American Academy of Actuaries

Issue Brief

JULY 2024

An Actuarial Perspective on the 2024 Social Security Trustees Report

The 2024 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance (OASDI) Trust Funds *(2024 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. The 2024 Trustees Report has been updated to reflect emerging demographic and economic events and conditions.

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Highlights of the 2024 Trustees Report

- The combined Social Security trust fund reserves are projected to become depleted during 2035, one year later than was projected in last year's report.*
- If changes to Social Security are not implemented before 2035, only 83% of scheduled benefits will be payable, as trust funds are depleted that year. The payable percentage will decline to 73% by 2098.
- The long-range actuarial deficit in the 2024 Trustees Report decreased to 3.50% of taxable payroll from 3.61% of taxable payroll.
- The most recent projection is impacted by the anticipation of improved overall economic conditions over the next decade—in particular, an increase in projected real wage growth of about 2.5%—and a reduction in the assumed disabled worker incidence rate over the long term. Offsetting this to some extent, later in the projection period, a lower fertility rate is assumed.
- In addition, the system's financial status was affected by the shift in the last year of the valuation period (which adds a year of less favorable finances at the end of the 75-year projection period).

Implementing changes sooner rather than later would allow the changes needed to be smaller, with more generations to share in the needed revenue increases or reductions in scheduled benefits. Social Security plays a critical role in the lives of 68 million beneficiaries and 184 million covered workers and their families in 2024—with informed discussion, creative thinking, and timely legislative action, Social Security can continue to protect future generations.

OASDI Trust Funds

	2024	2023
Projected reserve depletion date	2035	2034
Percentage of benefits payable at depletion date	83%	80%
Percentage of benefits payable in 75th year	73%	74%
75-year actuarial deficit (as % of taxable payroll)	3.50%	3.61%

* This assumes that the OASI and DI trust fund monies can be reallocated as needed, a practice that has been authorized by Congress in the past. Unless otherwise specified, reference to "trust funds" refer to the OASI and DI trust funds on a combined basis.

The purpose of this issue brief is to provide an actuarial perspective on the 2024 Trustees Report.

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

i. Given the continued low level of the total fertility rate (TFR) in recent years, the trustees have revised the ultimate TFR from 2.0 in the 2023 Trustees Report to 1.9 children per woman reached in 2040 in the 2024 Trustees Report. This change gradually reduces the number of workers supporting Social Security and contributes to the lower percentage of benefits payable in the 75th year.

ii. With the continued low levels of applications for and awards of disability benefits, the trustees have reduced the assumed ultimate disabled worker incidence rate from 4.8 to 4.5 per thousand exposed. This change reduces the cost of disability benefits.

iii. Greater-than-anticipated economic growth results in a 2.5% bump in projected real wage increases, which in turn leads to additional projected payroll tax income for the Social Security system.

Social Security's Financial Status

The last substantial changes made to the Social Security system occurred in 1983. To support the then 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 OASDI trust funds than required to pay immediate benefits. At the end of 2023, the amount in the trust funds was $2.79 trillion. However, as has been known for many years, without some changes in Social Security this amount in concert with taxes and trust fund earnings will not support the scheduled level of benefits for anywhere near the period originally projected. The trustees now project that full benefits will only be payable until 2035—the date the combined OASDI trust fund reserves are projected to be depleted. Benefits will continue to be payable after that date 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 based on an analysis of projected income and benefits under a complex set of demographic and economic assumptions. Nevertheless, actual future results for Social Security may differ significantly from those projected in the current Trustees Report due to future experience that differs from that anticipated by the economic or demographic assumptions used to make the projections.

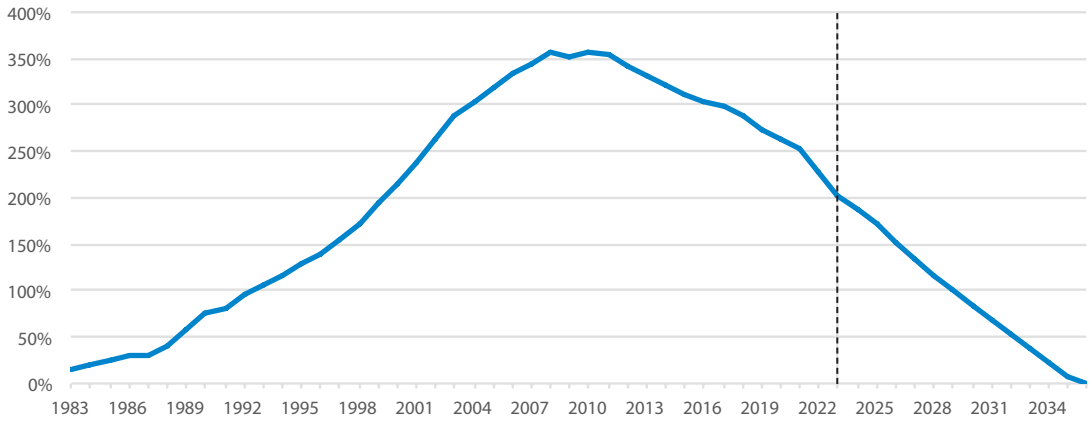
The Social Security Committee, which authored this issue brief, includes Sam Gutterman, MAAA, FSA, FCA, FCAS, HonFIA, CERA—*Chairperson*; Janet Barr, MAAA, ASA; Gordon Enderle, MAAA, FSA; Iris Kazin, MAAA, FSA, FCA, EA; Eric Klieber, MAAA, FSA; Mahrukh Mavalvala, MAAA, FSA, EA; Gerard Mingione, MAAA, FSA; Brian Murphy, MAAA, FSA, FCA, EA; John Nylander, MAAA, FSA; Larry Rubin, MAAA, FCA, FSA; Jeffery M. Rykhus, MAAA, FSA; and Joan Weiss, MAAA, FSA.

