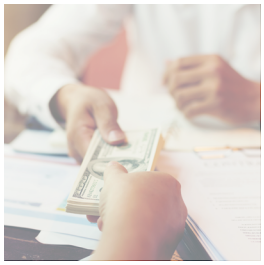
Promoting Economic Growth through Social Security Reform









MARC GOLDWEIN | MAYA MACGUINEAS | CHRIS TOWNER

COMMITTEE FOR A RESPONSIBLE FEDERAL BUDGET

This paper was prepared as part of a Concord Coalition project on fiscal responsibility and economic growth. Generous financial support was provided by Jeff Fox, Chairman and CEO of Harbour Group, St. Louis Missouri.

This page is intentionally left blank.

Executive Summary

As the population ages and an increasing share of Americans exit the workforce for retirement, economic growth is projected to slow considerably. The aging of the population also undermines retirement security and puts the Social Security program at risk.

Due to the increasing number of beneficiaries relative to workers, Social Security spending already exceeds revenue. By 2035, the program's trust funds will be exhausted, triggering an automatic 20 to 25 percent across-the-board benefit cut under current law.

Social Security spending and revenue must be brought in line to prevent insolvency. However, a thoughtful Social Security reform plan should go beyond simply assuring actuarial soundness by also improving retirement security and economic growth. In particular, Social Security reform should increase national income by promoting work, investment, and fiscal sustainability.

In this paper, we propose a *Pro-Growth Social Security Reform* framework, which would both shore up Social Security and grow the economy at a faster pace. Our framework includes four parts:

1. **Promote delayed retirement and productive aging** by increasing Social Security's retirement ages while insulating vulnerable workers with an Age 62 Poverty Protection Benefit (62-PPB) to boost benefits for low-income workers.
2. **Reward work at all ages** by counting *all* years of work toward benefits and by calculating benefits based on each year's earnings rather than average 35-year lifetime earnings.
3. **Increase savings and investment** by automatically enrolling workers in add-on "Supplemental Retirement Accounts" (SRAs) and placing a share of wages, on top of the payroll tax, in those SRAs unless a worker chooses to opt out.
4. **Improve certainty and sustainability** by making Social Security sustainably solvent through a mix of progressive revenue and benefit adjustments.

We estimate that our framework would increase the projected size of the economy by between 3.5 and 13 percent by 2050, which is the equivalent of a 0.25 percentage point increase in the annual growth rate under our central estimate. A growth rate of that magnitude would increase average per person income by about $8,000 in 2050 and reduce projected debt levels by about 20 percent of GDP (excluding the direct effects of reform).

An illustrative plan based on our framework would also permanently restore Social Security solvency and substantially improve retirement security – particularly for low-income retirees.

While it would be impossible to totally reverse the adverse economic effects of population aging, our paper shows that demographics are not destiny – at least not fully. Thoughtful public policy can mitigate reductions in capital and labor force growth, resulting in faster rising incomes and wealth and a stronger economy for current and future generations.

Summary of Recommendations for Pro-Growth Social Security Reform

Recommendation #1: Increase the Retirement Ages while Insulating Vulnerable Workers with an Age 62 Poverty Protection Benefit (62-PPB). One way to increase the size of the economy is to promote work among older Americans. Workers today face mixed retirement signals that often draw them into early retirement and treat retirement itself as a binary choice. To encourage longer and more flexible working lives, we propose phasing in an increase to Social Security's early and normal retirement ages and then indexing them to growth in life expectancy. Understanding that many workers are unable to continue to work, we also propose offering all workers a 62-PPB benefit designed to insulate low-income workers from the financial effects of the age increases and ensure that anyone can retire at 62 without slipping into poverty.

Recommendation #2: Calculate Benefits Based on Each Year of Work Rather than Lifetime 35-Year Average Earnings. Higher labor force participation among workers of all ages can help to strengthen the economy. Yet the current Social Security benefit formula imposes a significant implicit tax on those who work less than ten years and on workers later in their careers – especially after 35 years of work. To reward each year of work, we propose counting every year of earnings toward Social Security benefits and applying Social Security's benefit formula to annual, rather than average, earnings through a formula known as "mini-PIA."

Recommendation #3: Automatically Enroll Workers into a "Supplemental Retirement Account" (SRA) on top of Social Security, with the Choice to Opt Out. Increasing the national savings rate would boost overall investment, increasing capital stock and economic growth. Unfortunately, many workers lack access to retirement savings vehicles, or are saving too little for retirement. To increase savings and investment, we recommend enrolling workers into add-on SRAs and automatically contributing 2 to 3 percent of their wages unless a worker chooses to discontinue contributions. SRAs could be invested into one of several well-diversified, low-fee funds and would be owned by the worker, who could access the funds upon retirement.

Recommendation #4: Make Social Security Sustainably Solvent Through a Combination of Progressive Tax and Benefit Changes. Reducing federal borrowing can promote economic growth by reducing "crowd out" of private investment, while improving policy certainty can significantly improve saving and investment choices. Unfortunately, Social Security is running large and rising deficits, which increase federal debt and leave the program on course to exhaust its trust fund reserves by 2035. To make the program sustainably solvent, we suggest a package of progressive revenue and benefit adjustments that would protect low-income seniors, phase in gradually, and ultimately bring the program's costs and revenues in line. We also suggest that the precise composition of this package be decided as part of a political negotiation.

We also suggest lawmakers consider other pro-growth reforms – as part of and to supplement Social Security reform – in order to maximize potential growth effects.

The Case for Pro-Growth Social Security Reform

Economic growth is likely to slow down in the coming years. As the population ages, a rising share of adults will enter retirement, and the size of the labor force will remain relatively flat. America needs a comprehensive economic growth strategy to ensure sufficient rising standards of living. Such a strategy should focus on increasing work and savings while slowing the growth of the national debt in order to expand the country's supply of labor and capital.

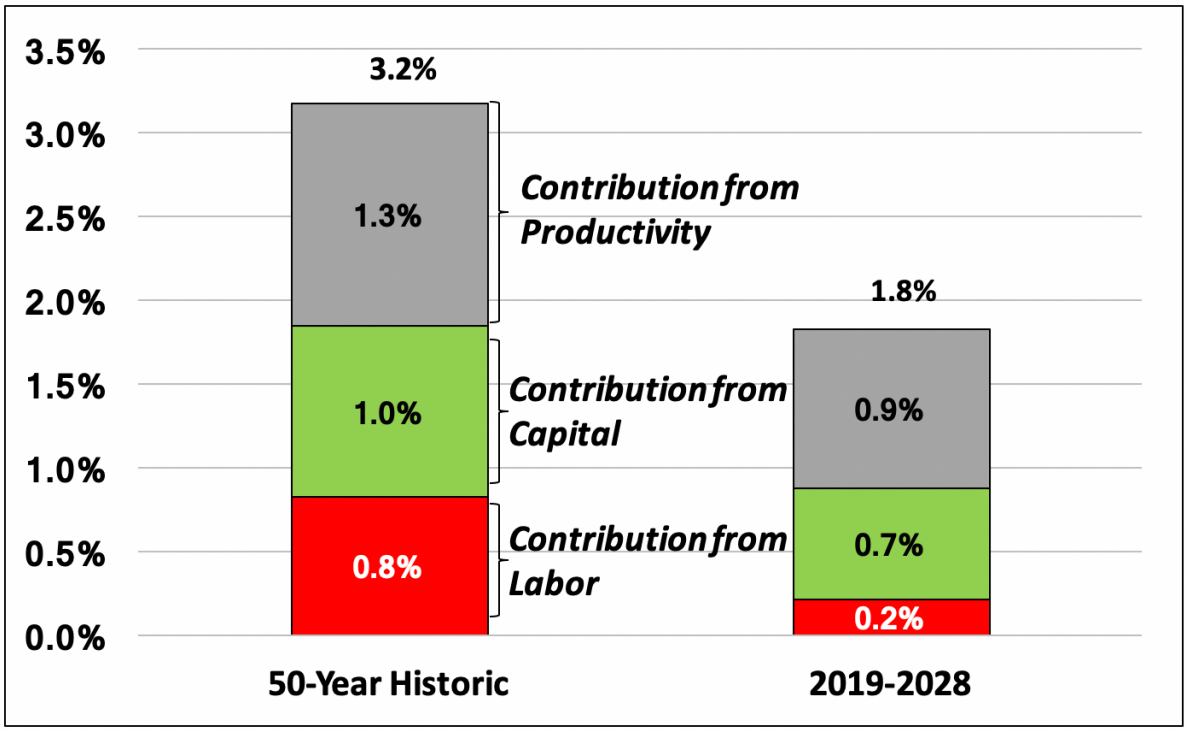
Pro-Growth Social Security Reform should be an integral part of a broad economic growth strategy. Individual decisions over how much to save and work are intertwined with retirement choices and are inexorably linked to the Social Security program. Federal finances are similarly tied to those of the Social Security program. A thoughtful plan to improve Social Security therefore has great potential to improve the economy and increase national income.

The Coming Economic Slowdown

Since 1950, the U.S. economy has grown by an inflation-adjusted average of 3.2 percent per year. While growth in 2018 is likely to be in line with this historical average, nearly all forecasters expect a marked – and permanent – slowdown in the coming years and decades.[1]

The Congressional Budget Office (CBO) projects annual economic growth to average 1.8 percent per year over the next decade and 1.9 percent over the long term. Other forecasters, from the Board of Governors of the Federal Reserve, to Goldman Sachs, to the Blue Chip survey of forecasters, expect long-term growth between 1.7 and 2.0 percent per year.[2]

Fig. 1: Subcomponents of Real GDP Growth (Percentage Points)



Source: Committee for a Responsible Federal Budget estimates based on CBO data.

Long-term economic growth results from increases in labor, capital, and productivity. We estimate that all three factors will grow slower than they have in the past under CBO's projections, with the slowdown in labor growth responsible for half the reduction in projected growth relative to historic rates.

Instead of labor contributing 0.8 percentage points to growth as it has over the past 50 years, we estimate it will contribute just 0.2 percentage points – a quarter of its historical contribution. Meanwhile, growth in capital – such as machines, buildings, software, and equipment – will contribute 0.7 percentage points annually to growth, instead of 1.0 percentage points. And total factor productivity – the measure of how efficiently labor and capital work together – will contribute 0.9 percentage points to growth, compared to a historic 1.3 percentage points.

The aging population is a key driver of the slowdown in these factors. About 4.2 million Americans turn 62 each year; roughly the same amount are born annually.[3] The result is virtually no increase in the labor force – except from immigration. Indeed, the share of the population participating in the labor force is projected to decline from 67 percent in 2000 to less than 60 percent by 2050.[4]

Population aging will also contribute to a slowdown of capital growth. As Americans get older, a larger proportion will collect Social Security and Medicare and a smaller proportion will contribute significant tax revenue, resulting in increased federal deficits that "crowd out" private investment. Savings and investment – the sources of capital generation – also tend to decline in an aging society as older individuals withdraw and consume their savings rather than contribute to them. In addition, there is some evidence that population aging may be a factor in the recent productivity slowdown.[5]

Clearly, the aging of the population will lead to slower economic growth than what the country has experienced in the past. Thoughtful solutions are needed to defray these negative effects.

The Need to Secure Social Security

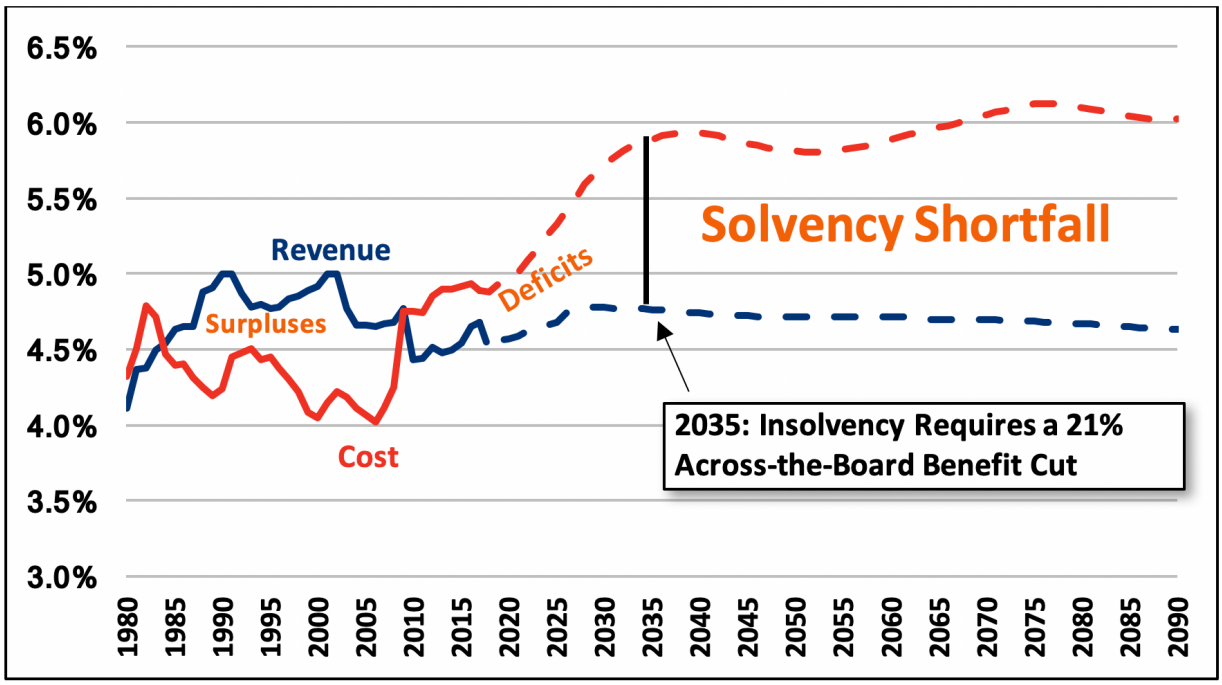
Perhaps the most visible consequence of the aging population is the looming insolvency of the Social Security program, which provides cash benefits to older Americans.

Social Security benefits are funded primarily through a dedicated payroll tax paid by workers. Yet as the ratio of retirees to workers rises (from 1:5 in 1960 to 1:3 today, headed toward 1:2), benefits are increasingly outpacing revenue (or revenue is increasingly falling short of benefits).[6] In the year 2000, the Social Security program ran a *surplus* of nearly 0.9 percent of GDP. In 2018, the program ran a deficit of about 0.4 percent of GDP. And by 2035, the program's Trustees project it will run a deficit of 1.1 percent of GDP.[7]

By that point, ongoing deficits are expected to deplete the program's trust fund reserves – which have accumulated as a result of past surpluses.[8] The law does not allow benefits to be paid in excess of revenue and reserves, so current law requires an across-the-board 20 to 25 percent benefit cut upon insolvency. (The Trustees project insolvency in 2035; CBO projects 2032.)

Thought of another way, a 51-year-old today will face a deep immediate cut in their benefits as soon as they reach the normal retirement age under current law (per the Trustees' projections). Today's youngest retirees will face that cut when they turn 78. The cut will not discriminate by income, age, or need.

Fig. 2: Social Security Trust Fund Cost and Income, Historical and Projected (Percent of GDP)



Source: Social Security Administration.

To avoid an abrupt and potentially disastrous benefit cut, legislative changes must ensure Social Security spending and revenue are ultimately brought in line. Experts disagree over the mix of tax and benefit changes that should be adopted. However, there is virtually unanimous agreement about the need to act soon in order to phase in changes gradually, spread them fairly across generations, take advantage of the cushion provided by the current trust fund, and give workers time to plan and adjust.

Putting the Growth in Pro-Growth Social Security Reform

Avoiding the dire consequences of Social Security insolvency is an imperative, but it is also an opportunity. The best way to reverse the negative economic effects of population aging is to promote work, increase savings, and slow the growth of the national debt. The Social Security program is uniquely situated to assist in accomplishing all three goals.

