

# Demographic Headwinds

---



The Economic Consequences of  
Lower Birth Rates and Longer Lives

## CHAPTER

# Low Fertility and Fiscal Sustainability: The Effects of Past and Future Fertility Rates on the US Federal Budget Outlook

by Lisa Dettling and Luke Pardue

---

APRIL 2026

# Low Fertility and Fiscal Sustainability: The Effects of Past and Future Fertility Rates on the US Federal Budget Outlook

## AUTHORS

---

Lisa Dettling\* and Luke Pardue\*\*

## SUMMARY

---

Low fertility and population aging have shaped the U.S. federal government's spending and revenue patterns, contributing in large part to the growing federal debt. This paper examines the role of these trends in shaping America's current fiscal position and the potential for a reversal of these trends to relieve domestic fiscal pressures. The authors find that the dramatic rise in fertility rates during the Baby Boom has led to a marked rise in old-age entitlement spending, as this cohort entered retirement. Rising life expectancies have also been a significant driver of increased entitlement spending and will continue to place pressure on federal deficits and debt in the coming decades. This paper then evaluates how near-term fertility trends would affect the federal budget under a baseline scenario of continued low fertility and an alternative scenario in which the US returns to a replacement-level total fertility rate in 2026. Under both scenarios, deficits and debt are projected to remain on an unsustainable path through 2055, as changes in the fertility rate today would take multiple decades to meaningfully impact the size of the working-age population. In fact, the budget outlook is somewhat worse under the replacement fertility scenario, and demonstrably so if we factor in the costs of pronatalist policies that might be needed to achieve replacement fertility. In the outlook beyond 30 years, higher fertility would gradually improve the fiscal position. However, given the current unsustainable trajectory of the US federal debt, it is possible that changes in tax or spending policy would need to occur before the fiscal benefits of higher fertility rates could be realized.

\* Federal Reserve Board; the views expressed are those of the author and do not necessarily reflect those of the Board of Governors or the Federal Reserve System.

\*\* Aspen Economic Strategy Group

## Introduction

The US total fertility rate (TFR) fell below 1.6 for the first time in 2024, following a general downward trend since the Great Recession (Martin et al. 2025). The fact that fertility rates have remained below the replacement level of 2.1 for over a decade has raised important questions among economists and policymakers about the fiscal implications of sustained low fertility. Key concerns include the solvency of public pensions and the fiscal pressure that imbalances in pay-as-you-go entitlement programs, such as Social Security and Medicare, exert on public debt and deficits. This brief examines how changes in fertility rates in the past 75 years have contributed to the current US federal budget position, and how the potential for sustained low fertility rates in the coming 75 years can be expected to affect the trajectory of federal deficits and debt going forward.

Our analysis reveals that past fertility-rate fluctuations are a significant contributor to the rise in deficits and debt in recent decades. In particular, the dramatic rise and fall in fertility rates during and after the mid-twentieth-century Baby Boom led to a marked rise in old-age entitlement spending (e.g., Social Security and Medicare) as a share of GDP as the Baby Boom cohort entered retirement. And because life expectancy is projected to continue to rise, old-age entitlement spending will continue to place pressure on federal deficits and debt for the next three decades, as these large cohorts live longer than ever before. All told, federal debt is projected to be on an unsustainable path and continue to rise as a share of GDP. We project that federal debt would instead stabilize if it weren't for the projected growth in old-age entitlement spending.

*“We project that federal debt would instead stabilize if it weren't for the projected growth in old-age entitlement spending.”*

We then consider how persistence of the current low-fertility regime would affect the federal budget in the coming decades. To do so, we compare (1) the trajectory of federal deficits and debt under our baseline assumption that the current low-fertility regime persists, with (2) a hypothetical scenario where fertility rates instead return to replacement levels. We find that deficits and debt are projected to be on an unsustainable path in both scenarios, but the trajectory is somewhat worse over the next three decades with higher fertility rates. The simple reason for this result is that a baby born now does not enter the workforce and begin to pay taxes for many years, and in the meantime, government outlays on children are larger when fertility rates are higher. If we additionally factor in the potential costs of a pronatalist policy that

might achieve higher fertility rates, the fiscal outlook would be much worse. In the outlook beyond 30 years, the fiscal position would gradually become relatively better if fertility rates were higher. However, given the unsustainable trajectory of the US federal debt, it seems very possible that changes in tax or spending policy would need to occur before the fiscal benefits of higher fertility rates could be realized.

