuarial deficit (plus or minus 1.2%) and potentially even shift the projected trust fund depletion date by a year.

On the other hand, since the system is anticipated to be in liquidation rather than accumulation mode, variations in the projected rate of interest on new Treasury bonds have only a modest impact. A 50-basis-point variation in future interest rates translates to a relatively marginal impact on the level of measured actuarial deficit (0.2%), while the projected combined OASDI trust fund reserve depletion date in 2034 would be unchanged.

Table 3 summarizes the results of sensitivity calculations involving these two economic assumptions.

Table 3: Adjustments to Economic Assumptions

	Low-Cost Assumption	Intermediate Assumption	High-Cost Assumption
Real Wage Growth			
Ultimate growth rate (from 2034)	1.73%	1.13%	0.53%
Actuarial deficit	2.64%	3.82%	5.03%
Projected year of trust fund depletion	2035	2034	2033
Real Interest Rates			
Ultimate rate (from 2042)	2.8%	2.3%	1.8%
Actuarial deficit	3.64%	3.82%	4.01%
Projected year of trust fund depletion	2034	2034	2034

Other assumptions are intermediate
Source: 2025 Trustees Report, Tables VI.D4, VI.D6

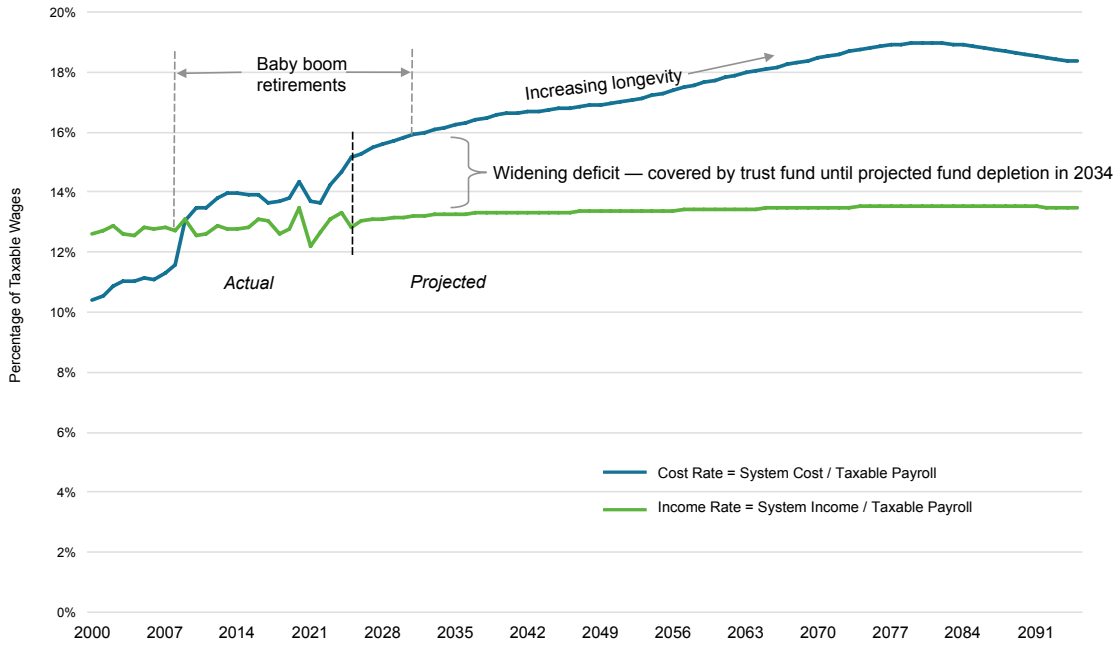
System Finances

Today's Social Security payroll tax rate (6.2% of earnings up to the wage base for both employees and employers; 12.4% for the self-employed) has been in place since 1990. During the period when the ratio of workers to beneficiaries was higher than today, this rate exceeded that needed to pay current benefits, thus allowing the system to build a significant reserve balance (reaching its peak at around $2.9 trillion over the 2017-2021 period) to help pay benefits after the anticipated wave of baby boomer retirements. As those retirements proceeded, starting in the 2010s, the number of workers per beneficiary decreased. Thus, the taxes paid by workers, along with other system income, have not kept pace with increases in benefit payments; the current tax rate has become insufficient to support the level of benefit payouts.

The resulting drawdown of the previously accumulated trust fund assets currently enables Social Security to pay the scheduled benefit amounts. Once reserves are depleted, projected tax revenue will be able to support roughly 80% of the projected scheduled benefits.