Social Security is the single largest federal government program as well as the greatest source of retirement income for most seniors.[9] Meanwhile, the Social Security payroll tax is the second largest source of government revenue and the single largest tax paid by the majority of Americans.[10] The structure of the Social Security program thus has huge behavioral and economic consequences.

Social Security provides workers with powerful – though sometimes confusing – signals and incentives about how much to save, how many years to work, and when and how to retire.[11] Social Security also has a substantial impact on the unified budget deficit and the amount of debt the government must issue each year.

Pro-Growth Social Security Reform can use these signals and incentives to its advantage to support a more productive workforce and to better promote work and savings while reducing debt.

Indeed, economists have written for decades on the potential for Social Security reform to improve incentives to work and save. Back in 1979, Martin Feldstein began analyzing the effects of Social Security on private savings – and it began a two-decade long debate over what to do with the program's surpluses focused heavily on ideas to increase national savings.[12] The interaction between Social Security, work, and retirement has been studied as long as the program has existed, and suggestions to promote work or encourage delayed retirement are often put forward. For example, Charles Blahous's 2009 piece *Social Security and Work* proposes a number of measures to improve both solvency and work incentives within the program.[13]

Despite awareness of the relationship between Social Security policy and factors of growth, it is rare that Social Security reform packages focus specifically on accelerating economic growth; we are not aware of any comprehensive reform plan that prioritizes macroeconomic outcomes through a holistic approach to accelerate growth.

Social Security reform plans more often aim to achieve a variety of important goals. A thoughtfully designed *Pro-Growth Social Security Reform* plan could achieve solvency, improve retirement security, increase income and wealth, improve fairness within and between generations, *and* accelerate economic growth.

A Framework for Pro-Growth Social Security Reform

To assure benefits are paid in full, policymakers will need to enact a plan to make Social Security solvent. As they develop such a plan, they should prioritize reforms to promote economic growth.

A pro-growth agenda is desperately needed in order to assure continued improvements in standards of living. Faster economic growth can also help to improve Social Security solvency, strengthen retirement security, reduce federal debt levels, expand wealth, reduce poverty, and improve inter- and intra-generational fairness.

To achieve faster economic growth, Social Security should promote work, savings, and investment – thus increasing both labor and capital.

In this paper, we propose a four-part *Pro-Growth Social Security Reform* framework:

1. **Promote delayed retirement and productive aging** by increasing Social Security's retirement ages while insulating vulnerable workers with an Age 62 Poverty Protection Benefit (62-PPB) to boost benefits for low-income workers.
2. **Reward work at all ages** by counting *all* years of work toward benefits and calculating benefits based on each year's earnings rather than average 35-year lifetime earnings (this policy is sometimes called the "mini-PIA").
3. **Increase savings and investment** by automatically enrolling workers in add-on "Supplemental Retirement Accounts" (SRAs) and placing a share of wages, on top of the payroll tax, in those SRAs unless a worker chooses to opt out.
4. **Improve certainty and sustainability** by making Social Security sustainably solvent through a mix of progressive revenue and benefit adjustments.

In addition to these four policy levers, we also discuss other pro-growth policies that could be part of, or a complement to, Social Security reform. We encourage policymakers and researchers to explore these ideas in more detail.

A plan incorporating the elements in our framework has the potential to substantially improve economic growth while also enhancing retirement security, reducing poverty, limiting growth in government debt, and improving fairness within and between generations.

While we support the specific elements put forward in this framework, the broader goals are far more important than the policy details.

Promote Delayed Retirement and Productive Aging

Labor force growth is key to growing the economy. Perhaps the easiest way to improve labor force growth among the current population is to increase participation among older Americans.

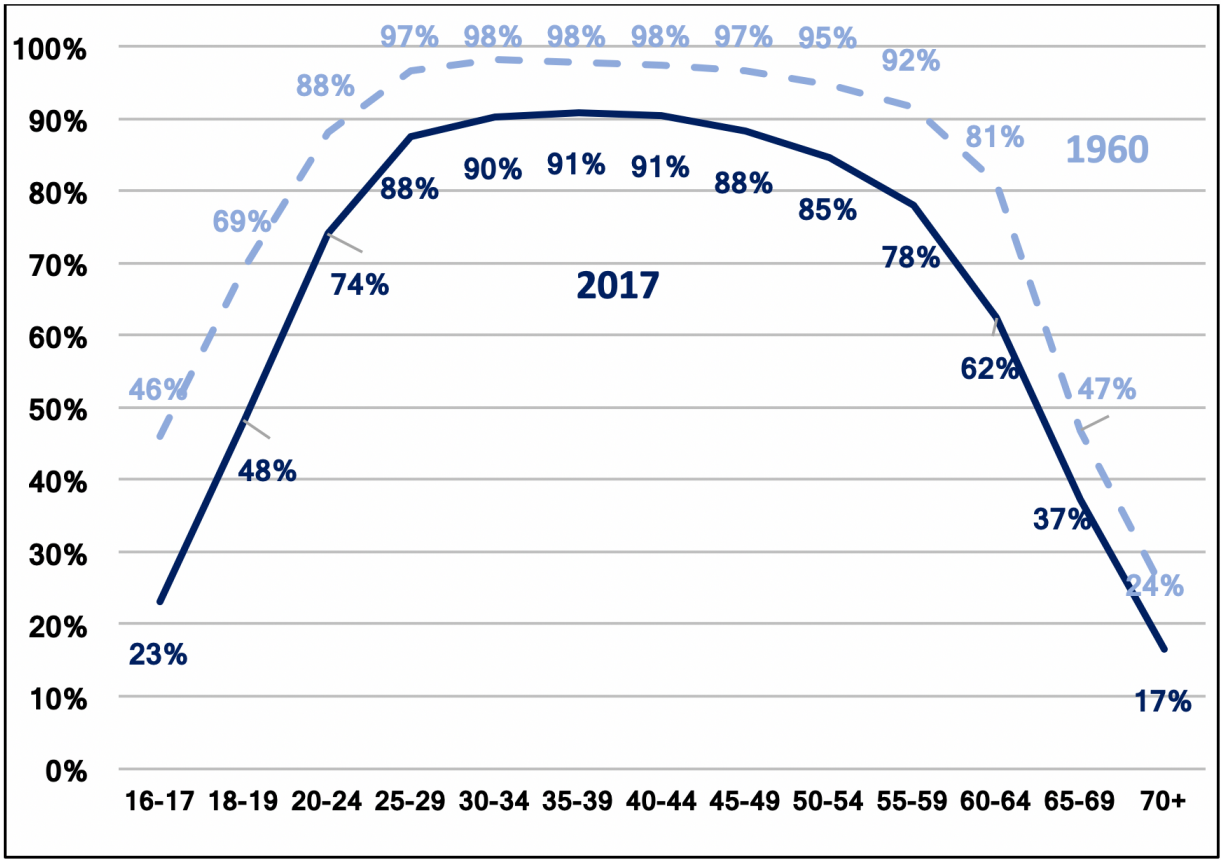
Americans in their 60s are only about half as likely to work as adults under 60; those over 70 are only one-fifth as likely to work.[14] For this reason, older Americans have been described by some as "the largest underused pool of human resources in the economy."[15]

Recommendation #1: Increase the Retirement Ages while Insulating Vulnerable Workers with an Age 62 Poverty Protection Benefit (62-PPB)

To be sure, one would expect employment to decline with age. But a smaller share of older Americans work today than half a century, even as life expectancy has risen dramatically and the nature of employment and technology has made it easier to work at older ages.

Whereas over 60 percent of 65-year-old men worked in 1965, today only half do. Adjusting for growth in life expectancy using Damir Cosic and Eugene Steuerle of the Urban Institute's "alternative measures of age," only a quarter of men in this age group are currently working.[16] In other words, employment has fallen by more than half amongst this (relatively representative) cohort of older Americans.

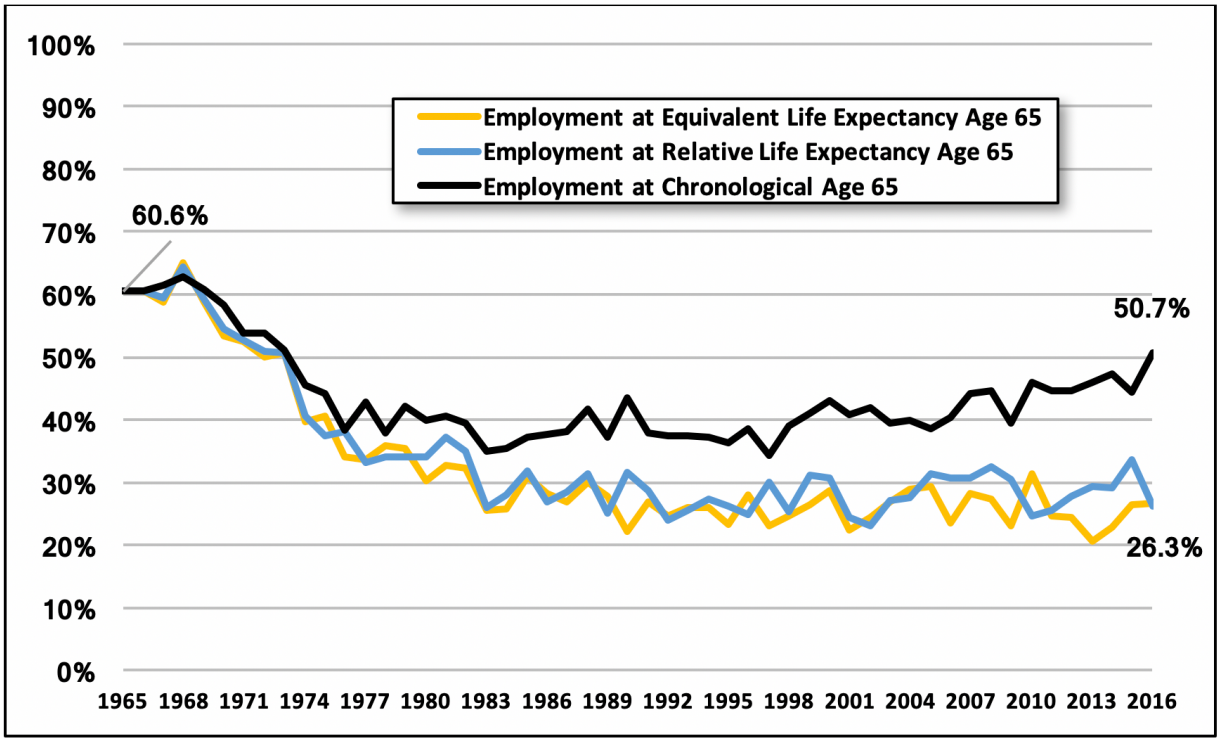
Fig. 3: Male Labor Force Participation by Age Range (Percent)



Source: Bureau of Labor Statistics.

In light of this decline, public policy should support those Americans who choose to delay their retirement in order to work more at older ages. Perhaps more importantly, policy should stop treating retirement as a binary choice between working and not, instead encouraging phased retirement, encore careers, bridge jobs, gig work, post-career consulting, and other flexible models of semi-retirement that allow people to maintain some attachment to the workforce.

Fig. 4: Male Employment at Age 65 with Different Age Definitions, 1965-2016 (Percent Employed)



Source: Cosic and Steuerle (2018).

Tapping into the underutilized talent pool of older workers has the potential to significantly improve the lives of these workers and the economy.[17] A one-year delay in retirement, for example, would increase average retiree wealth by 5 percent, average retirement income by 9 percent, and the size of the macro-economy by 2 to 3 percent.[18] Working longer has also been shown to reduce mortality, improve health outcomes, and increase happiness.[19]

Fortunately, Social Security has at least two powerful levers to promote delayed retirement – the Earliest Eligibility Age (EEA) and the Normal Retirement Age (NRA). Currently, nearly two-thirds of retirees begin collecting benefits either at age 62 (the EEA) or age 66 (the NRA) – and research shows benefit claiming is highly correlated with retirement.[20] Given that workers can begin collecting benefits any time between age 62 and 70, the fact that two-thirds do so at these two ages demonstrates the EEA and NRA have significant signaling effects. Recent increases in the average retirement age, coinciding with a one-year increase in the NRA, provide further evidence of this effect.[21]

Had the Social Security age grown with life expectancy since the program's establishment, the current retirement age would be between 72 and 81 today, depending on the measure used.[22] While enacting such a drastic increase today is neither necessary nor desirable, a modest increase in Social Security's retirement ages could help promote delayed retirement, which would improve economic growth and Social Security's finances.

Yet such an increase may be viewed as unfair. While average life expectancy has risen dramatically over the past century, it has not grown equally for all income groups.[23] And while it is now far easier for many workers to remain in the workforce longer, some workers – particularly those in physically demanding jobs – still have trouble working much past age 62.

Raising the retirement ages does *not* – as some claim – disproportionately affect lower earners or regressively cut benefits. CBO, the Social Security Administration's (SSA) Office of Retirement Policy, the Urban Institute, and others have all shown that raising the NRA has a roughly proportional effect on lifetime benefits for all income groups.[24] Still, lower-income workers may have more difficulty bearing these cuts or delaying their retirement in order to avoid them.

In order to both promote growth and help the most vulnerable workers and retirees, we propose to raise the early and normal retirement ages while also offering an Age 62 Poverty Protection Benefit (62-PPB) to those who need it.

Under current law, the NRA is scheduled to rise by two months per year until it reaches 67 in 2022. We propose to continue this increase in the NRA as well as the EEA, until they reach 68 and 63, respectively. The age increases would apply to all workers regardless of income, though some workers would be insulated from the financial impact of this change (as we explain later). Further increases in one or both ages could also be considered.

Once the increases in Social Security's EEA and NRA are phased in, we propose indexing all of Social Security's ages to rising life expectancy so that future Americans on average spend a constant ratio of their adult lives in retirement.[25] Under current projections, this would mean a one-year increase every quarter century – though SSA would be charged with regularly adjusting age increases to account for actual changes in life expectancy.

At the same time, we propose eliminating the maximum limit on the delayed retirement (currently 70). Workers should not be forced to retire or collect Social Security benefits at any age, and under our plan annual benefits would continue to rise the later a worker began collecting.

Because an NRA increase would reduce benefits for some vulnerable retirees, our proposal would couple the increase with an Age 62 Poverty Protection Benefit (62-PPB). Effectively, this benefit would let any full-career worker collect a benefit sufficient to keep them above the poverty line or delay retirement in exchange for a more generous PPB.[26]

Like traditional "minimum benefit" proposals, the 62-PPB would result in higher payments for retirees collecting meager benefits under current law. But whereas traditional minimum benefit proposals offer a fixed payment at the NRA and reduce the benefit for those who retire earlier, the 62-PPB offers a fixed payment at age 62 and actuarially *increases* the benefit for those who retire later. Under our plan, a full-career retiree would receive a benefit equal to 100 percent of poverty at age 62, 123 percent at age 65, and 154 percent at age 68. These benefits would remain fixed, even as the NRA rose beyond 68.

Importantly, this design has the effect of insulating low-income workers from any adverse benefit effects due to an increasing NRA while limiting the effect on middle-income workers. This design also helps a larger share of retirees over time as the retirement ages rise.

The 62-PPB would also support vulnerable workers who may not be able to work longer by allowing *any* worker – regardless of income – to collect a modest benefit at age 62. Unlike the EEA and NRA, the 62-PPB would be frozen at age 62 – regardless of increases in life expectancy.

For low-income workers who would otherwise retire into poverty, the 62-PPB would offer permanent benefits starting at age 62. For most workers who would otherwise receive higher benefits, the 62-PPB would offer a temporary poverty-level benefit until the EEA. Upon reaching the EEA, these retirees could collect their regular benefit, though it would be reduced to offset their collections prior to the EEA.[27]

Thought of another way, our proposal increases retirement ages for everyone but insulates low-income workers from the benefit reduction associated with this age increase and offers all workers a safety net in the form of a poverty-level benefit that can be taken at age 62. Simultaneously, our proposal would provide a higher benefit for many low-income workers who currently receive benefits below the poverty level.