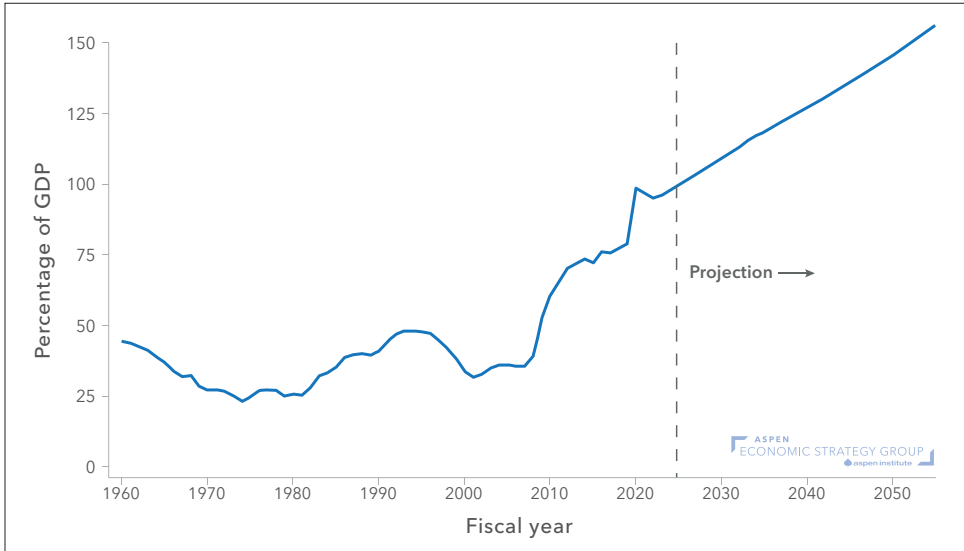
### **1. Federal debt as a share of GDP has risen substantially in recent decades and is projected to be on an unsustainable path.**

From 1960 through 2000, federal debt as a share of GDP hovered between 25 and 50 percent of GDP, as displayed in figure 1. In the middle of the first decade of the 2000s, the federal debt began to steadily climb, reaching 75 percent of GDP around 2015 and nearly 100 percent of GDP in 2024. In the long-run budget projections produced by the Congressional Budget Office (CBO 2025d), which assume current laws remain in place, federal debt will continue to grow as a share of GDP over the next thirty years, reaching over 150 percent by 2055 (the last year included in their most recent long-run projection).

Growth in federal debt over the past 50 years can be explained by generally rising annual deficits. On average, primary deficits (total deficits excluding net interest payments on the debt) in the 1960s through the 1980s were about 0.5 percent of GDP. Then, after a brief period of budget surpluses in the 1990s, primary deficits began to climb each decade thereafter, on average. In 2024, the primary deficit was 3.3 percent of GDP. In CBO's projections from 2025 through 2055, primary deficits remain elevated, and the debt-to-GDP ratio continues to rise.<sup>1</sup> In other words, the projected trajectory of US federal debt is unsustainable.

---

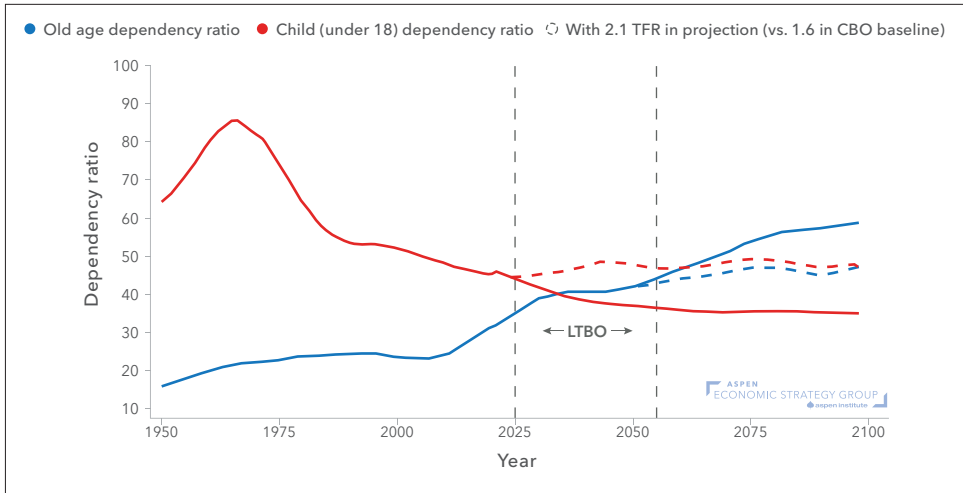
1 CBO's assumption that federal policies follow "current law" at the time of publication of their last projection in early 2025 overstates the extent to which deficits will fall, as it does not include the effects of the One Big Beautiful Bill Act (OBBBA), which extended many expiring provisions of the Tax Cuts and Jobs Act. CBO estimates that OBBBA will raise deficits going forward (CBO, 2025f). Thus, federal debt as a share of GDP will likely rise more in CBO's next long-term budget projection (scheduled to be released in February 2026, after this article went to press). Auerbach and Gale (2025) find that after accounting for changes from the OBBBA, the debt-to-GDP ratio will reach 183 percent by 2054.