The committee gratefully acknowledges the contributions of Gerard Mingione for this issue brief.

Because of this uncertainty, 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-cost and high-cost results are also presented based on a range of possible future experience. Importantly, the trustees note that actual future costs are unlikely to be as extreme as those portrayed by their low-cost 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 the amount of annual system costs) for the combined OASDI programs, based on the intermediate assumption set.

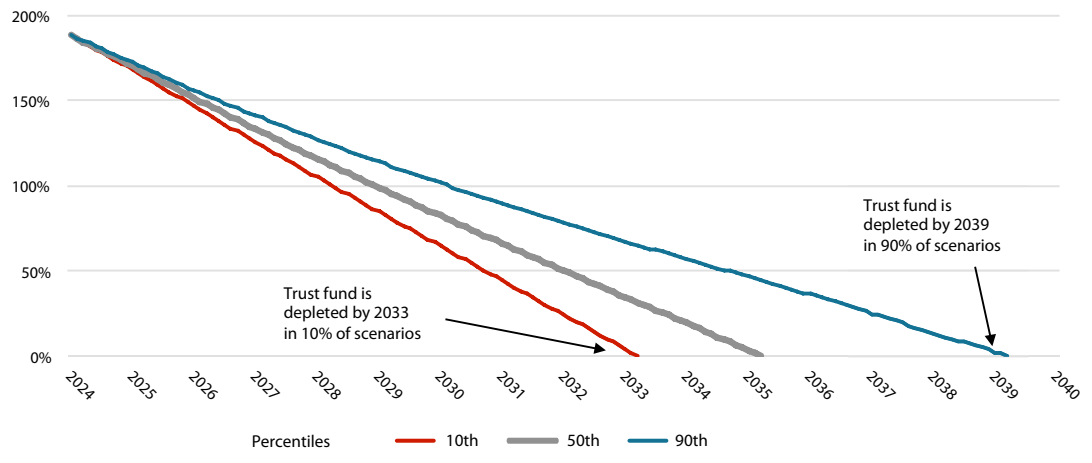
Chart 1: Trust Fund Ratio



Source: 2024 Trustees Report, Table IV.B4

The deterministic projection indicates that the trust funds will be depleted in 2035. Chart 2 shows the trust fund depletion dates based on a range of projected stochastic scenarios.

Chart 2: Stochastic Modeling of OASDI Reserve Depletion



Source: 2024 Trustees Report, Figure VI.E2

An 80% range of probability for depletion years is indicated in Chart 2 by the leftmost and rightmost lines—i.e., in 80% of the scenarios generated by the stochastic model, the combined OASDI trust fund reserves are depleted sometime between 2033 and 2039. This type of analysis shows the inherent uncertainty in projecting a complex system like OASDI, and also that the system's funding imbalance is unlikely to be corrected without legislative action under even the most favorable future scenario. Although it suggests that Congress could potentially have a couple of years after 2035 before facing trust fund depletion and drastic benefit cuts, it is also possible that such action is 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*.

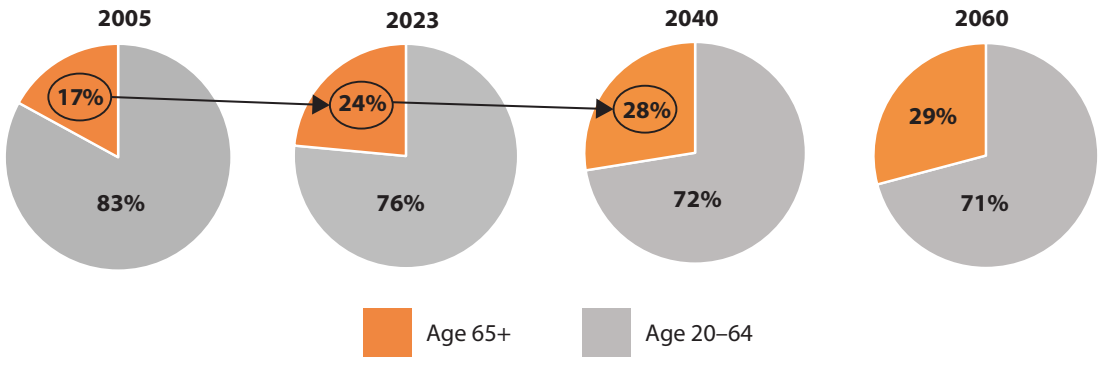
The projected imbalance in the system stems from both demographic and economic factors, particularly wages. This brief will first look at demographic factors and then at economic factors. A more thorough discussion of both sets of factors can be found in the Academy issue brief, *Social Security Assumptions*.

