

KEY TOPICS

- ▲ **The number of American retirees is growing and has outpaced the number of workers supporting the Social Security program, threatening the program's long-term solvency.**
- ▲ **Two possible options for Social Security reform include changing the benefit formula for workers or spouses, and changing the federal income tax treatment of Social Security benefits.**
- ▲ **Possible changes to the benefit structure could affect the program's weighting of adequacy versus equity.**

Social Security Reform: Possible Changes in the Benefit Formulas and Taxation

The Social Security program has enjoyed broad public support and served as a financial safety net for elderly Americans for decades. However, the growing number of retirees, combined with a relatively smaller number of workers to support them, threatens the long-term solvency of the program. Actuaries at the Social Security Administration estimated in 2009 that, unless the program is changed, annual benefit payments and administrative expenses will exceed payroll tax income by 2016. After 2016, the program is expected to need ever-increasing amounts of cash from the U.S. Treasury. And Treasury's ability to provide such cash, represented by the Social Security trust funds, are projected to come to an end by about 2037.

To protect the program's solvency, policymakers have been considering various reform options including raising the age at which unreduced benefits are paid, reducing benefit payments, and increasing tax income. The Social Insurance Committee of the American Academy of Actuaries has extensively reviewed different reform options for Social Security.¹ However, this issue brief focuses on two possible options for reform: changing the benefit formulas for workers or spouses and changing the federal income tax treatment of Social Security benefits.

¹For example, another issue brief, [Raising the Retirement Age for Social Security](#), focuses on raising the retirement age for Social Security. Accordingly, this issue brief does not analyze alternatives relating to the raising of any of the ages at which Social Security benefits are payable.

The American Academy of Actuaries is a professional association with over 16,000 members. The Academy's mission is to assist policymakers by providing leadership, objective expertise and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice and professionalism standards for actuaries in the United States.



Background

When Social Security legislation was being drafted in the 1930s, the American public was divided on objectives for the new program. Many at the time wanted a program that was strictly based on individual equity and did not involve income redistribution. If individual equity had been established as the sole objective, benefit levels would relate directly to contribution levels. For example, a worker with twice the contribution amount of another worker would receive twice the benefit.

Others argued that the program needed to focus on social adequacy and act more as a safety net for lower-income participants. Under this argument, making a worker's benefit adequate is considered more important than basing the benefit on his or her contributions. If social adequacy were the sole objective, benefits might be the same for all workers, regardless of earnings and contribution levels, or might even be lower for high earners or for those who had saved more for retirement.

In the end, Congress established a program that combined individual equity and social adequacy. Social Security retirement benefits reflect a worker's pre-retirement earnings but are proportionately higher for low-income workers to help prevent poverty among the elderly. Certain other features of the program also favor low-income workers. The weighting of social adequacy and individual equity has been maintained to varying degrees for over 60 years.

In the 1930s, Congress did not consider the treatment of Social Security benefits for income tax purposes. Until 1983, Social Security benefits were not taxable; but that year, as part of legislation to help pay for the program, Congress changed the tax treatment of Social Security benefits for beneficiaries with significant income in addition to Social Security. For such beneficiaries, part of their Social Security benefits became subject to income taxation. In 1993, the tax treatment of Social Security benefits was changed again to subject a greater por-

tion of benefits to income taxation for some of the people whose benefits were already taxed. These changes can be viewed as an extension of the socially adequate or progressive nature of Social Security.

Proposals for Social Security reform include a wide range of changes. This issue brief discusses changes to the current benefit formulas for workers and spouses and changes to the formula for including part of Social Security benefits in taxable income.