The trustees define the annual cost rate of the system as the projected cost of benefits divided by the projected taxable payroll. The historical and projected path of annual cost rates in Chart 10 illustrates how the demographics of the U.S. population affect Social Security finances.

Chart 10: Projected Annual Cost and Tax Income as a Percentage of Taxable Payroll



Note: Income excludes interest earnings on trust fund reserves.
Costs reflect scheduled benefits, not all of which may be payable, depending on the status of the trust.

Source: 2025 Trustees Report, Table IV.B1 (intermediate assumptions)

The cost rate is projected on a significant upward trend through 2027, as the retiring baby boom generation is replaced in the workplace by relatively smaller subsequent generations. During this period, the retiree/beneficiary population is projected to grow at a faster rate than the population of tax-paying workers. Later in the projection period, the cost rate continues to increase even after demographic trends stabilize, due to rising life expectancies and persistently low fertility rates.

Why Didn't the 1983 Social Security Reform Work Out as Expected?

- The 1983 amendments to the Social Security Act were intended to stabilize Social Security's financial status for the following 75 years. This reform package addressed the demographic imbalance that resulted from the baby boom and subsequent baby bust by increasing system income during the boomers' working years, thereby advance funding a portion of that generation's benefits in retirement. These changes were intended to reduce the financial burden on the successive generation, who would otherwise be fully responsible for paying the higher taxes necessary to provide benefits to the larger predecessor group.
- At that time, the trustees projected that all scheduled benefits would be payable for a period beyond the end of the 75-year projection period. That projection was based upon an array of demographic and economic assumptions, including the increased longevity of Americans and the significant drop in fertility after the baby boom generation.
- The population forecasts made in 1983 generally held up over time, while economic factors fell short of expectations. The intervening years saw a significant build-up of assets in the trust fund; however, the amounts accumulated did not reach the level necessary to fund the entirety of the boomers' excess benefits. So, while the original plan foresaw the trust fund lasting into the 2060s[10], it is now projected to be depleted in 2034, only partway through the baby boomers' retirement period.
- For the most part, the shortfall resulted from the growth of taxable payroll falling below expectations. In addition, portfolio return rates declined below expectations starting in the 2010s, coinciding with the peak in trust assets. These less favorable economic outcomes have resulted in a reserve depletion date that is now almost 30 years earlier than had been projected in 1983.

What Drives the System's Cash Flow Deficit?

- The system's benefit payment outflow is driven by the number of program beneficiaries, their level of benefits, and the annual inflation-based indexing of benefits.
- System income varies based on the number of employed workers and the level of their taxable pay. A small portion of system income also derives from the taxation of Social Security benefits.
- The comparison of benefit payment outflow to tax revenue is the key indicator of the Social Security system's financial health. As such, inflation, to the extent that it drives both the level of benefits and taxable pay, may not have a major impact on the program's financial health.
- Real wage growth is a strong driver of system income. Should it fall short of assumed levels, the system's cash flow drain will accelerate. For example, a 0.5% shortfall in annual wage growth compared to assumptions over the next decade would advance system insolvency by roughly a year.
- The ratio of workers to beneficiaries is also a key driver; any factor that acts to increase this ratio is beneficial. Such factors could include a higher level of workforce participation, lower unemployment, or increases in (covered) immigrant employment.
- Delayed retirements may also be considered helpful to the system, even if they result in higher ultimate benefits due to longer work records and delayed retirement credits.

10 In the 1983 Trustees Report, based on the Alternative II-B assumption set, there was a projected 54% trust fund ratio at the beginning of year 2060. This projection implied that the trust funds would be depleted during 2063, based on a roughly 14% annual rate of trust fund depletion for that period.

Methods of Restoring System Balance

Restoring balance to the Social Security system could involve raising taxes, changing benefits, or a combination of these two approaches. Focusing on taxes alone, Table 4 shows that under the intermediate assumption set, an immediate increase in the combined employee/employer tax rate to 16.05% of taxable payroll would be necessary to support all currently scheduled benefits over the next 75 years. Alternatively, an immediate 22.4% cut in benefits for all current and future beneficiaries would be necessary to balance the system over the next 75 years if taxes remain unchanged.