Demographic Factors

Chart 3 shows a comparison of the current and projected populations of working-age adults to adults aged 65 and over in the U.S. In rough terms, the population in the 20-64 age group is composed of workers paying taxes into the Social Security system to provide benefits to those in the age 65+ group.

There will be a significant aging trend over the next 10 to 15 years, resulting in a decline in contributing workers as a percentage of 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.

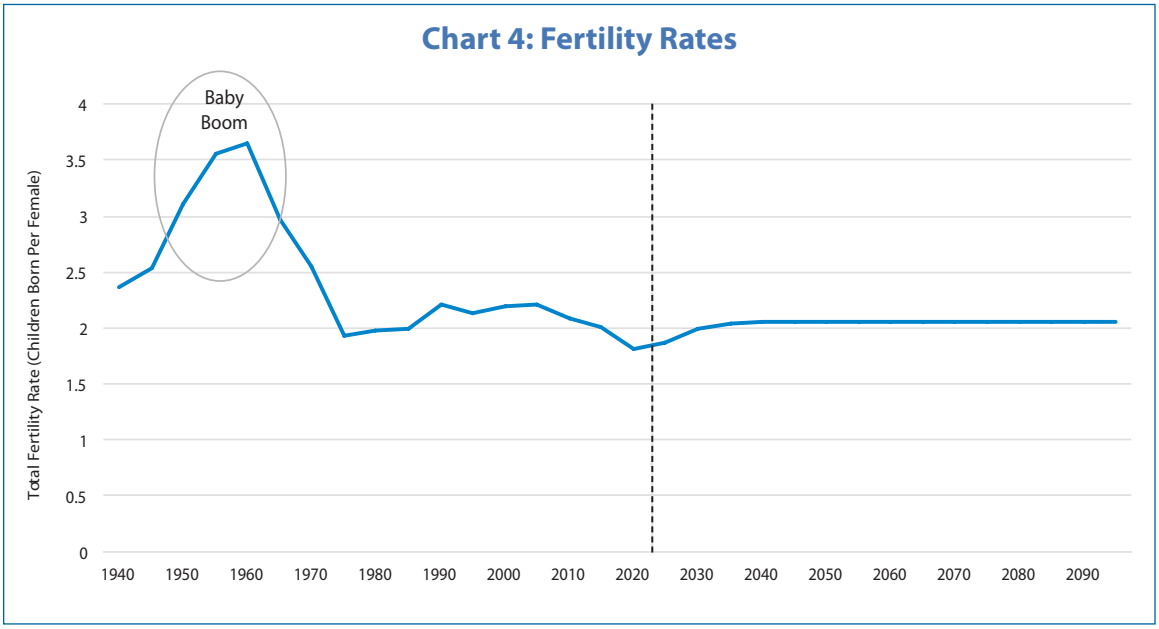
Chart 3: Comparison of Working-Age Adults to Adults Age 65+



Source: 2024 Trustees Report, Table V.A3

The aging of the U.S. population has been long anticipated. The "baby boom" of 1946–1964 was followed by a drop in the fertility rate, leading to materially smaller generations of succeeding workers (see Chart 4). The total fertility rate for the past four years has averaged about 1.65 children per woman, significantly lower than the natural replacement rate of 2.1. In the 2024 Trustees Report, the fertility rate is projected to gradually increase from recent levels to 1.9 by 2040. This ultimate fertility rate assumption was decreased from 2.0 used in prior reports.

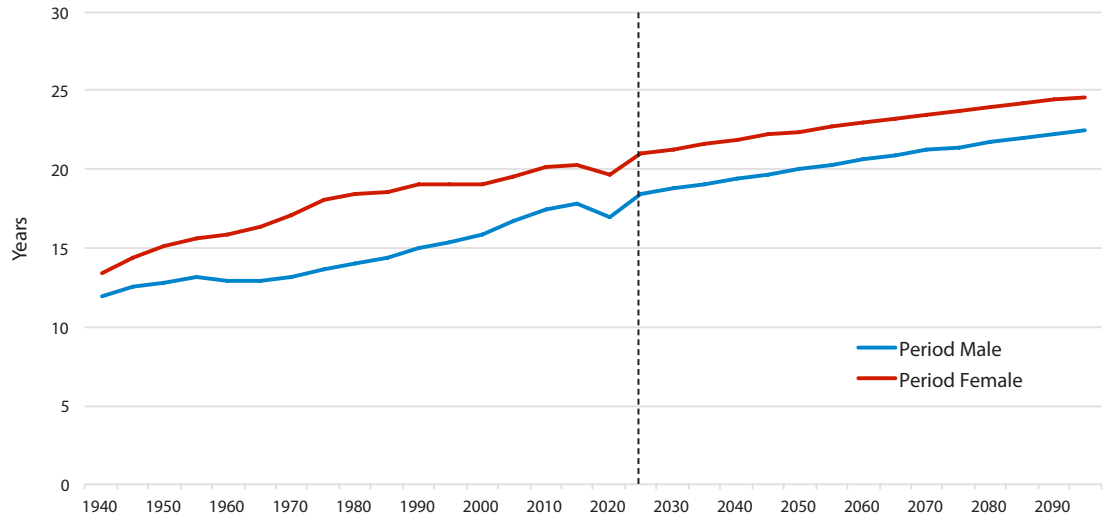
Note that this remains higher than many other long-range demographic population projections for the U.S., which range from 1.70 (the Congressional Budget Office and the United Nations Populations Bureau) to 1.52 (the U.S. Census Bureau). If the 1.52 level turns out to be accurate, with everything else remaining equal, the total U.S. population would begin decreasing prior to the end of the century.