The *Pro-Growth Social Security Reform* framework would thus offer important support and protection to those in need while sending powerful signals to encourage delayed retirement.

This increase should be coupled with a series of other policies outside of Social Security to encourage productive aging. Moving from a model of binary retirement at late middle age to flexible retirement at old age could substantially increase labor force participation and labor productivity and, in turn, grow the economy.

Reward Work at All Ages

In addition to promoting delayed retirement, a truly pro-growth Social Security plan should encourage work in the years prior to retirement.

Social Security imposes an "Implicit Social Security Tax Rate" on workers, which includes the loss of income from the payroll tax but also the future gains in retirement income as a result of accruing Social Security benefits. The lower the implicit rate, the greater the incentive to work.

Social Security's current benefit formula offers a very low (and often negative) tax rate for workers early in their careers but a higher implicit tax rate for longer career workers – especially those with more than 35 years of earnings.

Goda, Shoven, and Slavov (2009) have estimated that a high earner faces an implicit tax rate of about 4 to 5 percent for their first 23 years of work, 6 to 8 percent for their next 13 years, and a rate of almost 11 percent after 35 years of work. Low- and middle-income earners face an even sharper increase in rates, beginning with an implicit rate of -5 percent early in their careers and ending up over 10 percent if they continue to work a full career.[28] Other analyses have generated relatively similar results.[29]

These and other analyses have found that high implicit tax rates for long-career workers – combined with direct taxes, availability of spousal or retirement income, and other factors – encourage workers to exit the labor force early and otherwise reduce time in the workforce.[30]

Fortunately, the high implicit tax rates Social Security places on long-career workers is the result of two features of the Social Security program that could be adjusted without undermining the structure of Social Security or reducing retirement security.

Recommendation #2: Calculate Benefits Based on Each Year of Work Rather than Lifetime 35-Year Average Earnings

First, retirement benefits are calculated based on a worker's highest 35 years of (wage-indexed) earnings, with a ten-year minimum; years with no earnings are counted in that average. As a result, a worker's 35th year of work can significantly increase their average earnings (and thus benefit levels), but their 36th year of earnings may have little effect. Thus the incentive to continue working beyond 35 years is low. Similarly, workers with fewer than ten years of covered earnings get no benefits, reducing their incentive to work.

Second, the progressive Social Security formula is applied based on lifetime average earnings rather than individual year earnings. The formula is designed to pay retirees 90 percent of their first (roughly) $11,000 in average wages, 32 percent of their next $56,000 in average wages, and 15 percent of remaining wages up to about $133,000. But because wages are determined based on a lifetime average, the formula actually pays workers 90 percent of their early years of wages, 32 percent of their later years, and, for many workers, 15 percent of their latest years of work.

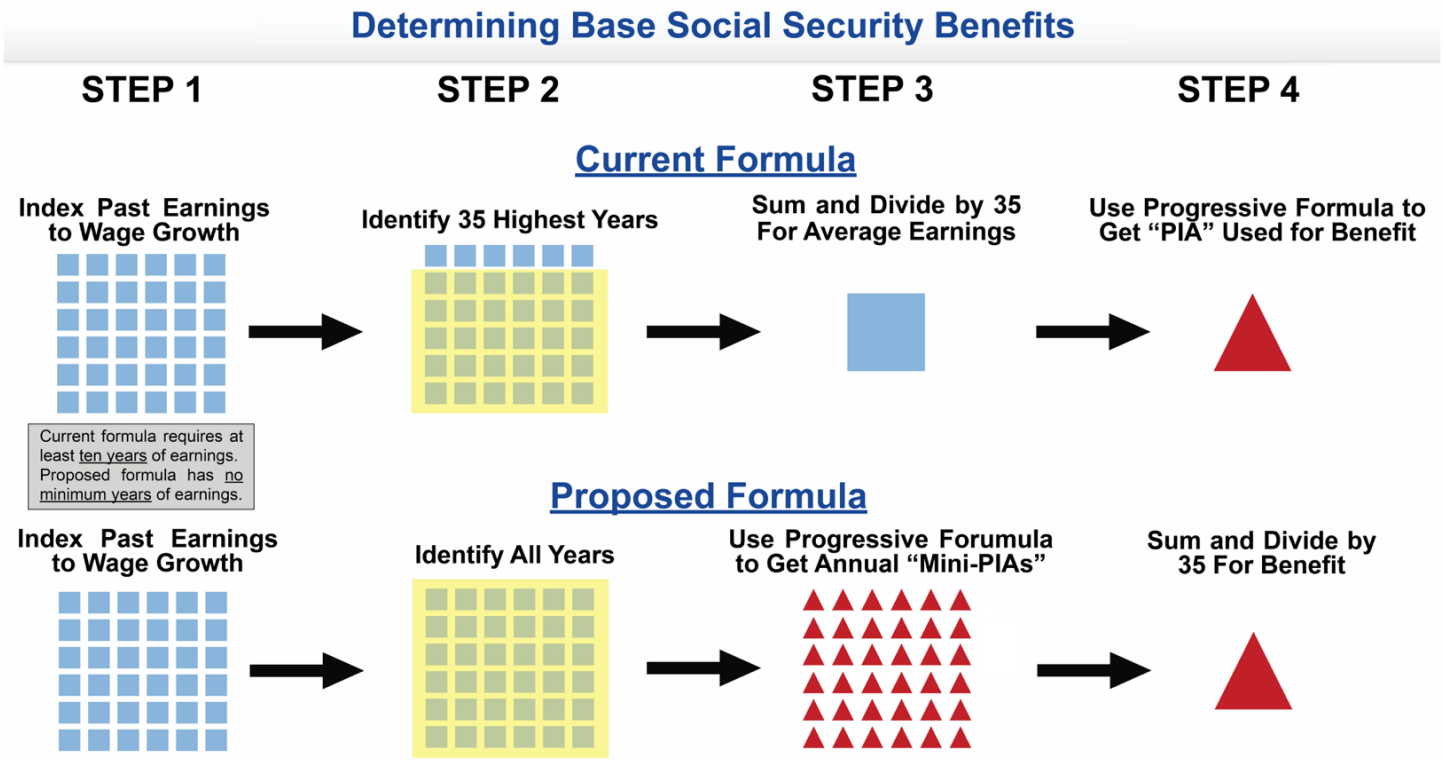
This formula makes work less attractive over time, discouraging work on what economists call "the extensive margin." It also creates some inequities by unfairly treating short-career, high-earning workers the same as long-career, low-earning workers. Worthwhile proposals to make Social Security's benefit formula more progressive often exacerbate this problem by further reducing the return on work.[31]

In order to promote growth and encourage more work prior to retirement, we propose counting all years of earnings toward benefits and applying the progressive benefit formula to each year of earnings through a policy known as mini-PIA.

Under our proposal, a worker would not need ten years of covered earnings to receive Social Security benefits, and all years of work – not just the highest 35 – would count toward benefits.

Our proposal would also reverse the way that benefits are calculated. Under current law, past (indexed) wages are first averaged together, and then a progressive benefit formula is applied to them to generate a Primary Insurance Amount (PIA). Under our proposal, that progressive benefit formula would be applied to each year of (indexed) wages, and then those mini-PIAs would effectively be averaged together. *(Our proposal would technically add all mini-PIAs together and then divide by 35 in order to count all years of work, rewarding careers longer than 35 years.)*

Fig. 5: Illustrative Calculation of Initial Benefits



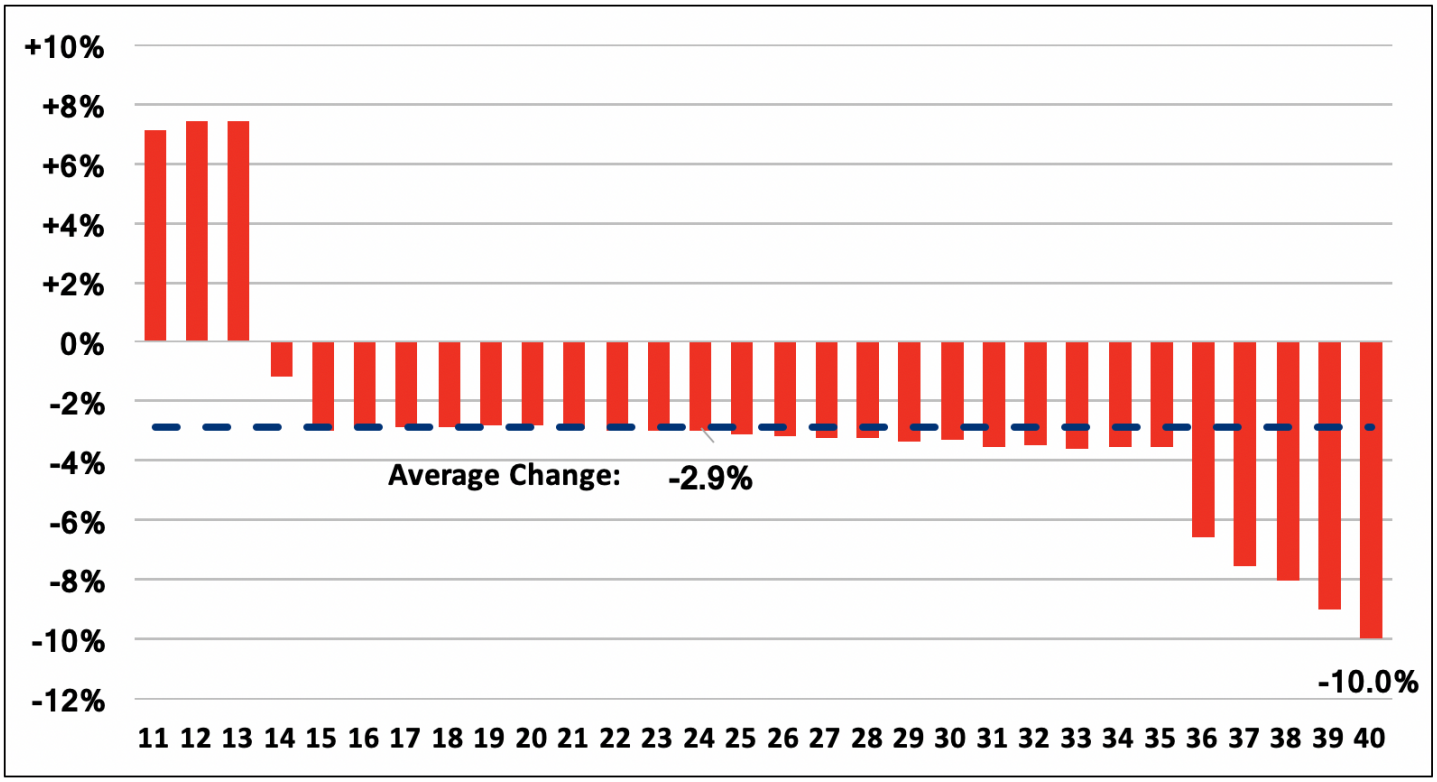
Versions of this mini-PIA proposal have been around since at least 1982 and have been suggested in their current form since at least 2009.[32] More recently, the mini-PIA was incorporated into Ways and Means Social Security Subcommittee Chairman Sam Johnson's Social Security Reform Act as well as the bipartisan Conrad-Lockhart Retirement Security Commission's recommendations.[33]

For a worker with 35 years of steady earnings, this proposal would provide the exact same level of benefits as with current law. Meanwhile, this change would actually *increase* benefits for many workers with over 35 years of earnings because all additional years of earnings would count toward higher benefits. It would also increase benefits for workers with fewer than ten years of covered earnings, who receive *no* benefits under current law.

Benefits would be lower than current law for some workers with less than 35 years of work and somewhat uneven earnings – particularly those with several years of very high earnings who don't respond to the change by working more years. However, lower-earning individuals would largely be protected from cuts by the 62-PPB described in the prior section.

For nearly all workers, there would be a greater incentive to work more years – particularly later in their careers. Rather than facing low implicit tax rates early in their career that rise with additional years worked (and especially after 35 years), workers under our proposal would face relatively low implicit tax rates throughout their career.

Fig. 6: Change in Implicit Tax Rates Under Goda-Shoven-Slavov (Rates by Career Length in Years)



Source: Goda, Shoven, and Slavov (2009). Note: rates for an earner assuming average annual income.

Goda, Shoven, and Slavov (2009) modeled the effects of a policy similar to ours, which would lower implicit tax rates for most workers. The illustrative average worker under their plan would see their taxes cut by 80 percent – facing an average tax rate of just 0.7 percent over years 11 to 40, compared to 3.6 percent under current law. That worker would face a modestly higher tax rate for years 11 through 13 of work but lower tax rates every year thereafter and sharply lower tax rates after their 35th year of work. Workers with higher and lower incomes would also face significant cuts in their implicit tax rate.

While we have not modeled the implicit tax rates under our proposal, we expect a somewhat similar pattern.

These lower rates would improve the incentive to work more years, which would in turn increase Social Security benefits, retirement savings, and overall welfare for many workers. Increased work would also help to support labor force growth and thus increase the size of the economy.

Increase Savings and Investment

With an aging population, improvements in economic growth must come not only from faster labor force growth but also from improvements in economic output per person. Key to improving per-person output is expanding the total supply of capital in the economy, which means increasing savings and investment.

Conventional economic theory and empirical evidence point to a direct link between higher rates of savings and faster long-term economic growth. Higher savings translates into greater investment, which ultimately flows through to more factories, tools, machines, software, housing, and other physical capital as well as more human capital in the form of worker training, research and development, and overall entrepreneurship. These improvements lift the size of the economy and increase average incomes.

Recommendation #3: Automatically Enroll Workers into a "Supplemental Retirement Account" (SRA) on top of Social Security, with the Choice to Opt-Out

As a retirement program, the Social Security program is tightly intertwined with people's savings decisions. Because workers save largely to build retirement wealth, the availability of Social Security results in less total savings than would otherwise be the case. A survey of empirical studies from CBO found that the average American reduces savings by as much as 50 cents for every dollar of "Social Security wealth," a figure that is even larger for higher earners.[34] Because Social Security is funded on a pay-as-you-go basis, this reduction in private savings is not offset with an increase in public savings.

Pro-Growth Social Security Reform should re-focus the program to encourage higher savings rates. Doing so would have a three-fold benefit of improving retirement security, increasing average wages, and growing the overall economy. It would also make it far easier for workers to manage any future adjustments in benefits needed to secure Social Security solvency.

In order to promote savings and investment, we propose automatically enrolling workers into optional "Supplemental Retirement Accounts" (SRAs) to help them save for retirement.

SRAs would serve as "add-on" retirement accounts funded with annual contributions on top of the payroll tax in order to finance retirement savings in addition to Social Security benefits.

While precise design details could vary, we suggest an automatic deduction of 2 to 3 percent of wages, which could either come entirely from the worker or be split between employer and employee. Enrollment would be automatic, but workers could choose to affirmatively opt out at any time for a specified length of time after initial enrollment. We suggest capping that length of time, thus requiring workers to reaffirm their decision not to save for retirement every few years.

SRA contributions would be placed in a retirement account managed similarly to the Thrift Savings Plan accounts available to federal employees. Workers would be allowed to choose between a small number of well-diversified, low-fee investment funds, with the default being a "lifecycle fund" that invests based on how many years the worker is from retirement.