**Figure 1: Debt as a percentage of GDP, 1962-2055**

Source: Historical budget data 1960-2024 (CBO, 2025b) and long-run budget projections 2025-2055 (CBO, 2025d).

## 2. The dramatic swings in fertility in the mid-twentieth century have been a significant driver of the rise in federal deficits and debt over the last three decades.

Fertility rates affect the federal budget because they affect dependency ratios (the ratio of dependents, both children and the elderly, to the working-age population). All else equal, as dependency ratios rise, spending on programs that support dependents rises relative to tax revenue generated by the working-age population. Absent policy changes, a growing imbalance between spending on dependents and revenues leads to rising federal deficits.

**Figure 2: US dependency ratios, 1950-2100, with different projections for fertility rates**

**Source:** Authors' calculations based on population data from the Human Mortality Database (n.d.) and long-run demographic projections from CBO (2025a).

**Notes:** Old-age dependency ratio is the ratio of the population aged 65+ to the working-age population aged 20-64. Child dependency ratio is the ratio of the population aged under 18 to the working-age population aged 20-64. The dashed lines labelled "LTBO" indicate CBO's long-term budget outlook time frame (2025-2055).

The solid lines in figure 2 show old-age and child dependency ratios from 1950 to the present, as well as in CBO's long-run demographic projections (through 2100).<sup>2</sup> The large swings in dependency ratios over the last 75 years can be traced back to the dramatic swings in fertility rates that occurred in the mid-twentieth-century Baby Boom and bust, which dramatically altered relative cohort sizes. During the baby boom, fertility rates rose from around the replacement level of 2.1 births per woman in the 1930s to nearly 3.8 in the late 1950s, before returning to a bit below replacement by the 1970s. Initially, the relatively large Baby Boom cohort led to a surge in child dependency ratios. Then, as the Baby Boomers entered the workforce in the 1970s and as later cohorts were smaller, child dependency ratios gradually declined. Old-age dependency ratios rose only modestly from 1950 until 2000, before steadily climbing from 2000 to 2025 as the Baby Boomers aged into retirement. In CBO's projections from 2025 onwards, child dependency ratios stabilize, while old-age dependency ratios continue to climb; the former reflect CBO's assumptions that fertility rates will remain low (at 1.6), while the latter largely reflect CBO's assumption that life expectancy will continue to rise.

<sup>2</sup> Details on the data and methods used in this brief can be found in the data appendix.

Although both child and old-age dependency ratios affect the federal budget, old-age dependency ratios are far more important for understanding the rise in deficits and the federal debt over the past three decades. The relative importance of old-age dependency ratios reflects a combination of their dramatic growth and the fact that, on a per-capita basis, federal government spending on the elderly is considerably larger than spending on children. Most of the spending on the elderly reflects the major old-age entitlement programs—namely, Social Security (which provides public pensions for the elderly) and Medicare (which provides health insurance for the elderly). Federal spending on children, including via health insurance (e.g., Medicaid), tax credits, and various transfers, is much smaller. In 2019, per-capita federal spending on the elderly was nearly \$30,000, more than five times larger than per-capita federal spending on children (Kearney and Pardue 2023).<sup>3</sup>

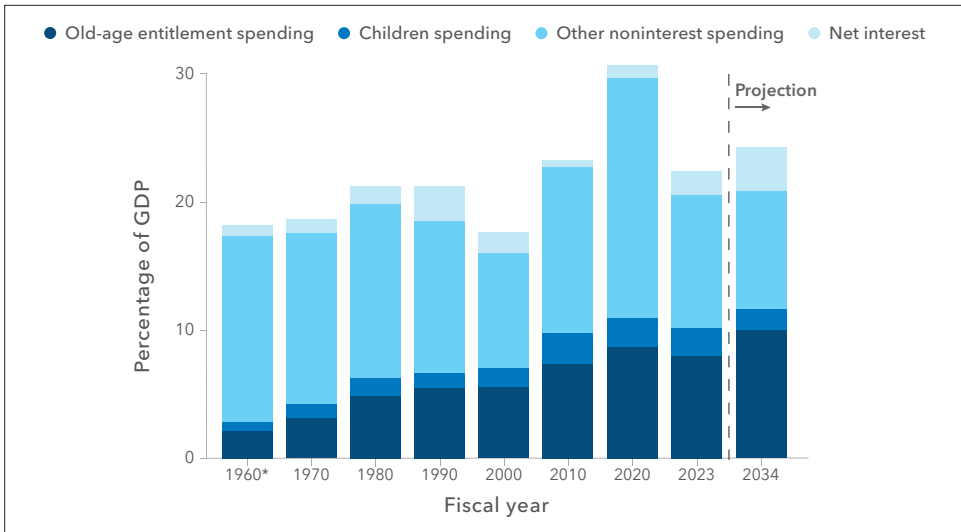
Figure 3 shows a decomposition of federal outlays, separating out the major old-age entitlement programs (defined as combined spending on Social Security and Medicare), spending on children (including health insurance, tax credits, and various transfers), and all other non-interest and interest spending.<sup>4</sup> In the mid-1960s, spending on old-age entitlement programs was 2.5 percent of GDP. Since then, it has steadily risen to about 6 percent of GDP in 2000 to almost 9 percent of GDP in 2023. By comparison, federal spending on children has remained relatively small as a share of GDP, reaching about 2 percent in 2023.