Source: 2024 Trustees Report, Table V.A1

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

Chart 5: Life Expectancy From Age 65*



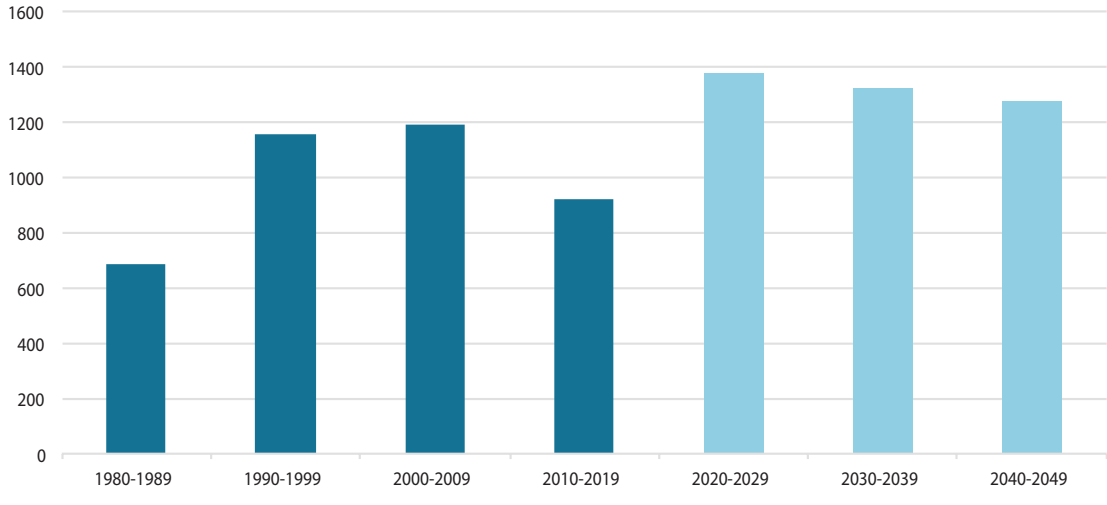
* These represent period life expectancies, which are calculated based on mortality rates experienced at ages 65 and above in a given year. Life expectancies may also be determined on a cohort basis, which reflect mortality rates projected beyond the current year.

Source: 2024 Trustees Report, Table V.A4 (period basis)

Immigration is an important demographic factor that affects Social Security financing (see Chart 6). Immigration supplements births (somewhat less than 3.6 million births per year in 2023) 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[1] 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.

Chart 6: Total Net Immigration

(average annual totals in thousands)



Source: 2024 Trustees Report, Table V.A2

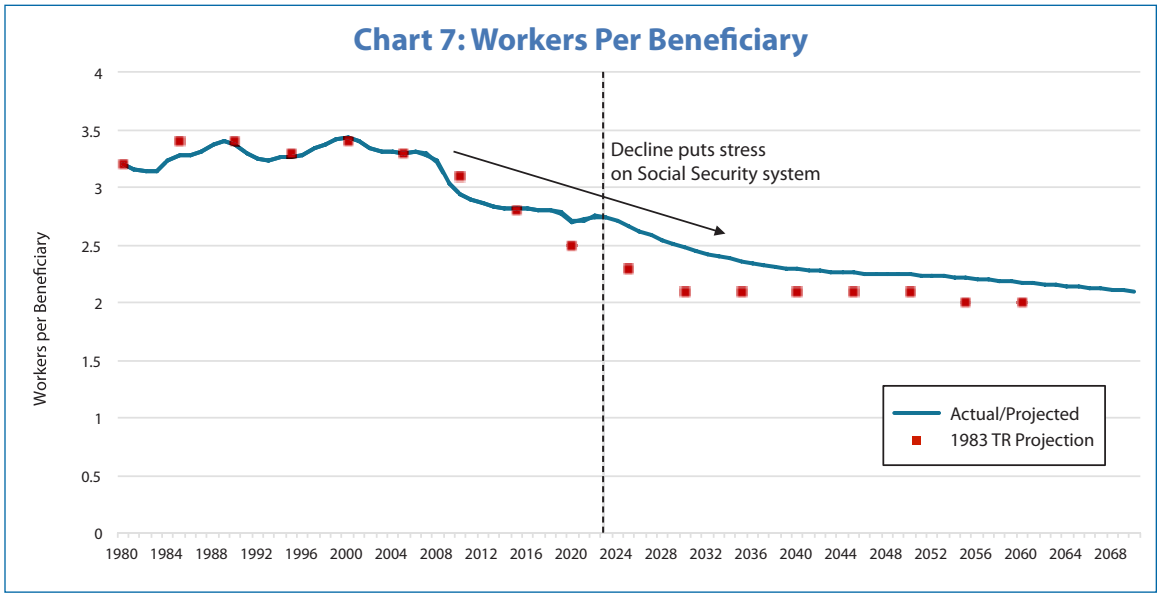
1 Net immigrants equal the number of immigrants less the number of emigrants. (See the upcoming Academy issue brief on immigration and Social Security.)