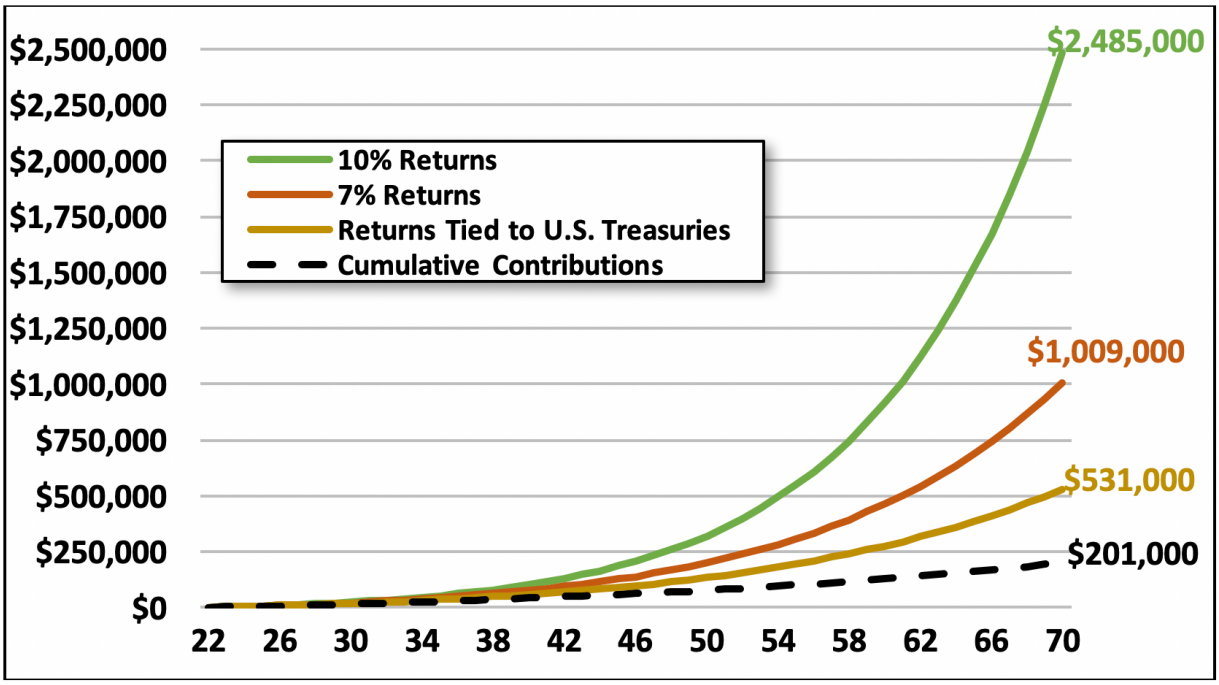
SRAs would be the property of the worker who contributes to them (and their spouse). While access to funds would be limited to retirement, workers could borrow against them for certain investments and

pass them on to heirs.[35] Upon retirement, workers would be allowed purchase an annuity with their SRA assets, withdraw funds over time, or let their accounts continue to grow in the hopes of passing on a nest egg.

SRAs must be "add-on," rather than "carve out," to ensure they are truly pro-growth. Retirement accounts on top of the payroll tax would lead to greater investment by increasing national savings. Accounts that replace the payroll tax, on the other hand, would have little effect on national savings – since higher personal savings would be offset by greater government borrowing. A universal 3 percent carve-out account would add roughly $3 trillion to the national debt over the next decade alone, or roughly $2 trillion if two-thirds of workers enrolled.[36] The economic cost of this higher debt would be substantial. In addition, carve-out accounts could advance Social Security's insolvency date by six to eight years.

We also believe SRAs should be voluntary, not mandatory. While mandatory accounts would surely do more to increase national savings, they would also discourage work since some workers would view them as a tax. Mandatory accounts could also place an unnecessary burden on low-income workers. Because of Social Security's progressive nature (enhanced in our proposal), many low-income workers are already slated to receive retirement income comparable to their working income – forcing them to further reduce a modest income today in exchange for funds they won't need in the future could do serious harm to their standard of living.[37] And while higher income workers could offset a mandatory contribution by saving less in a 401(k) or IRA, low-income workers are less likely to have that option and instead would need to either reduce their consumption or take out consumer loans (i.e., credit card debt) at very high interest rates. By giving workers the options to opt out of SRA contributions, our plan would allow workers to collect higher income in the years that they truly need it.

Fig. 7: Hypothetical SRA Balance, Ages 22 to 70 (Nominal Dollars)



Source: Authors' calculations based on CBO data.

Assuming steady contributions, SRAs have the potential to build significant wealth. As an example, take a 22-year-old in 2019 who makes the average wage throughout their career, contributes 3 percent per year, and works until age 70. We estimate a portfolio of only federal government bonds would

grow to $530,000 upon retirement. A portfolio of stocks with a 10 percent average annual return – almost a point lower than the average return from the Thrift Savings Plan's "C Fund" – would grow to nearly $2.5 million. More realistically, a diversified mix of stocks and bonds would result in retirement wealth somewhere in between.

Adjusting for inflation, these estimates still suggest retirement wealth of anywhere between $200,000 and $950,000 assuming annual contributions and a long career. Fewer years of work or years opting out of contributions would reduce these estimates, which are of course hypothetical, as all investment comes with risk and volatility.

In addition to increasing wealth, SRAs would increase national savings and thus investment. While some workers would surely reduce their 401(k) contributions or other saving to offset new SRA contributions, we expect a significant increase in total savings. This should be true for many lower- and middle-income workers, who currently contribute little toward retirement savings, as well as higher-income workers, who may need to save more to account for reductions in their future Social Security benefits (discussed in the next section).[38]

The automatic nature of these accounts is particularly important to foster higher savings rates. Significant research in the field of behavioral economics has found that workers who are automatically enrolled in retirement accounts are unlikely to opt out compared to those who must affirmatively enroll, particularly if an employer match is offered.[39] The "out-of-sight, out-of-mind" nature of auto-enrollment might also reduce the likelihood that workers reduce savings elsewhere.

Even a modest increase in the overall savings rate could lead to a significant improvement of retirement wealth, capital investment, and economic growth.

Improve Certainty and Sustainability

While the structural improvements to Social Security described above can improve labor and capital growth, perhaps the most important way to promote economic growth is to assure Social Security can continue to pay benefits without interruption.

Under current law, the Social Security Trustees project the program will become insolvent in 2035, only 16 years from today.[40] Over the course of that period, the program will run significant deficits and thus draw from its trust fund – requiring the federal government to issue substantial new debt in the process. Upon insolvency, the law calls for an automatic across-the-board cut of as much as 20 to 25 percent to bring spending and revenue in line.

Given the number of workers and retirees who depend on Social Security, policymakers owe it to Americans of all ages to ensure the program can pay scheduled benefits and give them time to plan and adjust for any changes to current policy.

Restoring solvency would also help to improve economic growth by addressing two current obstacles to greater prosperity – a rising national debt and a high level of individual uncertainty over potential retirement income.

Recommendation #4: Make Social Security Sustainably Solvent Through a Combination of Progressive Tax and Benefit Changes

Over the next three decades, CBO projections suggest the national debt will roughly double as a share of the economy – from 78 percent of GDP today to roughly 160 percent by 2050.[41] We project debt will rise further to 360 percent of GDP by 2093.[42]

High and rising debt is likely to do significant long-term harm to the economy. As the government issues more debt, savers will purchase more government bonds, which "crowd out" their purchases of productive private investments. The result of this crowd-out is likely to be higher interest rates, lower overall capital stock, and slower economic growth.

CBO estimates rising debt between 2029 and 2048 will increase interest rates by 0.5 percentage points and reduce the projected size of the economy by 2.5 to 3 percent in 2048.[43] CBO also warns that rising debt might hinder the government's ability to fight a recession or even lead to a fiscally-driven financial crisis.

Because CBO's projections assume Social Security payments will continue regardless of trust fund constraints, restoring solvency could reduce projected debt levels by 25 percent of GDP in 2050 and 120 percent in 2093.[44]

On top of the fiscal risks our country faces, continued policy uncertainty hinders economic growth. Among the public, there is broad understanding that Social Security's finances are unsustainable but little sense of what combination of tax, benefit, and borrowing changes will be adopted to restore solvency.[45]

A growing body of research suggests this uncertainty reduces overall welfare. For example, studies from Gomes, Kotlikoff, and Viceira (2012); Calendo, Gorry, and Slavov (2015); and Luttmer and Samwick (2018) estimate welfare losses of 0.6 percent of lifetime resources, 1 percent of lifetime consumption, and 10 percent of lifetime Social Security benefits, respectively.[46] These estimates equate to a welfare loss in the neighborhood of half of a percent of GDP each year. Research also suggests uncertainty over Social Security's future results in less stock investment and lower overall savings, either of which could reduce the overall size of the economy.[47]

In order to slow the growth of the national debt and improve certainty, we recommend restoring Social Security solvency through a targeted mix of revenue and benefit adjustments.

Because policy options to address the remainder of the shortfall are mostly well known and require political consensus more than policy expertise, we recommend the details be based on where political agreement can be reached.

As a starting point, our recommendations to raise the retirement ages and calculate benefits annually for all years of work would close about one-sixth of Social Security's shortfall. Policymakers could easily modify these proposals to significantly more. For example, they could increase the retirement ages by two years instead of one, and they could divide the sum of annual mini-PIAs by 38 or 40 instead of 35. Even in this case, further adjustments would be needed to attain solvency.

In our view, any solvency package should achieve at least four goals. First, it should be designed to attain "sustainable solvency" – meaning it should not only shore up the trust fund for 75 years, but ultimately it should bring spending and revenue closely in line so that solvency is likely to extend beyond the projection period. Second, the package should be progressive so that higher-income Americans contribute more substantially to the solution and vulnerable populations are protected. Third, changes should be enacted immediately and phased in gradually in order to maximize generational fairness and give workers time to plan and adjust. Lastly, a solvency package should be designed with economic growth in mind in order to re-enforce rather than undermine other elements of a pro-growth reform.

To achieve these goals, we suggest policymakers adopt the following policies:

- **Raise the Taxable Maximum.** Currently, the payroll tax (and benefit calculation) applies to a worker's first $132,900 of wages. While that taxable maximum grows with wage growth, it has eroded over time relative to total wages. A quarter-century ago, roughly 90 percent of total wages in the economy were subject to the taxable maximum, compared to 83 percent today. Policymakers should increase the taxable maximum.[48]

- **Slow Benefit Growth for Higher Earners.** While the Social Security benefit formula is progressive relative to lifetime income, wealthy seniors still receive far more benefits than low-income seniors. Meanwhile, benefits for all cohorts grow substantially (roughly with wage growth) over time. Policymakers should adopt a new benefit formula that would gradually but significantly slow benefit growth for higher earners while only modestly affecting middle earners and accelerating growth of benefits for lower earners.

- **Broaden the Payroll Tax Base.** While most wage income is subject to the payroll tax, some remains exempt. For example, employee contributions toward "cafeteria plans" to finance health insurance and other benefits are not currently subject to the payroll tax. And certain workers –

including certain state and local government workers, graduate students, and some classes of authorized immigrants – don't pay the payroll tax. Policymakers should broaden the payroll tax base to cover currently-exempt payroll.

- **Adopt an Accurate Measure of Inflation.** Social Security beneficiaries receive annual cost-of-living adjustments (COLAs) so that their benefits keep pace with inflation. However, benefits are indexed using a flawed measure of inflation that overstates the price growth that both workers and seniors face. Recently, policymakers adopted a more accurate measure known as chained CPI to index provisions in the tax code. Policymakers should adopt the same measure for Social Security (and other) COLAs.[49]

While we have no view on the precise ratio of these policies, we have developed an illustrative plan that closes roughly half the shortfall with benefit changes and half with revenue changes. Other policies in addition to (or instead of) the four above should also be considered.[50] Our online tool at www.SocialSecurityReformer.org features a number of solvency-related options, and the following section of this paper suggests additional pro-growth reforms.

Fig. 8: Illustrative Social Security Solvency Package

	75-Year Solvency Gap Closed	Shortfall Closed in 75th Year
Enact Retirement Age, 62-PPB, Mini-PIA, and Computation Years Policies from *Pro-Growth Social Security Reform* Framework	15%	25%
Increase the Taxable Maximum as in Conrad-Lockhart Commission	30%	25%
Adopt Progressive Benefit Formula from Social Security Reform Act	30%	35%
Broaden the Payroll Tax Base to Include Cafeteria Plan Income, New State & Local Government Workers, and Other Exempt Income	20%	5%
Adopt Chained CPI to Calculate COLAs	20%	20%
Total Improvement in Social Security Finances	**115%**	**110%**
Memo: Improvement Assuming 0.25% Increase in Wage Growth	***130%***	***135%***

Note: estimates are rough and rounded.

Intentionally, our illustrative plan 'over-solves' Social Security's funding problems. We see substantial risk that the program faces a shortfall larger than the Trustees estimate, particularly considering that CBO estimates a 75-year shortfall almost 50 percent larger. We believe it is prudent to leave some wiggle-room to protect against this risk.

At the same time, it makes little sense to run sustained surpluses in Social Security, particularly since past experience suggests those surplus funds will be used to increase budget deficits outside of Social Security.[51] If *permanent* surpluses do materialize, future policymakers could reduce the payroll tax rate, find ways to set money aside for deficit reduction, or make other adjustments to assure Social Security's pay-as-you-go nature is preserved.

Regardless of the precise combination of tax and benefit changes, making Social Security sustainably solvent would reduce the national debt and greatly improve policy certainty. Doing so would lead to substantial improvement in welfare, investment, income, and economic output.

Consider Additional Pro-Growth Social Security Reforms

Our *Pro-Growth Social Security Reform* framework would improve economic output by enacting a discrete set of changes to the Social Security program designed to increase labor supply, capital stock, and overall welfare. However, policymakers can and should consider additional policy changes that would improve economic output and the Social Security program.

Some ideas include:

- **Reform Immigration Laws –** Thoughtful immigration reform can strengthen Social Security and grow the economy by increasing the total number of workers and/or promoting a more productive and entrepreneurial workforce. In 2013, the Senate passed a bipartisan comprehensive immigration bill that would (among other changes) increase the number of immigrants allowed in the country annually, in part through a new merit-based track. A related but bolder approach, proposed by Holtz-Eakin and Varas as part of this project, would fully repeal current limits on immigration in favor of a points-based system that prioritizes immigrants who would contribute the most to economic prosperity.[52] Both approaches would likely increase GDP as well as payroll tax revenue. CBO estimated the Senate bill would increase the size of the labor force and economy by about 5 percent after two decades and reduce Social Security's shortfall by almost $800 billion over that time period.[53] Immigration reform that increases workers can serve as an especially helpful complement to Social Security reform by helping to ease the transition to an older population while magnifying the economic and fiscal boosts from pro-work, pro-savings, cost-reducing, and revenue-increasing policies.

- **Repeal the Social Security Earnings Test –** Currently, those who collect Social Security prior to the NRA face an earnings test that temporarily reduces benefits based on earnings above $17,640 (indexed). This reduction is actually in effect a deferral of benefits that results in higher payments after the NRA; however, the earnings test is not well understood, and many workers view it as a tax. Research suggests that repealing the earnings test would both increase labor force participation among those above 62 and earnings among those already in the labor force.[54] Repeal would also modestly improve Social Security solvency. These effects would all result in a larger economy.

- **Modify Actuarial Reductions for Early Retirement –** One way to encourage greater labor force participation among older workers would be to increase the penalty for retiring prior to the NRA. Under current law, those who retire early face lower annual benefits and COLAs; the goal of this benefit reduction is to provide retirees with roughly the same *lifetime* benefits regardless of when they retire. One option would be to impose larger reductions to account for loss of payroll tax contributions as well as payment of benefits.[55] Another alternative would be to impose a steeper reduction in initial benefits for early retirees, but then continue to increase benefits through an unreduced COLA. For example, instead of reducing initial benefits from $20,000 to $14,000 and COLAs from $400 per year to $280 per year, this policy might reduce initial benefits to $12,000 but maintain COLAs of $400 per year. The lower initial benefit would likely discourage early retirement, but the higher COLA would strengthen retirement security at later ages.