Overall, the secular rise in spending on old-age entitlement programs has been a major contributor to the secular rise in primary deficits in recent decades. All else equal, if these programs had remained at their 2000 level as a share of GDP, the primary deficit in 2023 would have been about 0.8 percent of GDP, compared to 3.3 percent of GDP.

---

3 A much larger share of government spending on children happens at the state and local levels, primarily via spending on public education, which does not directly affect federal deficits or debt. Still, even including state and local government spending, per-capita outlays on children are smaller than per-capita outlays on the elderly (Kearney and Pardue 2023). Jeffrey Clemens's article "Implications of Low Fertility and Declining Populations for the Operations of US State and Local Governments" (this volume) discusses the effects of persistently low fertility on state and local government budgets.

4 The measure of spending on children is from Hahn et al. 2024. The old-age entitlement spending measures exclude Social Security Disability Insurance (SSDI) spending.

**Figure 3: Federal outlays as a percentage of GDP, by decade**

**Source:** Authors' calculation based on historical and projected budget estimates from CBO (2025b) and children spending from Hahn et al. (2024).

**Notes:** Old-age entitlement spending includes Medicare and Social Security spending, excluding Social Security Disability Insurance (SSDI) spending. Children spending includes health insurance, tax credits, and transfers, as defined in Hahn et al. 2024. \*Budget data for 1962 and children spending data for 1960.

### 3. Were it not for the projected rise in old-age dependency ratios, the US federal debt would stabilize over the next three decades.

CBO projects that old-age dependency ratios will steadily rise from 34.2 percent in 2024 to 44.2 percent in 2055, as seen in figure 2. As a result, spending on the major old-age entitlement programs is also projected to continue to grow relative to GDP and is a key contributor to rising deficits and debt in CBO's projections.

The projected growth in old-age entitlement program spending can be attributed to (1) the size of cohorts expected to enter into retirement (due to past fertility rates and immigration), (2) CBO's expectation that life expectancy will continue to rise, and (3) rising health costs. (Of note, projected future fertility rates do not play much of a role in this growth, a point we will return to in the next section.) Figure 4 decomposes how these forces affect the projected rise in spending on the major old-age entitlement programs and deficits over the next 30 years. To do so, we decompose the effects of rising old-age dependency ratios on old-age entitlement spending, separating out effects stemming from increased life expectancy as opposed to those stemming from larger cohorts entering retirement. We carry out this analysis by

simulating the population under two scenarios: constant 2025 mortality rates and constant 2025 age-specific population shares. We then use per-enrollee spending projections to estimate the effect of each factor on old-age entitlement program spending growth and deficits.

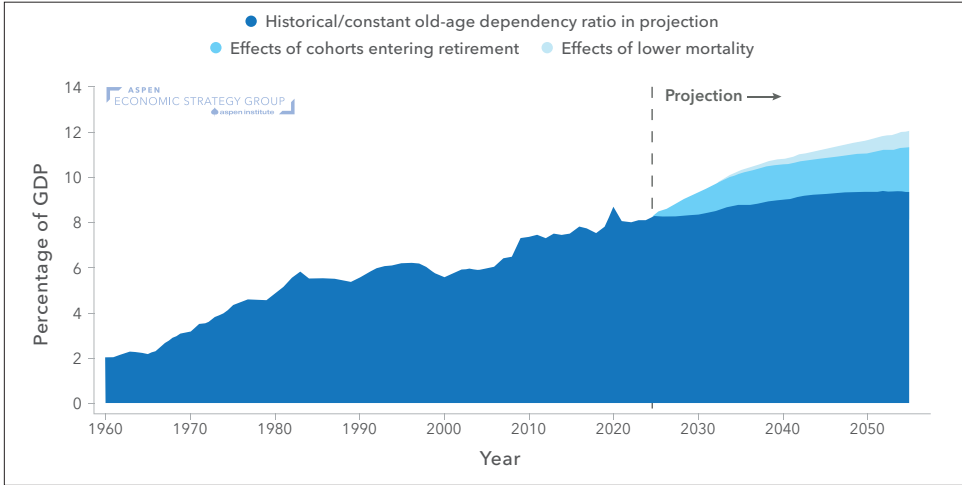
A few observations arise out of this decomposition. First, figure 4a shows that cohort sizes are the primary driver of the growth in old-age entitlement spending in the first ten years of CBO's projections. This is because the still relatively large cohorts born just after the baby boom in 1960–1970 are expected to enter retirement at that time (fertility rates were about 3, on average, from 1960–1970). After 2035, rising life expectancy is the main driver of growth, as the cohorts born in the 1970s and 1980s were much smaller than their predecessors (fertility rates were below 2 in that period).