The natural population increase (i.e., births minus deaths) in the U.S. continues, although it is likely to turn negative some time in the future. Fertility and mortality trends combined will put stress on Social Security system financing, while immigration serves to overcome to some extent tight labor markets and the impacts of an aging population.

Although the total number of net immigrants decreased significantly in the period 2018 through 2021, the estimated or projected number of immigrants rebounds over the 2022–2026 period (averaging about 1.6 million per year), followed by a gradual decline to 1.3 million over the following 10 years.

The number of lawful permanent resident immigrants[2] each year has been relatively constant, while the number of other-than-lawful permanent resident immigrants has been quite variable, tending to shift with the relative strength of the U.S. economy, as well as political and environmental factors.[3] Going forward, other-than-lawful immigrants are projected to represent roughly 40% of the total net immigrant count, diminishing somewhat over time.

An important indicator of the impact of demographic shifts and increased longevity is to measure 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: 2024 Trustees Report, Table IV.B3 and 1983 Trustees Report, Table 28, Alternative II-B assumptions

2 Other-than-lawful permanent resident 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 to work nor to receive Social Security benefits. Nevertheless, a large majority of undocumented immigrants do work, and many pay Social Security taxes, sometimes in illegal ways (for example, by using fake or borrowed Social Security numbers). Because these workers will generally never receive benefits, their taxes can be considered a benefit to the system.

3 The number of lawful permanent resident immigrants has generally remained in the 700,000 to 900,000 per year range over the period 2005–2023, averaging 783,000. The number of other-than-lawful permanent resident immigrants ranged from -660,000 to +1,000,000 per year over that same period, at an average rate of 247,000 per year. The net count of other-than-lawful permanent resident immigrants is estimated to be 914,000 in 2023 and 891,000 in 2024.

The projection in the 1983 Trustees Report indicated that in 2023 there would be roughly 2.4 covered workers per beneficiary, with the ratio declining thereafter, bottoming out at 2.0 around 2055. Both actual and projected experience in the 2024 Trustees Report projection is more favorable, with the current ratio somewhat higher at 2.7, then declining to a ratio of about 2.2 in 2055.

Fewer covered workers per beneficiary means that fewer people will be paying payroll taxes to support each beneficiary. An increased financial burden would be imposed on taxpaying workers to continue providing currently scheduled benefits. This implies that either higher taxes, lower benefits, or a combination of the two will be needed to continue providing currently scheduled benefits to beneficiaries of the Social Security system.

The Effects of Alternative Demographic Assumptions

In addition to evaluating Social Security under sets of alternative assumptions and a stochastic model, the trustees evaluate how each of the fertility, mortality, and immigration assumptions separately affects its finances. The 2024 Trustees Report illustrates the impact of variations in these demographic assumptions on long-term system finances. Due to the time it takes to affect overall Social Security finances, none of the indicated variations results in a change in the trust fund depletion year. However, it does indicate that the alternative assumptions, if realized, can make a significant difference in the 75-year actuarial balance. Table 1 summarizes the results of this evaluation.

Table 1: Adjustments to Demographic Assumptions

	Low-Cost Assumption	Intermediate Assumption	High-Cost Assumption
Fertility Rate			
Children per woman (ultimate rate from 2040)	2.1	1.9	1.6
75-year actuarial deficit	3.05%	3.50%	4.20%
Projected year of trust fund depletion	2035	2035	2035
Average Annual Death Rate Reduction			
Mortality reduction (rate of improvement from 2033)	0.28%	0.73%	1.23%
75-year actuarial deficit	2.79%	3.50%	4.29%
Projected year of trust fund depletion	2035	2035	2035
Total Net Immigration			
Net annual immigration (average count 2034–2098)	1,683,000	1,244,000	829,000
75-year actuarial deficit	3.12%	3.50%	3.90%
Projected year of trust fund depletion	2035	2035	2035

Other assumptions are intermediate

Source: 2024 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. In addition, any increase or decrease in expected lifetimes, while also very material to the financial position of Social Security over the longer term, will also take many years to ripple through the system and will not change the system's projected outlook for the middle of the next decade. While immigration counts are meaningful to the system over the longer term, even a significant increase in the level of annual net immigration will be insufficient to push back the trust fund depletion date.

Economic Factors

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

Taxable Payroll

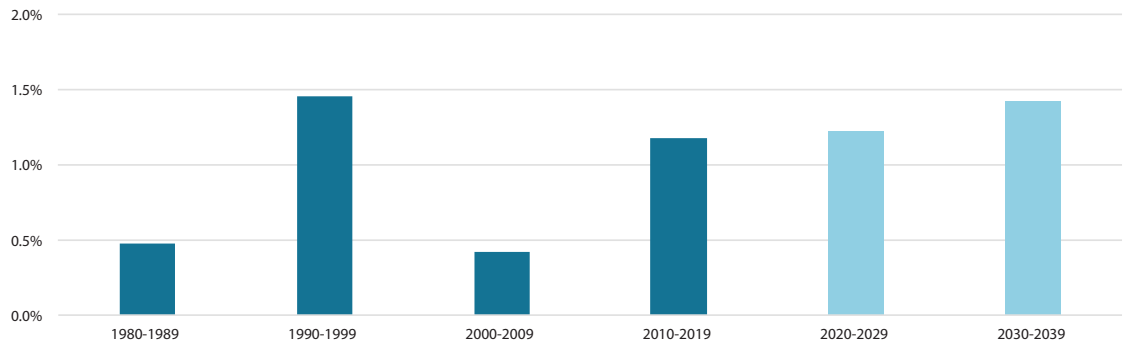
Increases in taxable payroll can help mitigate the impact of the decline in the ratio of workers to beneficiaries. Unfortunately, recent-year increases in taxable payroll have generally fallen below expectations, thus exacerbating the demographic problem.