- **Improve Auxiliary Benefits to Reward Work –** A second earner can currently collect half of their spouse's benefits, regardless of the second earner's earnings history. As a result, the reward for work is low and the implicit tax rate is high for lower-earning spouses or spouses with intermittent work history (for example, if they took time off to provide child care). The current

spousal benefit is also regressive, rewarding wealthy single-earner households relative to two-earner households. To better reward work for second earners, policymakers should consider reducing the spousal benefit to 33 percent of the primary benefit – at least for higher earners. Some of the savings from this policy could be used to enhance widow(er)s benefits or to offer 'drop-out years' for care of a young child, which could further improve work incentives. Other bolder ideas, such as earnings sharing or spousal mini-PIA, could also be considered.

- **Enact Disability Solutions to Promote Return to and Remain at Work –** In 2017, 24 million workers were out of the labor force due to a disability, including 9 million collecting Social Security Disability Insurance (SSDI). While SSDI provides an important safety net, many workers would much rather collect a paycheck than a disability check. Thoughtful improvements to the SSDI program and other policies for workers with disabilities can help many workers remain at work and – in some cases – return to work. The *McCrery-Pomeroy SSDI Solutions Initiative* (www.SSDISolutions.org) has developed a number of options worthy of consideration. To the extent these reforms help workers with disabilities to remain in the workforce, they can help increase the size of the macro-economy as well as increase income for those workers and their families.

- **Adopt a More Pro-Growth Payroll Tax –** In our solvency recommendations, we suggest better funding Social Security by raising the amount of income subject to the payroll tax and applying the payroll tax more broadly. Alternatively, policymakers could consider replacing or structurally adjusting the payroll tax in order to raise revenue with fewer economic distortions. Depending on the details, it may be possible to also reduce the tax rate in the process.

- **Reassess Retirement Ages Government-Wide –** Currently, workers receive mixed signals about when and how to retire. Federal policies in particular offer a hodgepodge of different retirement ages and provisions that sometimes encourage earlier retirement, sometimes promote delayed retirement, rarely facilitate flexible retirement arrangements, and almost always create confusion.[56] Social Security, Medicare, Supplemental Security Income, Supplemental Nutrition Assistance Program benefits, tax-preferred retirement accounts, the Earned Income Tax Credit, the standard deduction, federal pensions, and regulations for private pensions all set different standards for what is considered old age and when is the right time to retire. The federal government should review retirement ages throughout the budget, tax code, and regulatory code and streamline them to send clearer retirement signals. Once adjusted, most if not all ages would ideally be indexed to life expectancy in order to discourage a reduction in relative labor force participation as life expectancy improves.

Further policy development and analysis should be conducted on the ideas above, as many should be a part of – or a complement to – pro-growth Social Security reform.

Analysis of the Framework for Pro-Growth Social Security Reform

The framework for *Pro-Growth Social Security Reform* we outlined in this paper would encourage delayed retirement and productive aging, reward work at all ages, increase savings and investment, and improve certainty and sustainability surrounding the program.

While any plan to fix Social Security will involve trade-offs and will create winners and losers, our framework would represent significant net improvement from current law. Specifically, the *Pro-Growth Social Security Reform* framework would increase retirement income and improve overall retirement security in a progressive manner, restore sustainable solvency to the Social Security program, and significantly increase economic growth as well as personal incomes.

Further research and analysis is necessary to understand the precise magnitude of macroeconomic, distributional, and fiscal effects of our framework. Decisions must also be made with regards to various details – as our framework does not specify precisely how each component should be enacted.

Based on a survey of existing research, however, we believe our framework could increase the size of the economy by somewhere between **3.5 percent and 13 percent** by 2050. That is the equivalent of a 0.25 percentage point increase in the annual growth rate under a central estimate.

A plan based on our framework could also restore Social Security to sustainable solvency, ultimately generating surpluses. Lastly, our framework would improve overall retirement security, including by increasing retirement income for many low- and middle-income beneficiaries.

The Macroeconomic Effect of Pro-Growth Social Security Reform

The *Pro-Growth Social Security Reform* framework would significantly increase economic output over the long term – resulting in larger incomes, more wealth, and stronger public finances.

Though future research is needed to model the effects of the framework, existing economic literature suggests its components would each contribute to economic growth. In very broad terms, we estimate a plan designed within this framework could increase the size of the economy – measured by gross national product (GNP) – by somewhere between ***3.5 percent and 13 percent*** in 2050.

Fig. 9: Economic Effects of *Pro-Growth Social Security Reform Framework*

	Low Estimate	High Estimate
Raise Retirement Ages w/ Age-62 Poverty Protection Benefit (62-PPB)	**+1.0%**	**+3.0%**
Apply Benefit Formula Annually (Mini-PIA), Counting All Years of Work	**+0.5%**	**+1.5%**
Establish Supplemental Retirement Accounts (SRAs)	**+1.0%**	**+3.0%**
Restore Social Security Solvency	**+1.0%**	**+5.5%**
Total Increase in GNP by 2050 *(assuming no interactions)*	**+3.5%**	**+13%**
Memo: Increase to Annual Growth Rate Through 2050	+0.11%	+0.40%
Central Estimate for Increase in Growth Rate Through 2050	**+0.25%**	

By increasing the number of months and years most Americans work, we estimate raising the retirement ages as we recommend will boost the economy by 1 to 3 percent in 2050, while adopting the mini-PIA and offering benefits based on all years of earnings will result in another 0.5 to 1.5 percent increase in economic activity. (A further increase in either or both ages would result in an additional boost.)

Meanwhile, by raising the national savings rate and increasing private investment, we estimate Supplemental Retirement Accounts (SRAs) could increase output by 1 to 3 percent. Finally, restoring solvency to Social Security could generate another 1 to 5.5 percent improvement (depending on the mix of tax and benefit changes enacted) by reducing future budget deficits and influencing work, savings, and retirement behavior.

Because our plan would continue to raise the retirement ages and slow the growth of public debt over time, we would expect an even larger effect on the economy in the very long run.

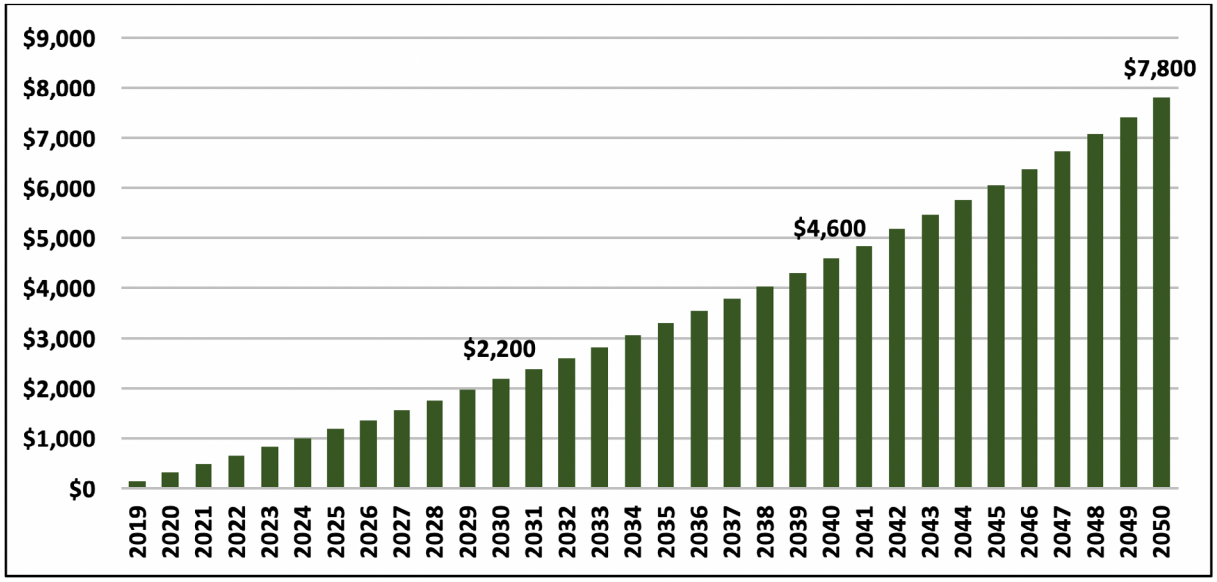
The **Appendix** explains our estimates in more detail – *though they should be regarded as extremely rough and were generated by looking at the potential effects of component parts of our plan, rather than viewing the economy holistically or considering potential interactions.*

Through 2050, a 3.5 to 13 percent increase in the size of the economy is equivalent to a 0.1 to 0.4 percentage point boost in the average annual growth rate. This suggests a ***0.25 percentage point*** increase in annual economic growth under a central estimate – enough to increase annual real GNP growth from about 1.9 percent per year to nearly 2.2 percent.

To be sure, this increase in the size of the economy does not necessarily equate to an equal improvement in welfare. For example, delaying retirement could increase welfare less than GNP since the associated reduction in available leisure time is not accounted for in economic statistics. On the other hand, GNP does not account for substantial welfare improvements from the certainty associated with Social Security solvency, nor does it capture the well-documented non-financial benefits associated with remaining in the workforce (such as improved mental health, higher quality of life, and lower mortality) and building precautionary wealth.

Overall, the *Pro-Growth Social Security Reform* would improve overall welfare and financial wellbeing. Under current law, CBO projects that average income per person will total more than $94,000 in 2050.[57] Assuming a quarter point more of annual growth, average income per-person would rise to over $102,000. In other words, our plan could increase average income by almost $8,000 in 2050 alone (in today's dollars).

Fig. 10: Additional Income per Person Given a 0.25% Faster Growth Rate (2019 Dollars)

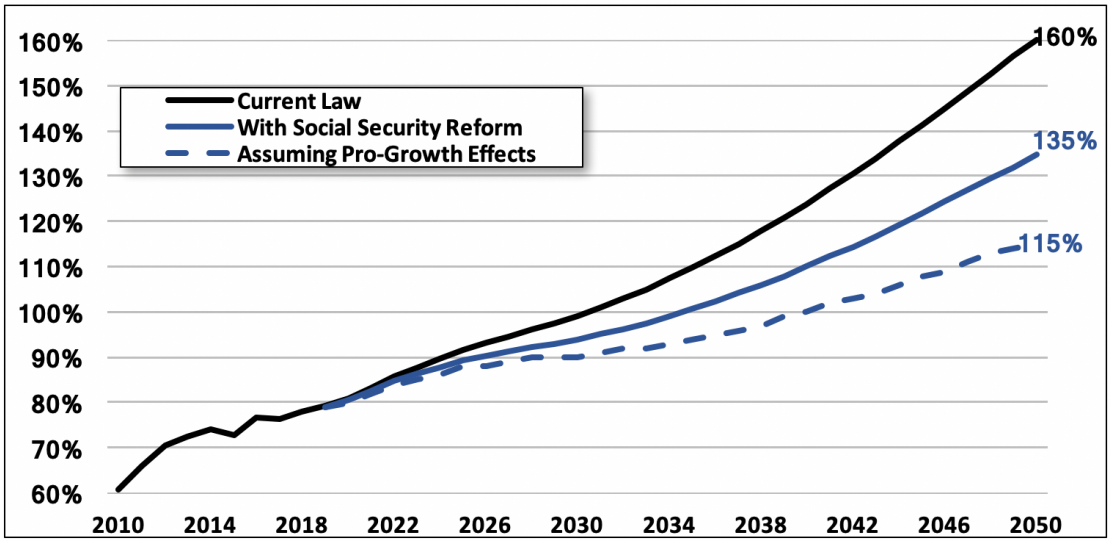


Source: Authors' calculation based on CBO data.

Faster growth can also help address the federal government's severe fiscal challenges. Americans who work longer will contribute more in federal taxes, and our proposal will help ensure wealthy Americans continue to pay taxes as they grow older. Higher wages and incomes will further increase tax revenue, and larger GDP increases the federal government's capacity to hold debt.

We estimate that federal debt held by the public will rise to about 160 percent of GDP by 2050 under current law, or 135 percent of GDP with our illustrative Social Security plan. Assuming a 0.25 percentage point improvement in economic growth (assuming GDP grows at the same rate as GNP under our central estimate), debt would fall to below 115 percent of GDP.[58] In other words, the faster growth from our plan would reduce debt-to-GDP by 20 percentage points in 2050 under our central estimate.

Fig. 11: Projected Debt Held by the Public (Percent of GDP)



Source: Authors' calculation based on CBO and SSA data.

Additions or supplements to our plan could make it even more pro-growth, resulting in a further increase in income and reduction in debt. For example, adopting our plan along with the 2013 immigration bill passed by the Senate would increase the size of the economy by roughly 10 to 20 percent by 2050, increasing the average growth rate by 0.3 to 0.6 percentage points per year.

The Effect of Pro-Growth Social Security Reform on Solvency

While the *Pro-Growth Social Security* framework does not dictate the precise details of a Social Security plan, our illustrative plan based on it would restore solvency to Social Security for the next 75 years and beyond. Accounting for dynamic feedback effects, our illustrative plan could lead to substantial surpluses.

In addition to raising the retirement ages and calculating benefits annually (mini-PIA), our illustrative plan mostly borrows from other proposals in order to close Social Security's funding gap with a relatively balanced mix of revenue and benefit changes.

Specifically, our illustrative plan assumes the increase to the taxable maximum proposed by the bipartisan Conrad-Lockhart Commission on Retirement Security and the progressive benefit formula modifications proposed in Chairman Sam Johnson's Social Security Reform Act. It also assumes policymakers broaden the payroll tax base to cover state and local government workers, as well as cafeteria plan contributions, student income, and authorized immigrant income. And it assumes policymakers index COLAs using the more accurate chained CPI.[59]

Relative to the shortfall projected in "The 2019 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds," we estimate this illustrative plan would close 115 percent of the program's 75-year finding gap and 110 percent of its shortfall in 2093 – enough to meet the test of sustainable solvency. Roughly one-sixth of these savings come from the core elements of our plan (the retirement age and mini-PIA), which include both savings and cost components. Raising the EEA an additional year to maintain the four-year difference between the EEA and NRA would result in further solvency gains.

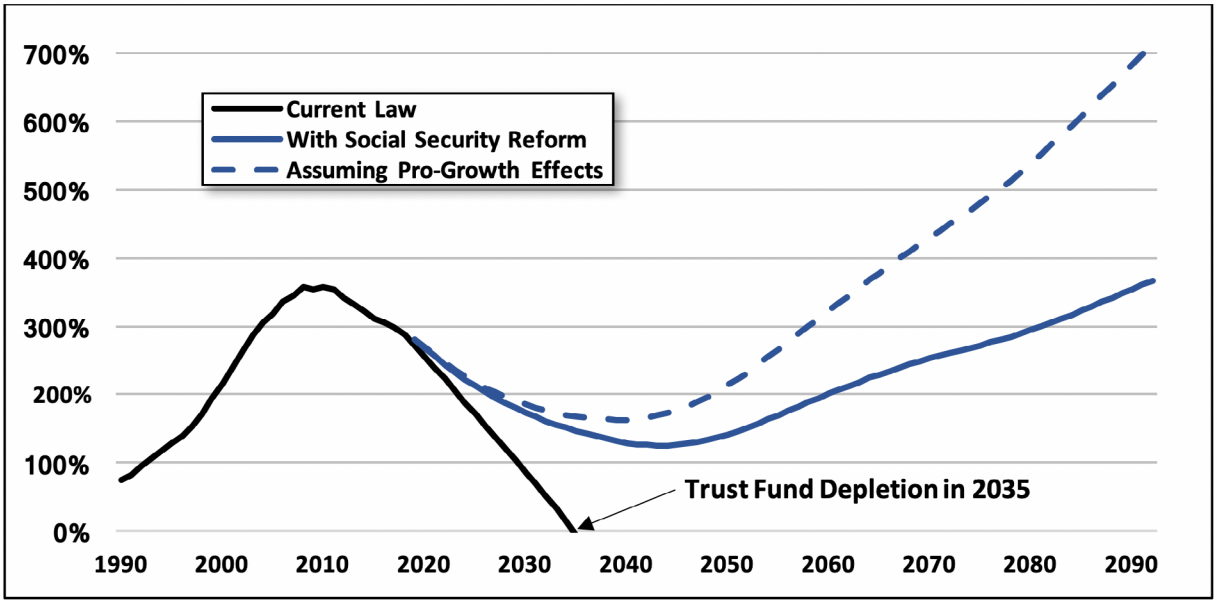
Fig. 12: Solvency Impact of Illustrative Social Security Reform Plan

	75-Year Solvency Gap Closed	Shortfall Closed in 75th Year
Enact Retirement Age, 62-PPB, Mini-PIA, and Computation Years Policies from *Pro-Growth Social Security Reform* Framework	15%	25%
Increase the Taxable Maximum as in Conrad-Lockhart Commission	30%	25%
Adopt Progressive Benefit Formula from Social Security Reform Act	30%	35%
Broaden the Payroll Tax Base to Include Cafeteria Plan Income, New State & Local Government Workers, and Other Exempt Income	20%	5%
Adopt Chained CPI to Calculate COLAs	20%	20%
Total Improvement in Social Security Finances	**115%**	**110%**
Memo: Improvement Assuming 0.25% Increase in Wage Growth	***130%***	***135%***

Note: estimates are rough and rounded.