Second, figure 4a shows that if old-age dependency ratios were to remain at their 2024 level throughout the projection, old-age entitlement program spending would grow much more slowly, reaching only 9.8 percent of GDP in 2055 instead of 12.6 percent. The reason outlays on these programs continue to grow even without a rise in the dependency ratio is because CBO projects that health costs for Medicare will continue to rise.

Third, figure 4b shows that without the growth in old-age entitlement program spending due to rising old-age dependency ratios, deficits would *fall* substantially over the next 30 years. Around 2040, the government would begin operating under a primary budget surplus if it weren't for the growth in such spending. With a budget surplus, the federal debt would begin to fall, net interest payments would be smaller, and total deficits would shrink. This finding is particularly striking because, as noted above, these projected deficit reductions still allow for the projected rise in per-enrollee program costs. All told, this result implies that if it weren't for rising old-age dependency ratios, the federal debt would be projected to stabilize.

**Figure 4: Decomposition of effects of rising old-age dependency ratios on old-age entitlement spending and deficits, 1960-2055**

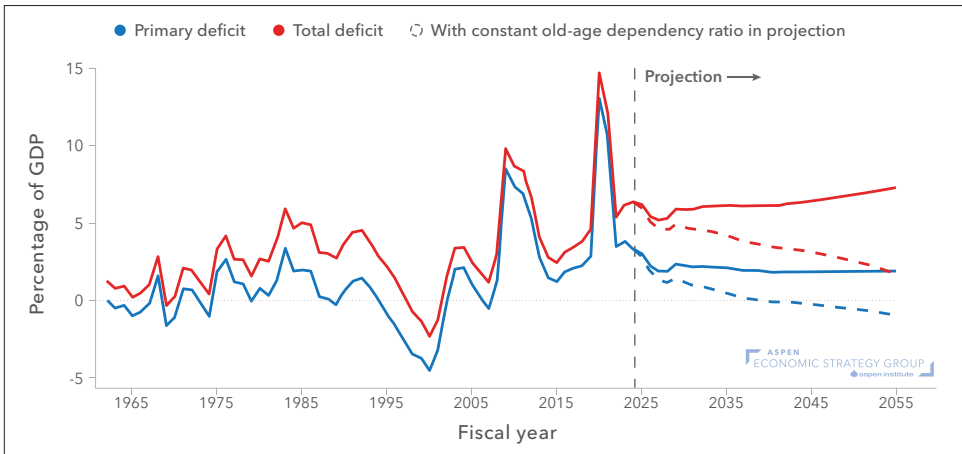
**(a) Aging effects on old-age entitlement spending**



**Source:** Authors’ calculations based on historical budget estimates from CBO (2025b), long-run budget projections from CBO (2025d), population data from the Human Mortality Database (n.d.), and long-run demographic projections from CBO (2025a).

**Notes:** Old-age entitlement spending includes Medicare and Social Security spending, excluding SSDI spending.

**(b) Aging effects on primary and total deficits**



**Source:** Authors’ calculations based on historical budget estimates from CBO (2025b), long-run budget projections from CBO (2025d), population data from the Human Mortality Database (n.d.), and long-run demographic projections from CBO (2025a).

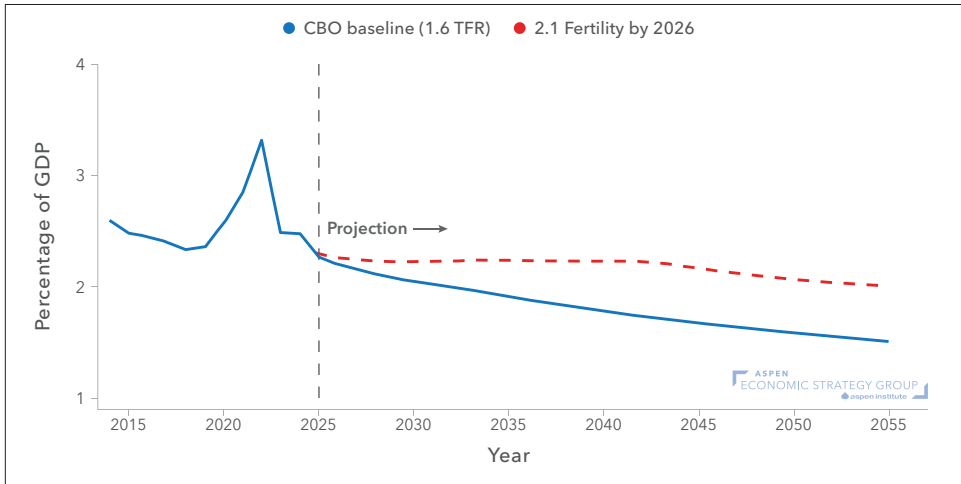
#### **4. If fertility rates remain low, the US federal debt is on an unsustainable path. But a higher fertility rate would worsen the projected trajectory of federal debt over the next three decades.**