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

- a reduction in the percentage of gross domestic product (GDP) going to labor compensation;
- an increasing portion of labor compensation being channeled to health care costs; and,
- an increasing disparity in compensation levels across the working population.

Chart 8 shows that the annual growth in average real wages has been less than 0.9% over the past 20 years. This contrasts with the intermediate assumptions in the 1983 Trustees Report that projected an average real wage growth of 1.5% over that period.

Chart 8: Real Wage Growth



Source: 2024 Trustees Report, Table V.B1

Labor and capital receive portions of the income resulting from the economy's production of goods and services. The shares going to each sector can 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.[4] This decline in labor compensation has had a dampening effect on wage growth, and thus the taxable payroll subject to Social Security taxation.

Employer-paid premiums for health insurance, not subject to Social Security payroll taxes, have grown faster than wages in recent decades, as health care costs have expanded from 10% of GDP in 1983 to 18% over 2018–2022.[5] The expansion of health care costs acted to divert an increasing portion of employee compensation from taxable wages, further suppressing the growth of taxable payroll.[6]

Further accentuating this trend is the tendency toward greater disparity in the allocation of labor compensation in recent decades. This results in a smaller portion of total compensation falling below the taxable wage base, and a greater portion escaping most Social Security taxation. (Note that amounts over the wage base are still taxed for Medicare purposes.) The impact of this increased disparity can be seen by the drop in the percentage of total labor compensation below the wage base, from 89.6% in 1983 to an average of 82.6% over the most recent 10 years.[7]

The projection for real wage growth remains relatively high for the next 10 years (1.7%), before declining thereafter (to 1.14%). If future increases in taxable payroll continue to fall below expectations, additional stress will be placed on the system as a result of lower-than-expected tax revenue. While lower wages also ultimately result in lower earned benefits, the payment of those reduced benefits is far in the future. Thus, the net result is a further degradation of the system's near-term cash flow balance.

Trust Fund Returns

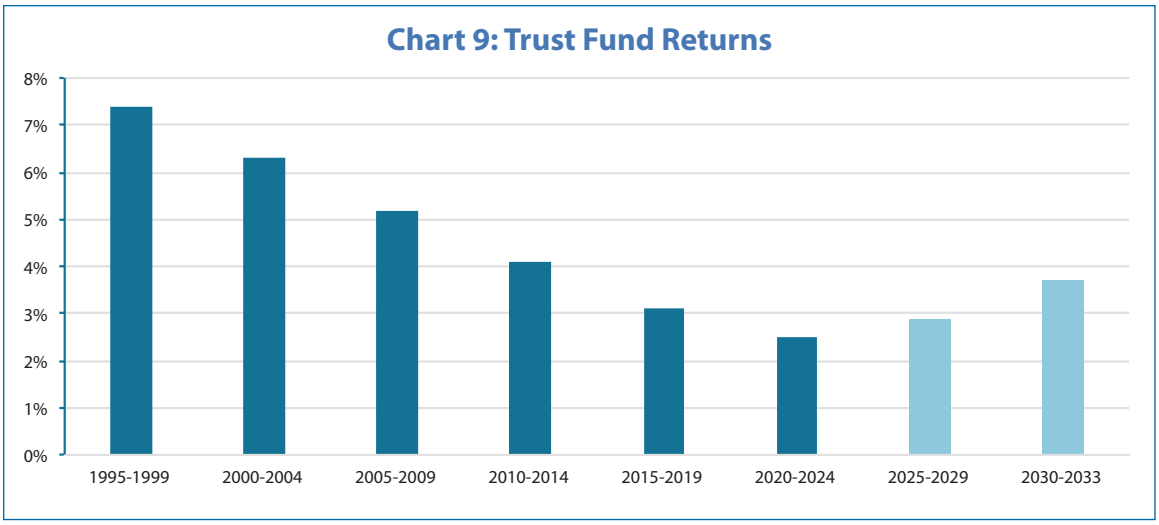
OASDI trust fund asset reserves consist entirely of special U.S. Treasury securities that are issued each year as needed to invest any surplus of income over outgo and to redeem maturing securities. The interest rate on these securities at issue is set by law as the average market yield on marketable interest-bearing securities of the U.S. federal government with four or more years to maturity. Yields on fixed-income securities have fallen over the past four decades, driving down trust fund returns. Chart 9 shows the rate of return on the trust fund portfolio assets (realized and projected) over five-year periods starting in 1995.