Incorporating the macroeconomic effects of our framework could result in a larger improvement. For example, assuming a 0.25 percent per year increase in average wage growth – an assumption broadly consistent with a 3.5 to 13 percent boost in GNP by 2050 – would show our illustrative plan closing 130 percent of the solvency gap.

Fig. 13: Social Security Trust Fund Ratio, Historical and Projected (Percent of Scheduled Benefits)



Source: SSA data and Authors' calculations.

From a trust fund perspective, our illustrative plan would allow sufficient resources to pay benefits in perpetuity. Whereas the Social Security trust fund will be fully depleted by 2035 under current law, the trust fund would always hold more than a year's worth of benefits in reserves under our illustrative plan. In fact, it would hold nearly four years' worth of reserves by 2093. Incorporating a hypothetical 0.25 percentage point improvement in wage growth, the trust fund would be large enough to pay seven years of annual benefits by 2093.

While it is prudent to over-solve Social Security's shortfall upfront, given that CBO and others estimate a much larger gap, running permanent surpluses would be unwise. If permanent surpluses did arise, our plan would allow future policymakers to ultimately cut the payroll tax rate by 0.5 to 1 percentage points, increase benefits by 4 to 8 percent, or dedicate 0.2 to 0.3 percent of GDP per year to deficit reduction.

Incorporating additional pro-growth reforms would further improve Social Security's finances. For example, the SSA's Chief Actuary estimated that the Senate-passed immigration bill alone would close 5 to 10 percent of Social Security's long-term funding gap.[60] We expect a positive interaction effect between immigration reform and our plan that would expand that number.

The Effect of Pro-Growth Social Security Reform on Retirement Security

Our *Pro-Growth Social Security Reform* framework would improve welfare and retirement security for most workers while making Social Security far more progressive. Though a distributional analysis is needed to understand the magnitude of these effects, the direction is clear.

Most importantly, the framework would improve retirement security by eliminating the threat of trust fund depletion, thus preventing a 21 percent across-the-board cut in benefits. The framework would offer substantially more in benefits than what would be available under this across-the-board cut scenario. The certainty associated with solvency would also significantly improve retirement security by allowing workers to plan and adjust to any changes.[61]

The framework would also improve retirement security by encouraging more years of work and promoting delayed retirement. In particular, working longer can help workers maintain the same level of Social Security benefits with a rising NRA, increase wealth entering into retirement, and reduce the number of years that retirement savings need to cover. According to Butrica, Smith, and Steuerle (2006), an additional year of work raises average annual retirement income by nearly 10 percent (16 percent among low-income workers) and average wealth by about 5 percent.[62]

In addition, the framework would improve retirement security by automatically enrolling workers in Supplemental Retirement Accounts (SRAs). These accounts could help workers accumulate significant wealth over time, particularly for workers who currently have little access to retirement savings vehicles. SSA's Office of Retirement Policy has estimated that 2 percent add-on accounts would increase average benefits by 7 percent in 2050 and 13 percent in 2070 among those who enroll in them.[63] A 3 percent account would have an even larger effect.

The elements of our framework are also extremely progressive – reductions in scheduled benefits and increases in revenue would mainly affect wealthier workers and seniors, while low-income beneficiaries would receive enhanced benefits. Our proposed Age 62 Poverty Protection Benefit (62-PPB) would

significantly increase benefits for low-income, full-career workers while insulating a broader swath of workers from some of the adverse effects of raising the retirement ages. Meanwhile, increases in the taxable maximum and progressive changes to the benefit formula in our illustrative plan would close more than half of Social Security's solvency gap, mainly from high-income workers and seniors.

Finally, economic growth itself will improve retirement security by increasing wages and asset values. Assuming it accrued to each American evenly, an $8,000 increase in per-person income by 2050 would equate to about a $220,000 increase in lifetime income for a couple retiring in that year – though some of that may be incorporated in the wealth and income estimates above.

Fig. 14: Magnitude and Direction of Effects of Framework Elements On Retirement Income

Policy Change	Low Income	Middle Income	High Income
Avoid 21% Benefit Cut from Insolvency	↑	↑	↑
Increase Retirement Ages and Offer 62-PPB	↑	↓	↓
Count All Years of Earnings and Calculate Benefits Annually	↓	*	*
Adopt More Progressive Benefit Formula	↑	↓	↓
Adopt Chained CPI to Calculate COLAs	↓	↓	↓
Broaden the Payroll Tax Base and Increase the Taxable Maximum	*	↑	↑
Offer Supplemental Retirement Accounts (SRAs)	↑	↑	↑
Returns to Delayed Retirement	↑	↑	↑

Note: arrows are in the direction of estimated change in progressivity; size is a rough estimation of magnitude.
* denotes estimate of marginal change or unclear change.

More research and modeling is needed to quantify the effects of our framework on retirement income and the distribution of benefits. However, it is clear that the *Pro-Growth Social Security Reform* we propose would represent an overall improvement in retirement security, particularly for low-income workers.

Conclusion

As the population ages, policymakers must act affirmatively to combat the coming economic slowdown. The need for Social Security reform to prevent program insolvency also provides an opportunity to enact a strong pro-growth agenda that improves certainty and promotes work, savings, and investment.

Our *Pro-Growth Social Security Reform* calls for raising the retirement ages while helping low-income and vulnerable workers, applying Social Security's benefit formula annually to all years worked, automating workers into new add-on Supplemental Retirement Accounts (SRAs), and making Social Security sustainably solvent through a mix of progressive tax and benefit changes.

These policies would help grow the economy by promoting delayed retirement and productive aging, rewarding work at all ages, increasing savings and investment, and improving certainty and sustainability.

We estimate this framework would increase the size of the economy by 3.5 to 13 percent in 2050, the equivalent of improving the economic growth rate by 0.25 percentage points per year under a central estimate. Incorporating additional pro-growth reforms – for example, improvements to immigration law – could significantly enhance these benefits.

A plan based on our framework would also maintain Social Security trust fund solvency for 75 years and beyond and improve retirement security for most Americans.

Further work and research should focus on developing a detailed plan based on our framework and carefully modeling the economic, fiscal, and distributional effects of the plan.

The authors would like to thank Jeff Fox, Bob Bixby, Josh Gordon, Bill Gale, Gopi Goda, Chuck Blahous, Andrew Biggs, Doug Holtz-Eakin, and Donald Marron for their helpful comments and feedback.

The authors would also like to thank Lydia Pritchard, Adam Rosenberg, Annie Shuppy, and the rest of the team at the Committee for a Responsible Federal Budget for their assistance in producing this report.

Appendix: Estimating the Macroeconomic Effects of the Pro-Growth Social Security Framework

The ***Pro-Growth Social Security Reform*** framework would unquestionably boost the size of the economy, likely by a significant magnitude. However, more analysis must be undertaken to model the details of the plan in order to generate a credible point estimate for its possible effects.

In this paper, we utilized outside analysis and research of similar policies in order to develop an extremely rough estimate of the range of possible growth effects. Adding effects from the component parts together (and ignoring interactions), we estimate the framework will increase GNP by 3.5 to 13 percent by 2050. This is the equivalent of a 0.25 percent boost in annual GNP growth, taking a central estimate – though we do not expect this growth to be linear.

Fig. 15: Economic Effects of *Framework for Pro-Growth Social Security Reform*

	Low Estimate	High Estimate
Raise Retirement Ages w/ Age-62 Poverty Protection Benefit (62-PPB)	**+1.0%**	**+3.0%**
Apply Benefit Formula Annually (Mini-PIA), Counting All Years of Work	**+0.5%**	**+1.5%**
Establish Supplemental Retirement Accounts (SRAs)	**+1.0%**	**+3.0%**
Restore Social Security Solvency	**+1.0%**	**+5.5%**
Total Increase in GNP by 2050 *(assuming no interactions)*	**+3.5%**	**+13%**
Memo: Increase to Annual Growth Rate Through 2050	+0.11%	+0.40%
Central Estimate for Increase in Growth Rate Through 2050	**+0.25%**	

Below we explain how we determined the potential impact of each element of our plan:

- **Raising the Retirement Ages with a 62-PPB –** By promoting delayed retirement, increases to the EEA and NRA will increase labor force participation for those above age 62, thus increasing the size of the economy. In 2012, CBO estimated that raising the EEA and NRA to 64 and 70, respectively, would increase average time worked by almost 16 months and ultimately increase GDP by nearly 3 percent.[64] These estimates imply that each one year increase in the NRA results in almost three months more work and a 0.5 percent boost in long-run GDP, while each one year increase in the EEA results in four months of additional work and a 0.75 percent boost in long-run GDP. Other studies have suggested an even larger effect from raising the ages – as much as twice as large in some cases.[65] Eliminating the maximum delayed retirement age to allow people to collect benefits beyond age 70 would further boost the size of the labor force. On the other hand, the 62-PPB would mitigate the effects of increasing the retirement ages, resulting in less overall growth. Under our proposal, the retirement ages would reach 64 and 69 during the 2050s, though it would be a few more years before the full effect of a two-year age increase is felt in the economy. Overall, we estimate this proposal would increase the size of the economy by 1 to 3 percent in 2050 and would continue to increase the size of the economy further beyond 2050.

- **Applying the Benefit Formula Annually (Mini-PIA), Counting All Years Worked –** Counting all years of work toward Social Security benefits would significantly improve the incentive to work for those with greater than 35 years or fewer than ten years of covered earnings. Calculating benefits on an annual basis (mini-PIA) rather than as a 35-year average, meanwhile, would generally improve the incentive for individuals to work *more years* (the extensive margin).

However, it would reduce the incentive for some individuals to work more hours in a given year (the intensive margin). This policy's incentives at the extensive margin are particularly strong for those later in their careers, who are most likely to be influenced by explicit and implicit tax rates.[66] Analysis of a similar policy by Goda, Shoven, and Slavov (2009) found that it would reduce average Implicit Social Security Tax Rates by roughly 3 percent (which is about 4 percent of after-tax income) for the 11th through 40th year of work. The average reduction is 6 percent (which is about 8 percent of after-tax income) for the 31st through 40th year of work, when workers have much more discretion over whether or not to work. Assuming average substitution elasticities of roughly 0.25, a 4 percent across-the-board tax cut would suggest an ultimate increase in labor income of about 1 percent. The effect could be even larger, since older workers will receive a larger average tax cut and are believed to have much higher work elasticities (Schmitt and Sevak find a 10 percent rate reduction could increase labor supply by 5 to 8 percent among 65-year-olds).[67] Given that the effect of our proposal on tax rates would vary substantially by worker and time horizon – and elasticities of those workers and horizons would as well – it is difficult to estimate the full effect of our proposal without further modeling. However, we believe it is reasonable to conclude that this policy ultimately would increase the size of the economy by between 0.5 and 1.5 percent.

- **Establish Supplemental Retirement Accounts (SRAs).** SRAs are likely to increase the overall size of the economy by increasing national savings and investment, resulting in a larger capital stock. The extent to which SRAs increase national savings will depend on the size of the contributions (2 percent or 3 percent of wages), the share of workers who opt out of the accounts in a given year, and the extent to which account holders reduce savings or increase borrowing elsewhere in response to holding the accounts. For example, if the SRAs deducted 2 percent of wages, half of workers enrolled, and enrollees offset about half the savings elsewhere, the net effect would be to boost the national savings rate by 0.2 percent of GDP. On the other hand, if the accounts were 3 percent of wages, 90 percent of workers enrolled, and workers offset only a quarter of their savings, then the national savings rate would increase by about 0.8 percent of GDP. Using a standard Solow Growth Model, higher savings should flow through into greater investment and a larger GNP. By 2050, we estimate a 1 to 3 percent increase in the size of the economy.

- **Restore Solvency to Social Security.** Making Social Security solvent is likely to increase the size of the economy by reducing unified budget deficits, changing various incentives to work and save, and improving certainty. Restoring Social Security solvency over the next 75 years would require the equivalent of increasing taxes or reducing benefits by 1 percent or 1.5 percent of GDP per year, according to the program's Trustees and CBO, respectively.[68] Because budget conventions assume Social Security continues to pay benefits beyond insolvency, the result would be a significant reduction in future deficits and debt. This in turn would reduce crowd-out of private investment and thus increase the size of the economy. To assess the magnitude of this increase, we reviewed a recent CBO study that found that primary deficit reduction of 1.3 percent of GDP per year would increase GNP by 3.3 percent by 2048.[69] Depending on the precise details and path of solvency improvement under our framework, we believe the effects of restoring solvency by itself will increase GNP by 2 to 4 percent by 2050. Economic improvement would continue beyond 2050, as solvency leads to increasing reductions in unified budget deficits.

  In addition to the direct effects from solvency, the specific policies to achieve solvency will influence the size of the economy – though it is not clear in what direction. For example, policies

to reduce benefits would tend to reduce the incentive to work by increasing the Implicit Social Security Tax Rate but would tend to increase the incentive to save and work by reducing the amount of transfer income workers can expect to receive in retirement. Both sets of effects should be stronger for progressive benefit reductions than across-the-board reductions. Higher tax rates, meanwhile, are likely to reduce the incentive to work and invest, but they may have an offsetting 'income effect' that results in more work or savings among some workers. In terms of the literature, a 2010 IMF working paper found that a generic set of benefit reductions would increase GDP by 0.5 percent, while a generic set of revenue increases would reduce GDP by 0.4 percent.[70] Meanwhile, a study through the Center for Retirement Research found that benefit reductions tend to lead to delayed retirement (implying a stronger economy) while revenue increases have little effect.[71] As another data point, a CBO assessment of the revenue-heavy Diamond-Orszag Social Security plan in 2004 found that it would reduce the projected size of real GNP by 0.7 to 0.8 percent after two decades and 1.5 to 1.7 percent after 75 years.[72] And CBO estimated the benefit-reduction-heavy Kolbe-Stenholm plan would increase the projected size of the economy by 1 percent after two decades and 3 to 5 percent after 75 years.[73] The policies we suggest to improve solvency (other than those estimated separately) would have offsetting effects on the economy and might not result in any significant change in output. For purposes of this paper, we estimate that they would increase the size of the economy by as much as 1.5 percent by 2050 and reduce the size of the economy by as much as 1 percent.

Finally, solvency is likely to improve certainty for workers, which will in turn improve welfare, portfolio/investment choice, and possibly the savings rate. We expect the macroeconomic effect of this improvement to be positive but modest. Adding these three effects together, we find solvency improvements could increase GNP by anywhere from 1 to 5.5 percent by 2050. Economic growth would continue to increase beyond 2050.