Table 4: Immediate Actions to Achieve Financial Balance

Immediate addition to the payroll tax rate (assuming no benefit changes)	3.65% tax rate addition[11]
Immediate benefit cut for all current and future beneficiaries (assuming no payroll tax increase)	22.4% benefit cut

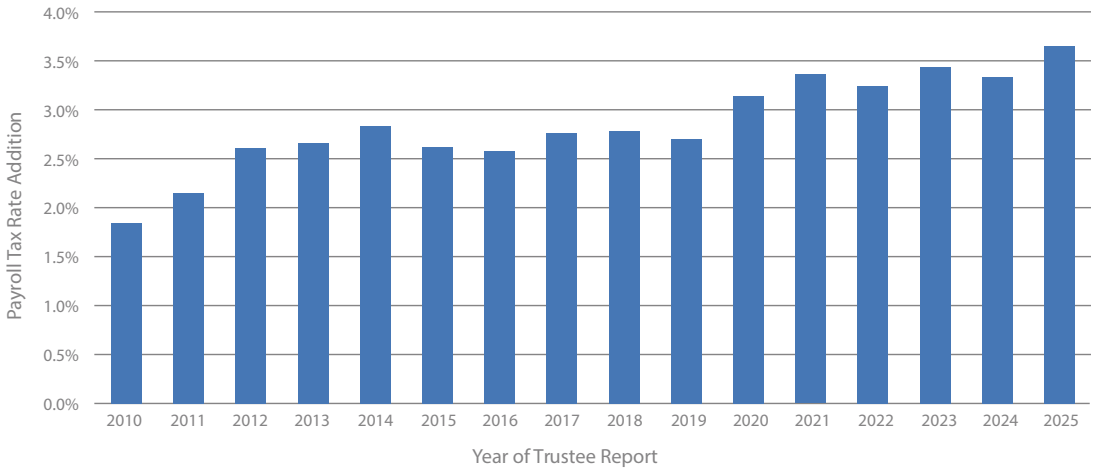
Note: Increases in payroll taxes would be shared equally by employees and employers, with resulting tax rates of 8.025% for both parties. Delaying a tax increase to 2034 would necessitate a larger increase (4.27%); similarly, delaying a benefit cut to 2034 entails a larger cut (25.8%).

Source: 2025 Trustees Report

Table 4 shows the impact of options needed to provide for scheduled benefits if only tax rates were to be increased or only benefits were to be reduced. In contrast, the trustees note that lawmakers have a broad range of policy options regarding changes to the system, many of which combine changes to tax rates and benefits. Changes in tax rates can be applied to all workers or a subset of workers. Likewise, benefit changes can be applied to all beneficiaries or a subset of beneficiaries.

Chart 11 shows that the measured increases in tax rates necessary to balance the system have risen materially since 2010.

Chart 11: Required Tax Rate Addition for System Balance Keeps Rising



11 The indicated tax increase is less than the 3.82% actuarial deficit because it is determined as the amount required to maintain solvency over the 75-year projection period presuming that there will be a zero trust fund balance at period end; in contrast, the actuarial deficit calculation presumes there will be a trust fund balance equal to one year's benefit payments.

Trustee reports for the past several years have recommended that lawmakers address the projected trust fund shortfalls in a timely manner, allowing for a gradual phase-in of necessary changes and providing workers, employers, and beneficiaries with time to adapt to the changes. As the trustees note, implementing modifications sooner rather than later would allow more generations to share in the needed revenue increases or benefit cuts.

System Solvency

The most commonly referenced measure of Social Security solvency is the projected timetable for trust fund depletion. Over the long term, the most widely referenced measure is the 75-year actuarial balance, which is based on a comparison of the present values of revenues and expenditures over a 75-year projection period, expressed as a percentage of taxable payroll. As mentioned earlier, the 75-year actuarial balance is now measured as an actuarial deficit of 3.82% of taxable payroll. Based on the trustees' definition, solvency is achieved under their intermediate assumptions when reserves, combined with projected system income, cover projected system payouts over the following 75 years, plus funds at the end of the 75th year equal to the outgo for the following year.

However, if the expected income coming into the Social Security trust funds in the 76th and subsequent years is less than the expected outgo in those years, the actuarial balance will deteriorate when remeasured in the following Trustees Report (and every year thereafter). In response to this concern, the Trustees' reports also reference a stronger benchmark—*sustainable solvency*—which is achieved when the projected trust fund ratio is positive throughout the following 75 years and is either stable or rising at the end of the period. Addressing a long-term perspective requires that the evaluation of any potential reform also includes an analysis of the financial impact beyond the 75-year projection period.

Chart 10 illustrates a widening actuarial deficit over most of the 75-year projection period under the intermediate assumptions. As noted earlier, much of this deficit is in fact theoretical, in the sense that the system is only authorized to pay benefits that can be funded by system income or assets.