4 Federal Reserve Economic Data.

5 National Health Expenditure Accounts, CMS.gov.

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

7 "Long-Range Economic Assumptions for the 2024 Trustees Report," Table 6.2.



Source: 2024 Trustees Report, Table 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% percentage points in recent years (1.5% lower). Adjusting for lower inflation experience, the 1983 assumption equates to a 4.6% nominal interest rate assumption.

Chart 9 indicates that actual portfolio returns were greater than that assumed in the years through 2009, before dropping significantly lower thereafter. However, the level of trust fund assets peaked in those later low-return years, which implies that the reduced returns for the more recent years weighed heavier. The average level of trust fund assets was $1.3 trillion over 1995–2009 and $2.8 trillion over 2010–2023.

Trust fund reserves, though currently sizable in dollar terms, represent only a small portion of the value of all future scheduled Social Security benefits. As the system's actuarial deficit expands, the trust fund will increasingly be drawn upon to pay program benefits. This implies that the impact of recent year 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 2024 Trustees Report highlight the sensitivity of valuation results to the level of taxable payroll. A significant change in the rate of real wage increases (plus or minus 0.6%) would shift the level of measured actuarial deficit substantially (plus or minus 1.18%), and even shift the projected trust fund depletion date by a year.

On the other hand, because 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 (0.19%), while the projected trust fund reserve depletion date of 2035 is unchanged.

Table 2 summarizes the results of sensitivity calculations involving these two economic assumptions.

Table 2: Adjustments to Economic Assumptions

	Low-Cost Assumption	Intermediate Assumption	High-Cost Assumption
Real Wage Growth			
Ultimate growth rate (from 2033)	1.74%	1.14%	0.53%
Actuarial deficit	2.32%	3.50%	4.68%
Projected year of trust fund depletion	2036	2035	2034
Real Interest Rates			
Ultimate rate (from 2041)	2.8%	2.3%	1.8%
Actuarial deficit	3.31%	3.50%	3.69%
Projected year of trust fund depletion	2035	2035	2035

Other assumptions are intermediate

Source: 2024 Trustees Report, Tables V1.D4, V1.D6

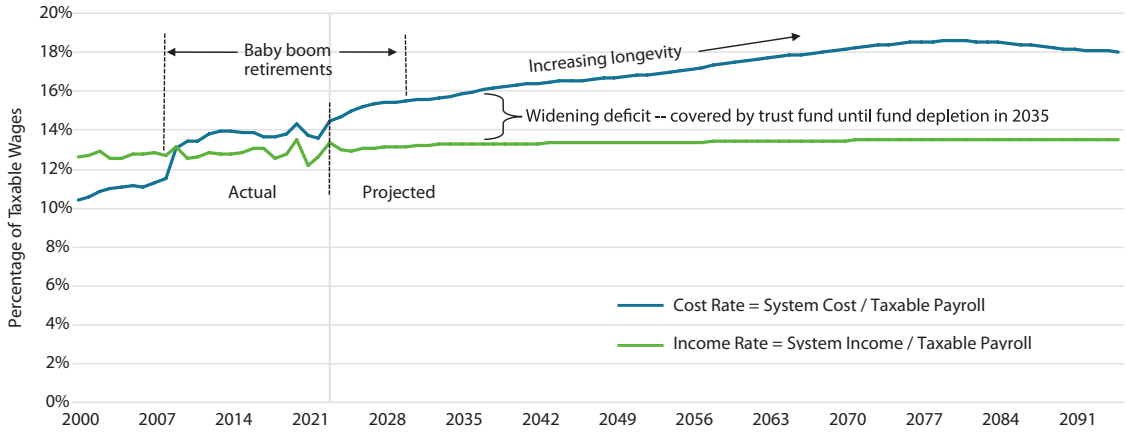
System Finances

Today's Social Security payroll tax rate (6.2% of earnings up to the wage base for both employees and employers) 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. This allowed the system to build a significant amount of reserves, which peaked at $2.9 trillion in 2020, in advance of 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 those workers, along with other system income, have not kept pace with increases in benefit payments—i.e., the current tax rate has become insufficient to support the level of benefit payouts.

The resulting drawdown of the previously accumulated trust fund assets has enabled Social Security to pay the scheduled benefit amounts. Thus, as shown earlier, the trust funds are anticipated to be depleted by the middle of the next decade. When reserves are depleted, projected tax revenue will be able to support a little more than 80% of projected benefits going forward.

The trustees define the annual cost rate of the system to be the projected cost of benefits divided by the projected taxable payroll. The projected path of future 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

Source: 2024 Trustees Report, Table IV.B1 (intermediate assumptions)

The cost rate is projected to increase significantly through 2027 as the retiring baby boom generation is replaced in the workplace by relatively smaller subsequent generations. During this period, the number of retirees is projected to increase by much more than the number of new workers. Later in the projection period, after demographic trends stabilize, the cost rate nonetheless continues to increase, albeit more gradually, due to lengthening life expectancies and 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 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 drop in fertility after the baby boom generation.
- The population forecasts made in 1983 have generally stood the test of time, while economic factors fell short. The intervening years saw a significant buildup of assets in the trust fund, but the amounts accumulated did not reach the level necessary to fund the entirety of the boomers' excess benefits. So, while in the original plan the trust fund would have lasted into the 2060s,[8] it is now projected to be depleted in 2035, only partway through the boomers' retirement period.
- For the most part, the shortfall results from the growth of taxable payroll falling below expectations. In addition, portfolio return rates declined below expectations starting in the 2010s, just as the level of trust assets was peaking. 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.