CBO's baseline projection assumes fertility rates remain where they are today, at 1.6, throughout its projections. As noted earlier, under these (and other) assumptions, the federal debt is projected to be on an unsustainable path. To evaluate the effects of persistently low fertility on the federal budget outlook, we consider how the trajectory of deficits and debts would be altered if, rather than remaining at 1.6, fertility rates were to rise to the replacement rate of 2.1 starting next year and stay there. Although such growth would be an extraordinary break from recent trends and seems unlikely to occur, the comparison between the two scenarios is illustrative of how fertility rate assumptions alter the federal budget outlook. Figure 2 shows how these assumptions affect projections of dependency ratios.

We find that the federal budget outlook over the horizon of CBO's long-run thirty-year projection is *better* under the low-fertility baseline than the replacement-fertility scenario. The simple reason for this finding is that a child born today will not join the workforce and pay taxes for about 20 years. Accordingly, higher fertility rates do not do much, mechanically, to lower old-age dependency ratios over the 30-year budget window, as can be seen in figure 2. Therefore, they do not do much to reduce federal budget deficits, either. Indeed, the Social Security Administration (SSA) estimates that its trust fund will be depleted by 2034 regardless of whether fertility rates are assumed to be 1.6 or 2.1 in its projections (SSA 2025).

Under the replacement-fertility scenario, the child dependency ratio rises more than it does in the low-fertility baseline, as can be seen in figure 2. As a result of these higher child-dependency ratios, outlays on children would be expected to rise throughout the projection. Figure 5 shows a projection for child-related spending as a share of GDP under both the baseline and replacement-fertility rate scenarios. Spending on children would be expected to rise to about 2.0 percent of GDP by 2055 under the replacement scenario, compared to 1.5 percent in the baseline.

**Figure 5: Federal spending on children, with different assumptions for future fertility rates, 2015-2055**



**Source:** Authors' calculations based on children spending from Hahn et al (2024), budget projections from CBO (2025d), population data from the Human Mortality Database (n.d.), and demographic projections from CBO (2025a).

In the final decade of the CBO's 30-year projection, the larger birth cohorts in the replacement-fertility scenario would enter into the workforce, leading to faster labor force growth than in the baseline. This growth would then be expected to raise real GDP growth and revenues, offsetting at least some of the additional child-related spending. Using our estimates of labor force growth under the two scenarios, coupled with CBO's standard rules of thumb on the effects of labor force growth on deficits, we estimate that primary deficits would shrink by about 0.3 percent of GDP per year, on average, over the last decade of the projection through this channel (CBO 2025c). This decrease alone would not be enough to offset the increases in child-related spending shown in figure 5.

It is plausible that this influx of young workers could raise productivity growth enough to fully offset the increase in child-related spending. Based on CBO's rules of thumb, we estimate that productivity growth would need to be about 0.2–0.3 percentage points higher per year to fully offset child-related spending—increases that are large but not completely unrealistic.<sup>5</sup> Still, with higher primary deficits in at least the first 20 years of the projection, federal debt and net interest payments would rise, raising total deficits above CBO's baseline low-fertility scenario. In other words, the federal

<sup>5</sup> As a point of comparison, Aaronson and Sullivan (2001) estimate that improvements in labor quality (in part via rising educational attainment) raised labor productivity by 0.2 percentage points a year from the 1960s through the 1990s.

budget outlook would be worse three decades from now if fertility rates were to rise to replacement and stay there as compared to staying persistently low.

Furthermore, it seems very unlikely that the fertility rate would suddenly rise to replacement without some pronatalist policy action by the government. If we factor in levels of government spending that could plausibly achieve a fertility rate of 2.1, the cost for the government could be enormous. Empirical evidence indicates that cash transfers and tax credits can lead to only modest increases in fertility (Kearney and Levine 2023). To model the hypothetical cost of raising the U.S. fertility rate to 2.1, Stone (2020) utilizes fertility elasticities and costs from past pronatalist programs, scaling them to the magnitude necessary to bring US fertility rates above replacement. Stone estimates that achieving replacement fertility would cost between \$200,000 and \$1 million per child in tax incentives, transfer payments, and other financial support, translating to between \$250 billion and \$1 trillion in annual government expenditures (Ponnuru and Stone, 2020). This expense would raise the primary deficit by an additional 0.8 to 1 percent of GDP per year—magnitudes that would cause explosive growth in the federal debt.