A Word on Disability

The Social Security system also provides benefits to disabled workers and their dependents. The separate Disability Insurance trust fund is not expected to be depleted during the 75-year projection period (based on intermediate assumptions) and meets the short-term and long-term measures of financial adequacy and the criteria for sustainable solvency, as outlined in the 2025 Trustees Report—see Table 1.

The number of workers applying for disability benefits has decreased materially after peaking in 2010 following the 2008-2009 recession. In the 2025 Trustees Report, disability incidence is projected to increase from recent year levels in the range of 3 to 4 per thousand to an ultimate disability incidence rate of 4.6 per thousand by 2030. (All rates are calculated on an age-sex-adjusted basis.)

The trustees project that the percentage of total Social Security benefits paid due to disability will decrease from its 2024 level of 10.5% to 9.0% in 2034.

Technical Notes

- The Social Security system maintains two trust funds—one for old-age and survivor benefits (OASI trust fund) and one for disability benefits (DI trust fund). Each trust fund tracks revenue and expenses separately. When the DI trust fund was projected to be depleted in 2016, Congress authorized the OASI trust fund to transfer money to the DI trust fund to prevent this from happening. Thus, this policy paper generally discusses the Social Security system as a whole (OASI and DI combined), under the assumption that Congress will continue its historical practice to amend the law as needed to permit the transfer of funds between OASI and DI to stave off any shortfall in one trust fund or the other.
- Unless otherwise indicated, all numbers, charts, and tables are taken from the 2025 Trustees Report.
- Unless otherwise indicated, the term "benefits" includes retirement, disability, survivor, and dependent benefits and associated expenses.
- Unless otherwise indicated, the term "income" includes revenue from payroll taxes, taxes on OASDI benefits, and trust fund earnings.
- The intermediate assumption set reflects the trustees' best estimates of future experience. For this reason, most results quoted in the 2025 Trustees Report and this policy paper are based on the intermediate assumptions. The trustees also present results under low- and high-cost alternatives to provide a range of possible future experience. It should be noted that the 2025 Trustees Report states that actual future costs are unlikely to be as extreme as those portrayed by the low- or high-cost projections.
- The trustees also examine OASDI finances through 5,000 independently generated stochastic simulations, which reflect randomly assigned annual values for the key assumption parameters. These simulations create a distribution of projected outcomes and corresponding probabilities, indicating whether future outcomes will fall within or outside a specified range.

Social Security-Related Resources

The Academy has published several issue briefs on Social Security reform, including *Reforming Social Security Sooner Than Later*, which evaluates a range of public policy alternatives:

- Options for increasing system revenue include increasing tax rates on all workers and their employers, removing the cap on taxable wages, and increasing tax rates for high-wage earners.
- Options for reducing system benefits include lowering benefits for higher-income retirees, gradually increasing the full retirement age to reflect longer life expectancy, and modifying the inflation index used to adjust benefits annually. Note that if benefit decreases are considered, it is appropriate to incorporate a long phase-in period to provide workers, retirees, and their dependents sufficient time to plan for potentially lower future benefits.

They include:

Public Sector Workers Not Covered by Social Security (September 2025)

Retirement and Gig Workers (September 2025)

Significance of the Social Security Trust Fund (August 2025)

Highlights from the 2025 Social Security Trustees Report (June 2025)

Social Security and the Financially Disadvantaged (June 2025)

Immigration and Social Security (September 2024)

Updated Issue Brief Examines Individual Equity and Social Adequacy in Social Security Reforms (April 2024)

Social Security and Financially Disadvantaged Groups (November 2023)

Reforming Social Security Sooner Rather than Later (October 2023)

Social Security Assumptions (September 2023)
Raising the Retirement Age for Social Security (February 2022)
Individual Equity and Social Adequacy in The U.S. Social Security System (March 2021)
Immigration and Social Security (November 2020)
Essential Elements: Securing Social Security (May 2020)
Social Security — Automatic Adjustments (May 2018)
Women and Social Security (May 2017)
Helping the 'Old-Old'—Possible Changes to Social Security to Address the Concerns of Older Americans (June 2016)
Quantitative Measures for Evaluating Social Security Reform Proposals (May 2014)
Social Security Reform Options: A Public Policy Monograph (March 2014)
A Guide to the Use of Stochastic Models in Analyzing Social Security (October 2005)

In addition, the *Social Security Challenge* provides an evaluation of how various packages of tax and benefit provisions can be combined to restore balance to the system.

The Annual Trustees Report and related Social Security Administration publications from the Office of the Chief Actuary of the Social Security Administration can be found *here*.