8 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 Achieving System Stability

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 3 shows that under the intermediate assumption set, an immediate combined employee/employer tax rate increase of 3.33% of taxable payroll (about 27% of the current 12.4% rate) would be necessary to support all currently scheduled benefits under the current system over the next 75 years. The table also shows that an immediate 20.8% 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 3: Immediate Actions to Achieve Financial Balance

Immediate increase in the payroll tax rate (assuming no benefit changes)	3.33% tax increase[9]
Immediate benefit cut for all current and future beneficiaries (assuming no payroll tax increase)	20.8% benefit cut

Note: Increases in payroll taxes would represent about a 1.67% increase for both employees and employers, with resulting tax rates of 7.87% for both parties. Delaying a tax increase to 2035 would necessitate a larger increase (4.02%); similarly, delaying a benefit cut to 2035 entails a larger cut (24.6%).

Source: 2024 Trustees Report, pages 5-6

Table 3 shows the impact of options that would be needed to provide for scheduled benefits if only tax rates were increased or only benefits 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, changes to benefits can be applied to all beneficiaries or to a subset of beneficiaries.

The most commonly referenced measure of the Social Security system's overall financial status is the 75-year actuarial balance, based on a comparison of the present values of revenues and expenditures over the 75-year projection period, and is expressed as a percentage of taxable payroll. As previously mentioned, the 75-year actuarial balance is an actuarial deficit of 3.50% of taxable payroll. Based on the trustees' definition, solvency is achieved when reserves combined with projected system income cover projected system payouts over the following 75 years.

However, if the expected income coming into the Social Security trust funds in the 76th and later 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. Thus, 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.

9 The indicated tax increase is less than the 3.50% 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 that period's end; in contrast, the actuarial deficit calculation presumes there will be a trust fund balance equal to one year's benefit payments.

Chart 10 illustrates a widening annual actuarial deficit over most of the 75-year projection period. If the intermediate assumptions are realized, a very significant financial imbalance is expected in later projection years.

There are two approaches to ameliorate this adverse financial trend: increase income or reduce benefits, although it is likely that both will be incorporated into Social Security reform.

- Ideas for increasing system revenue include increasing tax rates on all workers, removing the cap on taxable wages, and increasing the tax rates for high-wage earners. Under the intermediate assumptions, a tax rate-only solution sufficient to fund the full level of scheduled benefits would require increasing tax rates through 2079. There is a risk that these increased rates could prove to be overly burdensome/unpopular at some point in time.
- Ideas for decreasing system benefits include reducing benefits for higher-income people, gradually raising the full retirement age to reflect increased longevity, and changing the inflation index used to adjust benefits annually. If benefit decreases are considered, it is appropriate to consider a long phase-in period to provide retirees or pre-retirees sufficient time to plan for potentially lower future benefits.

Readers may also be interested in other American Academy of Actuaries issue briefs on Social Security reform referred to on the following page, which evaluate a range of alternatives for changing benefits, increasing taxes, and raising the retirement age. These are summarized in the *Sooner Rather Than Later* issue brief. In addition, visit the *Social Security Challenge* web tool to see how various public policy options can be combined to restore balance to the system.

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 the intermediate assumptions) and meets the criteria for sustainable solvency in the 2024 Trustees Report.

The number of workers applying for disability benefits has decreased materially after peaking in 2010, following the 2008–2009 recession. In the 2024 Trustees Report, long-term disability incidence is projected to rise gradually from recent year levels in the range of 3 to 4 per thousand to an ultimate disability incidence rate of 4.5 per thousand by 2033 (all rates calculated on an age-sex-adjusted basis).

The trustees project that the percentage of total Social Security benefits paid due to disability will drop from its level of 11.0% in 2023 to 9.3% in 2033.

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. The DI trust fund had been projected to be depleted in 2016, but Congress authorized the OASI trust fund to transfer money to the DI trust fund to prevent that from happening. Thus, this issue brief generally discusses the Social Security system as a whole (OASI and DI combined), under an 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 2024 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 2024 Trustees Report and in this issue brief are based on the intermediate assumptions. The trustees also present results under low-cost and high-cost alternatives to provide a range of possible future experience. However, the 2024 Trustees Report states that actual future costs are unlikely to be as extreme as those portrayed by the low-cost or high-cost projections.
- The trustees also look at OASDI finances under 5,000 independently generated stochastic simulations that reflect randomly assigned annual values for most of the key assumption parameters. These simulations produce a distribution of projected outcomes and corresponding probabilities that future outcomes will fall inside or outside a given range.

Resources

The Office of the Chief Actuary of the Social Security Administration

Annual Trustees Report and related Social Security Administration publications

The American Academy of Actuaries

Immigration and Social Security (to be updated summer 2024)

Highlights from the 2024 Social Security Trustees Report (May 2024)

Individual Equity and Social Adequacy in The U.S. Social Security System (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 (March 2022)

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)

Significance of the Social Security Trust Funds (May 2012)

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