Our overall estimates – that GNP will grow increase by between 3.5 and 13 percent in 2050 – are calculated by adding up the sum of the parts above. While these estimates are extremely rough, they are consistent with those made elsewhere. Recently, CBO estimated that simply restoring Social Security to solvency by cutting benefits across-the-board to match revenue in 2032 would increase GDP by 1.7 percent and GNP by 3.2 percent in 2049.[74] Similarly, the Penn Wharton Budget Model recently estimated the impact of a variety of solvency plans (none of which we expect to be as pro-growth as ours) and found they would increase GDP by between 1.8 and 7.1 percent by 2048.[75] Those figures would be significantly larger using GNP in 2050.

Future research should engage in sophisticated modeling to better estimate the effects of the elements of our framework, both individually and collectively.

Endnotes

[1] Committee for a Responsible Federal Budget, "CBO Economic Forecasts Are Similar to the Consensus, Unlike OMB," June 2018, http://www.crfb.org/blogs/cbo-economic-forecasts-are-similar-consensus-unlike-omb.

[2] Ibid.

[3] See Congressional Budget Office, "The 2018 Long-Term Budget Outlook," *Congressional Budget Office* June 2018, https://www.cbo.gov/publication/53919. Nearly all calculations in this analysis related to GNP, GDP, and debt are based on this report.

[4] Ibid.

[5] Researchers from RAND Corporation found that population aging leads to productivity declines in each age group, which might create a spillover loss to younger workers as older, more-productive workers retire. They estimated this effect has reduced productivity growth by 15 percent (0.2 percentage points). See Maestas, Mullen, and Powell, "The Effect of Population Aging on Economic Growth, the Labor Force, and Productivity," July 2016.

[6] Social Security Trustees, "Table IV.B3.- Covered Workers and Beneficiaries, Calendar Years 1945-2095," *Social Security Administration* April 2019, https://www.ssa.gov/OACT/TR/2019/lr4b3.html.

[7] Social Security Trustees, "Table VI.G4.- OASDI and HI Annual Income, Cost, and Balance as a Percentage of GDP, Calendar Years 1970-2095," *Social Security Administration* April 2019, https://www.ssa.gov/OACT/TR/2019/lr6g4.html.

[8] Social Security Trustees, "The 2019 Annual report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds," *Social Security Administration* April 2019, https://www.ssa.gov/OACT/TR/2019/tr2019.pdf.

[9] Congressional Budget Office, "The Federal Budget in 2017: An Infographic," *Congressional Budget Office* March 2018. https://www.cbo.gov/publication/53624; Adam Bee and Joshua Mitchell, "Do Older Americans Have More Income Than We Think?", *U.S. Census Bureau* July 2017, https://www.census.gov/content/dam/Census/library/working-papers/2017/demo/SEHSD-WP2017-39.pdf.

[10] Congressional Budget Office, "The Distribution of Household Income, 2015," CBO, November 2018, https://www.cbo.gov/publication/54646.

[11] Government Accountability Office, "Retirement Decisions: Federal Policies Send Mixed Signals about When to Retire," *Government Accountability Office* July 2007, http://www.gao.gov/assets/270/263644.pdf.

[12] Martin Feldstein, "The Effect of Social Security on Saving," NBER, April 1979, https://www.nber.org/papers/w0334.pdf; see also Eric M. Engen and William G. Gale, "The Effects of Social Security Reform on Private and National Saving," Brookings Institution, June 1997, https://www.brookings.edu/articles/the-effects-of-social-security-reform-on-private-and-national-saving/; Jeffrey B. Liebman and Douglas W. Elmendorf, "Social Security Reform and National Saving in an Era of Budget Surpluses," Brookings Institution, 2000, https://www.brookings.edu/wp-content/uploads/2000/06/2000b_bpea_elmendorf.pdf; Andrew Eschtruth and Robert Triest, "National Saving and Social Security Reform," Center for Retirement Research, April 2005, http://crr.bc.edu/wp-content/uploads/2007/01/jtf_18.pdf; Edward M. Gramlich, *Is It Time to Reform Social Security?* University of Michigan Press, 2000; Andrew A. Samwick, "The Impact of Social Security Reform on Saving," *Proceedings, Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, vol. 90 (1997): 178-186, https://www.jstor.org/stable/pdf/41954531.pdf; Martin Feldstein and Andrew Samwick, "Maintaining Social Security Benefits and Tax Rates through Personal Retirement Accounts: An Update Based on the 1998 Social Security Trustees Report," NBER, March 1999, https://www.nber.org/papers/w6540.pdf; Peter Diamond, "Social Security, the Government Budget and National Savings," Massachusetts Institute of Technology, March 2005, https://economics.mit.edu/files/605; Carolyn L.Weaver [ed.], *Social Security's Looming Surpluses: Prospects and Implications*, AEI Press, 1990; Henry J. Aaron and John B. Shoven, *Should the United*

States Privatize Social Security?, The MIT Press, July 1999; Steven A. Sass and Robert K. Triest [eds.], "Social Security Reform: Links to Saving, Investment, and Growth," *Economic Conference Series 41* June 1997; Sylvester J. Schieber and John B. Shoven, *The Real Deal: The History and Future of Social Security*, (Yale University Press) 1999.

[13] Charles Blahous, "Social Security and Work," 2009. *National Affairs* Winter 2010. https://www.hudson.org/content/researchattachments/attachment/761/nacharlesblahoussocialsecurity&work.pdf.

[14] Authors' calculation based on Congressional Budget Office's "The 2018 Long-Term Budget Outlook," June 2018, https://www.cbo.gov/publication/53919.

[15] S*ocial Security's Finances: Hearing before the House Committee on Ways and Means Subcommittee on Social Security*, Restoring Solvency and Improving Equity in Social Security Benefit Options, 112th Cong. 1st Sess., (July 2011) (written statement of C. Eugene Steuerle, Urban Institute), http://gop-waysandmeans.house.gov/UploadedFiles/SteuerleTestimony7811.pdf.

[16] Damir Cosic and C. Eugene Steuerle, "Case Study: Employment at Older Ages," *Urban Institute*, https://www.urban.org/policy-centers/cross-center-initiatives/program-retirement-policy/projects/modernizing-our-retirement-programs/alternative-measures-age/case-study-employment-older-ages (Accessed October 2018).

[17] For additional information, see: Gila Bronshtein, Jason Scott, John B. Shoven, and Sita N. Slavov, "The Power of Working Longer," National Bureau of Economic Research, January 2018, https://www.nber.org/papers/w24226; and Diana Farrell, Eric Beinhocker, Ezra Greenberg, Suruchi Shukla, Jonathan Ablett, and Geoffrey Greene, "Talkin' 'Bout My Generation: The Economic Impact of Aging US Baby Boomers" McKinsey Global Institute June 2008, https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Economic%20Studies%20TEMP/Our%20Insights/Talkin%20bout%20my%20generation/MGI_Impact_of_Aging_Baby_Boomers_executive_summary.ashx.

[18] See Barbara A. Butrica, Karen E. Smith and C. Eugene Steuerle, "Working for a Good Retirement," *Urban Institute Retirement Project Discussion Paper* No. 06-03, (May 2006), http://www.urban.org/research/publication/working-good-retirement; and authors' calculations based on Joyce Manchester and Noah Meyerson, "Raising the Ages of Eligibility for Medicare and Social Security," *Congressional Budget Office Issue Brief*, (January 2012), https://www.cbo.gov/sites/default/files/112th-congress-2011-2012/reports/01-10-2012-Medicare_SS_EligibilityAgesBrief.pdf; and "Provisions Affecting the Retirement Age C1.1", Long Range Solvency Provisions, Social Security Administration Office of the Chief Actuary, (accessed October 2018) https://www.ssa.gov/oact/solvency/provisions/charts/chart_run155.html.

[19] See Dhaval Dave, R. Inas Rashad, and Jasmina Spasojevic, "The Effects of Retirement on Physical and Mental Health Outcomes," *Southern Economic Journal*, Southern Economic Association, vol. 75(2), January 2008, pages 497-523; Alice Zulkarnain and Matthew S. Rutledge, "How Does Delayed Retirement Affect Mortality and Health?" *Center for Retirement Research at Boston College Working Paper* #2018-11 (October 2018), http://crr.bc.edu/wp-content/uploads/2018/09/wp_2018-11.pdf; and Elenora Patacchini and Gary V. Engelhardt, "Work, Retirement, and Social Networks at Older Ages," *Center for Retirement Research at Boston College Working Paper #2016-15* (November 2016), http://crr.bc.edu/wp-content/uploads/2016/11/wp_2016-15.pdf.

[20] Social Security Administration, "Annual Statistical Supplement, 2017" *Social Security Administration* March 2018, https://www.ssa.gov/policy/docs/statcomps/supplement/index.html; Government Accountability Office, "Retirement Decisions: Federal Policies Offer Mixed Signals about When to Retire," *United States Government Accountability Office, Report to Congressional Committees* July 2007, https://www.gao.gov/new.items/d07753.pdf.

[21] Joyce Manchester and Noah Meyerson, "Raising the Ages of Eligibility for Medicare and Social Security," *Congressional Budget Office Issue Brief*, (January 2012), https://www.cbo.gov/sites/default/files/112th-congress-2011-2012/reports/01-10-2012-Medicare_SS_EligibilityAgesBrief.pdf; Barry Bosworth, Gary Burtless, and Kan Zhang, "Later Retirement, Inequality in Old Age, and the Growing Gap in Longevity Between Rich and Poor," *Brookings Institution* (January 2016), https://www.brookings.edu/wp-content/uploads/2016/02/bosworthburtlesszhang_retirementinequalitylongevityfullpaper.pdf; Peter Orszag, "Why Americans Are Retiring Later," *Bloomberg Opinion* (October 2018), https://www.bloomberg.com/opinion/articles/2018-10-02/americans-are-retiring-later-to-boost-social-security-benefits; Alicia H. Munnell, "The Average Retirement Age – An Update," *Center for Retirement Research at Boston College* (March 2015), http://crr.bc.edu/wp-content/uploads/2015/03/IB_15-4_508_rev.pdf; Giovanni

Mastrobuoni, "Labor Supply Effects of the Recent Social Security Benefit Cuts: Empirical Estimates Using Cohort Discontinuities," *Princeton University* December 2006, https://www.princeton.edu/ceps/workingpapers/136mastrobuoni.pdf.

[22] Social Security Trustees, "The 2019 Annual report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds," *Social Security Administration* April 2019, https://www.ssa.gov/OACT/TR/2019/tr2019.pdf.

[23] See Congressional Budget Office, "Growing Disparities in Life Expectancy," *Congressional Budget Office* April 2008, https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/reports/04-17-lifeexpectancy_brief.pdf; National Academies of Sciences, Engineering, and Medicine, "The Growing Gap in Life Expectancy by Income: Implications for Federal Programs and Policy Responses," *The National Academies Press*, 2015 https://doi.org/10.17226/19015.

[24] Congressional Budget Office, "Social Security Policy Options, 2015," *Congressional Budget Office* (December 2015), https://www.cbo.gov/publication/51011; Glenn R. Springstead "Distributional Effects of Accelerating and Extending the Increase in the Full Retirement Age," *Social Security Office of Retirement and Disability Policy Brief No. 2011-01*, (January 2011), https://www.ssa.gov/policy/docs/policybriefs/pb2011-01.html; Committee for a Responsible Federal Budget, "Actually, Raising the Retirement Age Is Not Regressive" October 2012, http://www.crfb.org/blogs/actually-raising-retirement-age-not-regressive; Urban Institute, "Distributional Effects of Alternative Social Security Reforms: Details Matter," *Retirement Policy Center*, May 2010, https://www.urban.org/research/publication/distributional-effects-alternative-social-security-reforms-details-matter; Andrew G. Biggs, "The Case for Raising Social Security's Early Retirement Age," *American Enterprise Institute*, October 2010, http://www.aei.org/publication/the-case-for-raising-social-securitys-early-retirement-age/.

[25] This includes the EEA and the NRA, but also the aged-widow age of 60 and all ages in SSDI's occupational grids. The 62-PPB would remain locked at age 62, regardless of changes in life expectancy.

[26] The design details of the 62-PPB's minimum benefit itself are extremely important to ensure adequate coverage at reasonable cost. Precise details need to be modeled and agreed upon in the context of a broader reform plan. As a starting point, we propose offering a benefit equal to the federal poverty level for the aged for those who retire at 62, with higher benefits for delayed retirement using current actuarial adjustments. We suggest phasing in the benefit for new retirees between 2019 and 2028 and indexing the 62-PPB to average wage growth after 2030. We suggest offering the full 62-PPB to those with 30 years of work history, but phasing the benefit to ensure short-career workers receive adequate protection. For example, the minimum benefit could be set to 0 percent of poverty up through ten years of work and grow by 8 percent of poverty per year starting in the 11th year until it reaches 80 percent of poverty for 20 years of work. Thereafter, the benefit could be further increased by 2 percent per year so that a 30-year worker receives 100 percent of poverty, a 40-year worker receives 120 percent of poverty, and so on.

[27] When a retiree collecting the 62-PPB reaches the EEA under our proposal, SSA will assess whether their traditional benefit is higher or lower than the 62-PPB benefit. If the traditional benefit is higher, SSA will reduce it based on the beneficiary's 62-PPB collections in a manner similar to reductions from the current "Retirement Earnings Test." If the 62-PPB is higher, the retiree will continue to collect that benefit.

[28] Gopi Shah Goda, John B. Shoven, and Sita Nataraj Slavov, "Removing Disincentives in Social Security for Long Careers," *Social Security Policy in a Changing Environment*, pages 21-38 (June 2009), https://www.nber.org/chapters/c4531.pdf.

[29] See for example Martin Feldstein and Andrew Samwick, "Social Security Rules and Marginal Tax Rates," (March 1992) *National Tax Journal*, Vol. 45, (March 1992) No.1, pages 1-22, https://www.nber.org/papers/w3962.pdf; Gayle L. Reznik, David A. Weaver, and Andrew G. Biggs, "Social Security and Marginal Returns to Work Near Retirement," *Social Security Administration: Office of Retirement and Disability Policy* April 2009, https://www.ssa.gov/policy/docs/issuepapers/ip2009-02.html; John Sabelhaus, "What Is the Effective Social Security Tax on Additional Years of Work?" *National Tax Journal* September 2007, https://www.ntanet.org/NTJ/60/3/ntj-v60n03p491-506-what-effective-social-security.pdf; Lucie Schmidt and Purvi Sevak, "Taxes, Wages, and the Labor Supply of Older Americans," *University of Michigan Retirement Research Center* November 2006, https://mrdrc.isr.umich.edu/publications/papers/pdf/wp139.

pdf; and Barbara A. Butrica, Richard W. Johnson, Karen E. Smith, and C. Eugene Steuerle, "The Implicit Tax on Work at Older Ages," in *National Tax Journal*, Vol. 59, June 2006, pages 211-234, https://www.urban.org/sites/default/files/publication/50396/1001021-the-implicit-tax-on-work-at-older-ages.pdf.

[30] See Alan J. Auerbach, Laurence J. Kotlikoff, Darryl R. Koehler, and Manni Yu, "Is Uncle Sam Inducing the Elderly to Retire?" *NBER Working Paper* No. 22770 (October 2016), https://www.nber.org/papers/w22770.pdf; Lucie Schmidt and Purvi Sevak, "Taxes, Wages, and the Labor Supply of Older Americans," *University of Michigan Retirement Research Center* November 2006, https://mrdrc.isr.umich.edu/publications/papers/pdf/wp139.pdf; and Robin L. Lumsdaine, James H. Stock, and David A. Wise, "Retirement Incentives: The interaction between employer-provided pensions, Social Security, and retiree health benefits," *National Bureau of Economic Research* January 1994, https://www.nber.org/papers/w4613.pdf.

[31] Current PIA factors are 90 percent, 32 percent, and 15 percent. The Simpson-Bowles plan would have modified them to 90 percent, 30 percent, 10 percent, and 5 percent; the Bipartisan Policy Center plan would modify them to 95 percent, 32 percent, 15 percent, and 5 percent; and Chairman Johnson's Social Security Reform Act would modify them to 95 percent, 27.5 percent, 5 percent, and 2 percent. Any of these changes, by themselves, would reduce the additional benefits received for later years of work – even for workers who receive higher overall benefits – and thus reduce the incentive to work.