## **5. Over the very long run, higher fertility rates could improve the budget outlook, but fiscal consolidation could be necessary before that happens.**

Beyond the 30-year horizon, the budget outlook would start to gradually improve under the higher replacement-fertility scenario in comparison to the persistent low-fertility baseline, as individuals born in the next few decades would begin to enter the workforce in larger numbers and stabilize old-age dependency ratios relative to the low-fertility baseline, as can be seen in figure 2.

As the old-age dependency ratio stabilizes, the federal budget outlook improves. For example, in SSA's alternative long-run scenarios, a fertility rate of 2.1 compared to 1.6 does little to improve program balances (roughly the difference between benefits and payroll tax revenues) over the next 25 or even 50 years. However, by 2099, the balance improves from -7.4 percent of taxable payroll to -3.5 percent under the 2.1 fertility versus 1.6 fertility rate scenarios, respectively (SSA, 2025).

A key issue would be whether the federal debt became sufficiently high prior to that time such that fiscal consolidation (i.e., higher taxes and/or lower spending) would need to happen, perhaps to avert a fiscal crisis. A fiscal crisis is a situation in which the perceived risks of US public debt become sufficiently high that investors lose confidence and demand higher and higher interest rates on government bonds. If the desire to avert the pain of fiscal consolidation is a reason why higher fertility

rates are desirable, then the prospect that a fiscal crisis could occur before the benefits of a larger population can be realized is highly relevant.

*“Given the current unsustainable trajectory of the federal debt, it is very possible that fiscal consolidation will need to happen before any potential fiscal benefits from higher fertility rates can be realized.”*

There are ongoing debates over what level of debt is sustainable for the United States to maintain or accumulate, and historical evidence offers little consensus on a specific threshold at which a fiscal crisis would occur. Most research rejects the notion of a singular “tipping point” at which rising debt would trigger an immediate fiscal crisis (Edelberg et al. 2025; Furman 2024; Dynan 2023). That said, some research has attempted to estimate the level at which US debt would be on an unsustainable path and the probability of a fiscal crisis considerably heightened. These papers suggest that fiscal consolidation would

probably need to occur before the benefits of higher fertility rates can be realized. For example, Gokhale and Smetters (2023) argue that the US debt will become unsustainable by the 2040s and that a fiscal crisis seems probable in the next two to three decades. Elenev et al. (2025) estimate an “austerity threshold” when the debt reaches roughly 189 percent GDP, above which the US government would need to increase fiscal surpluses to safely manage the debt.<sup>6</sup> That said, it is certainly possible that with higher fertility rates—and thus, an expected future increase in the working-age population—the perceived risk of government debt would be lower and there would be more fiscal space.

## 6. Final thoughts and some caveats

We find that although past declines in fertility are an important driver of the secular increase in deficits and debt in recent decades, persistently low fertility will not worsen the budget outlook in the next couple of decades. In fact, we find that if fertility rates were to suddenly return to replacement, the budget outlook over the next 20 years would worsen, and demonstrably so if we factor in the costs of pronatalist policies that might be needed to achieve replacement fertility. Beyond the next few decades, a higher-fertility-rate scenario would begin to improve the fiscal outlook. But given the current unsustainable trajectory of the federal debt, it is very possible that fiscal consolidation will need to happen before any potential fiscal benefits from higher fertility rates can be realized.

<sup>6</sup> As noted earlier, Auerbach and Gale (2025), who update CBO projections to include recent legislation, find that the US debt is likely to reach about that level by the 2050s.

We would be remiss if we didn't note some caveats to our analysis. The discussion in this article relies in large part on CBO's long-run projections for economic growth, interest rates, and government spending, all of which are incredibly uncertain, and a huge range of alternative outcomes are plausible (see CBO 2025e). Research shows that low fertility is a drag on economic growth and lowers the natural rate of interest (e.g., Bianchi and Paradisi forthcoming; Rachel and Smith 2017; Gagnon et al. 2016 and 2021). If persistently low fertility leads to slower growth than CBO assumes, the budget outlook will worsen; if it leads to lower interest rates than assumed, the outlook will improve. Finally, although this brief focuses solely on the fiscal implications of low fertility, there are, of course, other reasons beyond the fiscal outlook why governments may care about falling birth rates and the prospect of a shrinking population.