[32] Robert J. Myers, "Analysis of Proposal to Produce More Proportional Social Security Benefits," November 1982, Memorandum to the National Commission on Social Security Reform; Charles Blahous, "Social Security and Work," 2009. *National Affairs* Winter 2010, https://www.hudson.org/content/researchattachments/attachment/761/nacharlesblahoussocialsecurity&work.pdf; and C. Eugene Steuerle and Christopher Spiro, "Should the Social Security Benefit Formula Include Every Year Worked?" December 1999. *The Urban Institute*, http://webarchive.urban.org/UploadedPDF/Straight13.pdf.

[33] Social Security Reform Act of 2016, H.R. 6489, 115th Cong. (2016); Commission on Retirement Security and Personal Savings, "Securing Our Financial future: Report of the Commission on Retirement Security and Personal Savings," *Bipartisan Policy Center*, June 2016, https://bipartisanpolicy.org/wp-content/uploads/2016/06/BPC-Retirement-Security-Report.pdf.

[34] Congressional Budget Office, "Social Security and Private Saving: A Review of the Empirical Evidence," *Congressional Budget Office* July 1998, https://www.cbo.gov/sites/default/files/105th-congress-1997-1998/reports/ssprisav.pdf; see also Andrew G. Biggs, "Social Security and Private Savings – Causes and Effects," *American Enterprise Institute* September 2009, http://www.aei.org/publication/social-security-and-private-savings-causes-and-effects/; Jagadeesh Gokhale, Laurence J. Kotlikoff, and John Sabelhaus, "Understanding the Postwar Decline in U.S. Saving: A Cohort Analysis," *SSRN* October 1996, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3550; Wilbert van der Klaauw and Kennth I. Wolpin, "Social Security and the Retirement and Savings of Low Income Housholds," *Journal of Econometrics* 145(1-2), July 2008, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3091488/; Martin Feldstein, "Social Security, Induced Retirement, and Aggregate Capital Accumulation," *The Journal of Political Economy* 82(5), October 1974, http://public.econ.duke.edu/~hf14/teaching/socialinsurance/readings/Feldstein74(6.8).pdf; Eric M. Engen and William G. Gale, "Effects of Social Security Reform on Private and National Saving," *SSRN* 1997, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2462184.

[35] We suggest allowing workers to borrow against their SRAs up to the lesser of 50 percent of the balance or $50,000, as with 401(k)s. Policymakers should consider restricting loans or offering different terms for loans used for investments in owner-occupied homes, education and training expenses, or small business start-up costs. They should also consider allowing small loans for family and medical leave.

[36] Authors' estimate assuming a 3 percent carve-out is roughly equivalent to a three percentage point cut in the payroll tax plus debt service from higher deficits.

[37] Charles Blahous, "Understanding Social Security Benefit Adequacy: Myths and Realities of Social Security Replacement Rates," *Mercatus Center at George Mason University* November 2012, https://www.mercatus.org/system/files/ReplacementRates_Blahous_v1-0.pdf.

[38] Government Accountability Office, "Most Households Approaching Retirement Have Low Savings," *Report to the Ranking Member, Subcommittee on Primary Health and Retirement Security, U.S. Senate Committee on Health, Education, Labor, and Pensions* (May 2015), https://www.gao.gov/assets/680/670153.pdf.

[39] See Jeremy Burke, Angela A. Hung, and Jill E. Luoto, "Automatic Enrollment in Retirement Savings Vehicles: Evidence from the Health and Retirement Study," *RAND Corporation* (September 2015), https://www.rand.org/pubs/working_papers/WR1117.html; John Beshears, James J. Choi, David Laibson, and Brigitte C. Madrian, "The Impact of Employer Matching on Savings Plan Participation under Automatic Enrollment," *NBER Working Paper No. 13352* (August 2007), https://www.nber.org/papers/w13352; and Bipartisan Policy Center Commission on Retirement Security and Personal Savings, "Securing Our Financial Future: Report of the Commission on Retirement Security and Personal Savings," *Bipartisan Policy Center*, June 2016, http://bipartisanpolicy.org/wp-content/uploads/2016/06/BPC-Retirement-Security-Report.pdf.

[40] The Congressional Budget Office projects an exhaustion date of 2031 – four years earlier. The difference is largely driven by more optimistic economic assumptions by the Trustees; they project faster long-term economic growth, less growth in income inequality, shorter life expectancy, and higher interest rates on trust fund assets than CBO projects.

[41] Authors' extrapolation based on Congressional Budget Office, "The 2018 Long-Term Budget Outlook," *Congressional Budget Office*, June 2018, https://www.cbo.gov/system/files?file=2018-06/53919-2018ltbo.pdf.

[42] Committee for a Responsible Federal Budget, "The 75-Year Budget Outlook," October 2018, http://www.crfb.org/papers/75-year-budget-outlook.

[43] Authors' calculation based on Congressional Budget Office's "The 2018 Long-Term Budget Outlook," June 2018, https://www.cbo.gov/system/files/2018-07/51119-2018-06-ltbo.xlsx.

[44] Ibid.

[45] For example, polling by the Transamerica Center for Retirement Studies finds that more than three-quarters of respondents are worried that Social Security "will not be there for [them]" when they retire, 58 percent take into account Social Security benefits when considering their retirement strategy, and just one-fifth have "a great deal" of understanding about Social Security (from 18th Annual Transamerica Retirement study, available at https://www.transamericacenter.org/docs/default-source/retirement-survey-of-workers/tcrs2018_sr_18th_annual_worker_compendium.pdf).

[46] Francisco J. Gomes, Laurence J. Kotlikoff, and Luis M. Viceira, "The Excess Burden of Government Indecision," *National Bureau of Economic Research Tax Policy and the Economy*, Volume 26 July 2012, https://www.nber.org/chapters/c12562.pdf; Frank N. Caliendo, Aspen Gorry, and Sita Slavov, "The Cost of Uncertainty about the Timing of Social Security Reform," *NBER Working Paper* No. 21585, September 2015, https://www.nber.org/papers/w21585.pdf; and Erzo F. P. Luttmer and Andrew A. Samwick, "The Welfare Cost of Perceived Uncertainty: Evidence from Social Security," *American Economic Review*, 108 (2): 275-307, February 2018, https://users.nber.org/~luttmer/polrisk_paper.pdf.

[47] Adeline Delavande and Susann Rohwedder, "Individuals' Uncertainty about Future Social Security Benefits and Portfolio Choice," *Journal of Applied Econometrics* 26(3), March 2011, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3729115/pdf/nihms444057.pdf; John A. Turner, David M. Rajnes, and Dale Kintzel, "Retirement Readiness, Social Security Reform and the Value of Future Social Security Benefits," *Benefits Quarterly* 34, (2018 1st Quarter) 52-64.

[48] In raising the taxable maximum, policymakers will need to choose whether or not to pay more benefits based on new taxes paid. However, assuming the adoption of mini-PIA and a more progressive benefit formula, these new benefits would be modest in size.

[49] Marc Goldwein, Jason Peuquet, and Adam Rosenberg, "Measuring Up: The Case for the Chained CPI," Moment of Truth Project (March 2013), http://www.crfb.org/sites/default/files/documents/measuringupcaseforthechainedcpi.pdf.

[50] See, for example, Congressional Budget Office, "Social Security Policy Options, 2015," December 2015, https://www.

cbo.gov/publication/51011; Social Security Administration, "Individual Changes Modifying Social Security," *Social Security Administration* 2018, https://www.ssa.gov/OACT/solvency/provisions/index.html.

[51] Kent Smetters, "Is the Social Security Trust Fund Worth Anything?" *NBER Working Paper* No. 9845. (July 2003), https://www.nber.org/papers/w9845.pdf.

[52] Douglas Holtz-Eakin and Jacqueline Varas, "Building a Pro-Growth Legal Immigration System," *The Concord Coalition* 2019. https://www.concordcoalition.org/special-publication/building-pro-growth-legal-immigration-system.

[53] Congressional Budget Office, "The Economic Impact of S. 744, the Border Security, Economic Opportunity, and Immigration Modernization Act," *Congressional Budget Office* June 2013, https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/44346-immigration.pdf; Congressional Budget Office, "Letter to The Honorable Patrick J. Leahy on the estimated impact of S. 744 on the federal budget through 2033," *Congressional Budget Office* July 2013, https://www.cbo.gov/system/files?file=113th-congress-2013-2014/costestimate/s744costestaspassed.pdf.

[54] Anya Olsen and Kathleen Romig, "Modeling Behavioral Responses to Eliminating the Retirement Earnings Test," *Social Security Bulletin* 73(1) 2013. https://www.ssa.gov/policy/docs/ssb/v73n1/v73n1p39.html.

[55] Blahous, "Social Security and Work," 2009.

[56] Government Accountability Office, "Retirement Decisions: Federal Policies Send Mixed Signals about When to Retire," *United States Government Accountability Office Report to Congressional Committees* (July 2007), http://www.gao.gov/assets/270/263644.pdf.

[57] CBO projects GNP per person will total $92,000 in 2048 (https://www.cbo.gov/publication/54181). Our estimates extrapolate these numbers two years.

[58] Note that we estimate the solvency effects of our plan based on projections from the Social Security Trustees and SSA Chief Actuary, but our debt projections are based on CBO estimates – which assume a larger Social Security shortfall. For purposes of these debt estimates, we "convert" our Social Security savings, assuming the same proportion of the program's shortfall is closed each year under CBO estimates as under our Trustee estimates.

[59] Under the Johnson bill, the PIA factors would change from 90 percent-32 percent-15 percent to 95 percent-27.5 percent-5 percent-2.5 percent and the bendpoint locations would move (https://www.ssa.gov/oact/solvency/SJohnson_20161208.pdf). Under the Conrad-Lockhart plan, the taxable maximum would increase by roughly 15 percent per year for four years and then grow 0.5 percentage points faster than current law (https://www.ssa.gov/oact/solvency/BPCCRSPS_20161011.pdf).

[60] Stephen C. Goss, "Estimated Long-Range Financial Effects on Social Security of the Border Security, Economic Opportunity, and Immigration Modernization Act, legislation introduced as S. 744 (113th Congress) by Senator Marco Rubio and passed by the Senate on June 27, 2013" *Social Security Office of the Chief Actuary* (June 2013), https://www.ssa.gov/oact/solvency/MRubio_20130627.pdf.

[61] Frank N. Caliendo, Aspen Gorry, and Sita Slavov, "The Cost of Uncertainty about the Timing of Social Security Reform," *NBER Working Paper* No. 21585, September 2015, https://www.nber.org/papers/w21585.pdf.

[62] Barbara A. Butrica, Karen E. Smith and C. Eugene Steuerle, "Working for a Good Retirement," *Urban Institute Retirement Project Discussion Paper* No. 06-03, (May 2006), http://www.urban.org/research/publication/working-good-retirement.

[63] Social Security Administration Office of Retirement Policy (2015). Estimate of projected effects on beneficiaries of a proposal to allow workers to voluntarily contribute an additional 2 percent of pay (up to the tax max) to an individual account starting in 2016. https://www.ssa.gov/retirementpolicy/projections/individual-account/voluntary-2percent-2070.html.

[64] Joyce Manchester and Noah Meyerson, "Raising the Ages of Eligibility for Medicare and Social Security," *Congressional Budget Office Issue Brief* (January 2012), https://www.cbo.gov/sites/default/files/112th-congress-2011-2012/reports/01-10-2012-Medicare_SS_EligibilityAgesBrief.pdf.

[65] See Gila Bronshtein, Jason Scott, John B. Shoven, and Sita N. Slavov, "The Power of Working Longer," *National Bureau for Economic Research* January 2018, https://www.nber.org/papers/w24226; Diana Farrell, Eric Beinhocker, Ezra Greenberg, Suruchi Shukla, Jonathan Ablett, and Geoffrey Greene, "Talkin' 'Bout My Generation: The Economic Impact of Aging US Baby Boomers" June 2008, https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Economic%20Studies%20TEMP/Our%20Insights/Talkin%20bout%20my%20generation/MGI_Impact_of_Aging_Baby_Boomers_executive_summary.ashx; Giovanni Mastrobuoni, "Labor Supply Effects of the Recent Social Security Benefit Cuts: Empirical Estimates Using Cohort Discontinuities," *Princeton University* December 2006, https://www.princeton.edu/ceps/workingpapers/136mastrobuoni.pdf; Andrew G. Biggs, "The Case for Raising Social Security's Early Retirement Age," *American Enterprise Institute* October 2010, http://www.aei.org/publication/the-case-for-raising-social-securitys-early-retirement-age/; Philippe Karam, Dirk Muir, Joana Pereira, and Anita Tuladhar, "Macroeconomic Effects of Public Pension Reforms," *International Monetary Fund* December 2010, https://www.imf.org/external/pubs/ft/wp/2010/wp10297.pdf; and Ketil Hviding and Marcel Mérette, "Macroeconomic Effects of Pension Reforms in The Context of Ageing Populations: Overlapping Generations Model Simulations for Seven OECD Countries," *Organisation for Economic and Cooperation and Development* 1998, doi:10.1787/63837617707.

[66] Alan J. Auerbach, Laurence J. Kotlikoff, Darryl R. Koehler, and Manni Yu, "Is Uncle Sam Inducing the Elderly to Retire?" *NBER* Working Paper No. 22770 (October 2016), https://www.nber.org/papers/w22770.pdf.

[67] Lucie Schmidt and Purvi Sevak, "Taxes, Wages, and the Labor Supply of Older Americans," *University of Michigan Retirement and Research Center Working Paper* November 2006, https://mrdrc.isr.umich.edu/publications/papers/pdf/wp139.pdf.

[68] Congressional Budget Office, "CBO's Long-Term Social Security Projections: Changes Since 2017 and Comparisons With the Social Security Trustees' Projections," *Congressional Budget Office* December 2018, https://www.cbo.gov/system/files?file=2018-12/54711-SSProjections-Dec2018.pdf.

[69] Authors' calculation based on Congressional Budget Office, "The Deficit Reductions Necessary to Meet Various Targets for Federal Debt," *Congressional Budget Office* August 2018, https://www.cbo.gov/system/files?file=2018-08/54181-DebtTargets.pdf.

[70] Philippe Karam, Dirk Muir, Joana Pereira, and Anita Tuladhar, "Macroeconomic Effects of Public Pension Reforms," *International Monetary Fund* December 2010, https://www.imf.org/external/pubs/ft/wp/2010/wp10297.pdf.

[71] Wenliang Hou and Geoffrey T. Sanzenbacher, "The Behavioral and Consumption Effects of Social Security Changes," *Boston College Center for Retirement Research* September 2017, http://crr.bc.edu/wp-content/uploads/2017/09/wp_2017-10.pdf.

[72] Letter to the Honorable Larry E. Craig on a long-term analysis of the Social Security plan developed by Peter Diamond and Peter Orszag, *Congressional Budget Office* December 2004, https://www.cbo.gov/sites/default/files/108th-congress-2003-2004/reports/12-22-diamond-orszag.pdf.

[73] Letter to the Honorable Jim Kolbe on the long-term impact of H.R. 3821, the Bipartisan Retirement Security Act of 2004. *Congressional Budget Office* July 2004. https://www.cbo.gov/sites/default/files/108th-congress-2003-2004/reports/07-21-kolbelongtermletter.pdf.

[74] See Congressional Budget Office, "The 2019 Long-Term Budget Outlook," *Congressional Budget Office* June 2019. https://www.cbo.gov/system/files/2019-06/55331-LTBO-2.pdf.

[75] Penn Wharton Budget Model, "Options to Return Social Security to Financial Balance: The Impact on Economic Growth," *Penn Wharton Budget Model* February 2019. https://budgetmodel.wharton.upenn.edu/issues/2019/2/8/options-to-return-social-security-to-financial-balance-the-impact-on-economic-growth.