## References

- Aaronson, Daniel, and Daniel Sullivan. 2001, November. "Growth in Worker Quality." *Economic Perspectives* 25, no. 4: 53–74.
- Auerbach, Alan J., and William Gale. 2025, November. *Then and Now: A Look Back and Ahead at the Federal Budget*. Working paper no. 34455. National Bureau of Economic Research. <https://doi.org/10.3386/w34455>.
- Bianchi, Nicola, and Matteo Paradisi. Forthcoming. *The Age Divide in the American Workplace*. In *Demographic Headwinds*, edited by the Aspen Economic Strategy Group. Washington, DC: Aspen Economic Strategy Group.
- Congressional Budget Office. 2025a, January 13. *The Demographic Outlook: 2025 to 2055*. US Congress. <https://www.cbo.gov/publication/60875>
- Congressional Budget Office. 2025b, January 17. *The Budget and Economic Outlook: 2025 to 2035*. US Congress. <https://www.cbo.gov/publication/60870>
- Congressional Budget Office. 2025c, March 13. *Workbook for How Changes in Economic Conditions Might Affect the Federal Budget: 2025 to 2035*. US Congress. <https://www.cbo.gov/publication/61183>.
- Congressional Budget Office. 2025d, March 27. *The Long-Term Budget Outlook: 2025 to 2055*. US Congress. <https://www.cbo.gov/publication/61187>.
- Congressional Budget Office. 2025e, May 28. *The Long-Term Budget Outlook Under Alternative Scenarios for the Economy and Budget*. US Congress. <https://www.cbo.gov/publication/61332>
- Congressional Budget Office. 2025f, July 21. *Estimated Budgetary Effects of Public Law 119-21, to Provide for Reconciliation Pursuant to Title II of H. Con. Res. 14, Relative to CBO's January 2025 Baseline*. US Congress. <https://www.cbo.gov/publication/61570>
- Dynan, Karen. 2023. "High and Rising U.S. Federal Debt: Causes and Implications." In *Building a More Resilient US Economy*, edited by Melissa S. Kearney, Justin Schardin, and Luke Pardue, 18–43. Aspen Economic Strategy Group. [https://www.economicstrategygroup.org/wp-content/uploads/2023/11/Dynan\\_2023\\_Chapter.pdf](https://www.economicstrategygroup.org/wp-content/uploads/2023/11/Dynan_2023_Chapter.pdf).
- Edelberg, Wendy, Ben Harris, and Louise Sheiner. 2025, February 12. "Assessing the Risks and Costs of the Rising U.S. Federal Debt." Brookings Institution. <https://www.brookings.edu/articles/assessing-the-risks-and-costs-of-the-rising-us-federal-debt>.
- Elenev, Vadim, Tim Landvoigt, and Stijn Van Nieuwerburgh. 2025, October. "The Austerity Threshold." Working paper no. 34397. National Bureau of Economic Research. <https://www.nber.org/papers/w34397>
- Furman, Jason. 2024. "Eight Questions—and Some Answers—on the US Fiscal Situation." In *Strengthening America's Economic Dynamism*, edited by Melissa S. Kearney and Luke Pardue, 136–65. Aspen Economic Strategy Group. <https://www.economicstrategygroup.org/wp-content/uploads/2024/12/Furman-AESG-2024.pdf>.
- Gokhale, Josh, and Kent Smetters. 2023, October 6. "When Does Federal Debt Reach Unsustainable Levels?" Penn Wharton Budget Model. <https://budgetmodel.wharton.upenn.edu/issues/2023/10/6/when-does-federal-debt-reach-unsustainable-levels>.

- Hahn, Heather, Elli Nikolopoulos, Cary Lou, Hannah Sumiko Daly, Eden Phillips, Michelle Casas, et al. 2024, September 30. *Kids' Share 2024: Report on Federal Expenditures on Children Through 2023 and Future Projections*. Urban Institute. <https://www.urban.org/research/publication/kids-share-2024>.
- Human Mortality Database. n.d. "United States–Country Data." Max Planck Institute for Demographic Research, University of California, Berkeley, and French Institute for Demographic Studies. Accessed January 13, 2025. <https://www.mortality.org/Country/Country?cntr=USA>.
- Kearney, Melissa S., and Phillip B. Levine. 2023. "The Causes and Consequences of Declining U.S. Fertility." In *Strengthening America's Prosperity*, edited by Melissa S. Kearney and Luke Pardue, 74–101. Aspen Economic Strategy Group.
- Kearney, Melissa S., and Luke Pardue. 2023, November 8. "The Economic Case for Smart Investing in America's Youth." In *Building a More Resilient U.S. Economy*, edited by Melissa S. Kearney, Justin Schardin, and Luke Pardue, 171–93. Aspen Institute.
- Martin, J. A., B. E. Hamilton, and M. J. K. Osterman. 2025, July. "Births in the United States, 2024." NCHS Data Brief 535: 1–8. <https://dx.doi.org/10.15620/cdc/174613>.
- Ponnuru, Ramesh, and Lyman Stone. 2020, December 8. "Want More American Babies? Make the U.S. More Livable." American Enterprise Institute. <https://www.aei.org/op-eds/want-more-american-babies-make-the-u-s-more-livable/>.
- Social Security Administration. 2025. *The 2025 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. <https://www.ssa.gov/OACT/TR/2025/>
- Stone, Lyman. 2020, March 5. "Pro-Natal Policies Work, but They Come with a Hefty Price Tag." Institute for Family Studies. <https://ifstudies.org/blog/pro-natal-policies-work-but-they-come-with-a-hefty-price-tag>.