The Current Program

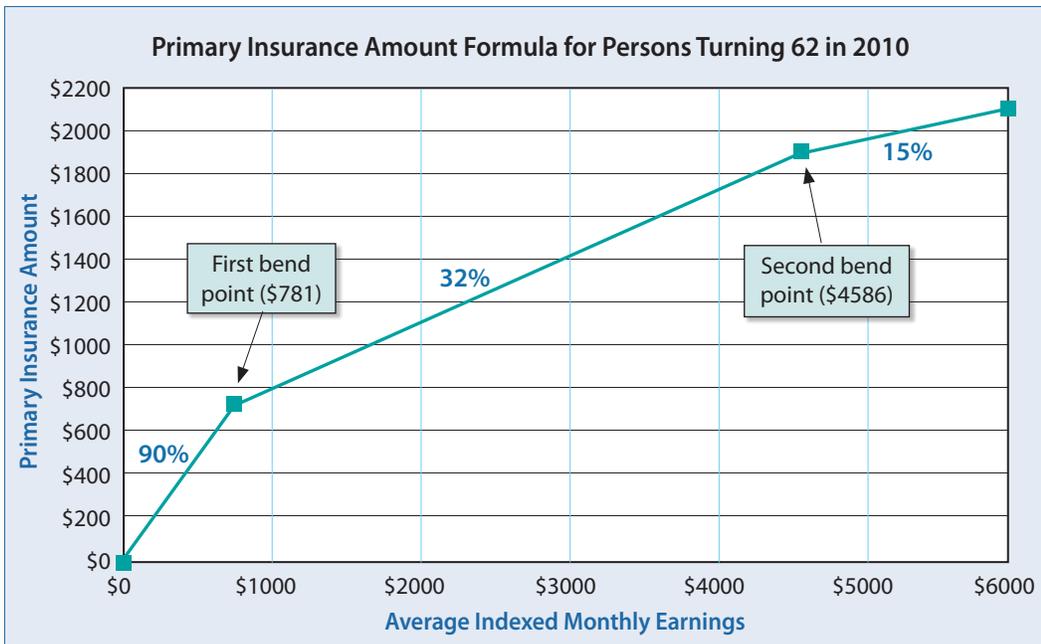
Current Benefit Formula for Workers

Determining a retired worker's monthly benefit level begins with calculating career-average earnings. Before averaging, earnings from years before the worker turns age 60 are indexed by changes in the national average wage up to the year the worker turns age 60. Earnings at ages 60 and later are included in the calculation of average wages at nominal value. Indexed earnings for the 35 highest years are averaged and divided by 12, with the resulting amount called "average indexed monthly earnings" (AIME).

The fundamental amount on which all Social Security benefits are based is the "primary insurance amount" (PIA). The PIA is calculated by multiplying 90 percent times the AIME up to the first bend point in the formula, 32 percent times the portion of the AIME that falls between the first and second bend points, and 15 percent times the AIME over the second bend point, as illustrated in the figure on the next page. The bend points, where the factors in the formula change, are dollar amounts indexed over time by increases in average wages. The 2010 bend points, for example, are \$781 and \$4,586. Indexing to wages both workers' earnings and the bend points helps ensure that initial Social Security benefits remain comparable over time for workers with similar earnings histories relative to prevailing wage levels.

From age 62 on, the PIA is indexed to changes in the consumer price index (CPI-W) beginning with December of the year the worker

Members of the Academy's Social Insurance Committee who participated in drafting this issue brief include: Janet Barr, EA, ASA, MAAA, chairperson; Michael Callahan, EA, FSPA, MAAA; Eric Klieber, EA, FSA, MAAA; Eric Lofgren, FCA, FSA, MAAA, vice chairperson; Michael Peskin, AIA, ASA, CERA, FCA, MAAA; Bruce Schobel, FSA, FCA, MAAA; Mark Shemtob, EA, ASA, MAAA, MSPA; Richard Schreitmueller, FSA, MAAA; P.J. Eric Stallard, ASA, FCA, MAAA; and Louis Weisz, FSA, MAAA.



attains age 62. This indexing continues once a worker has retired. Indexing benefits to changes in prices helps ensure that the buying power of Social Security benefits remains the same after a worker begins receiving benefits. For workers retiring at their normal retirement age (NRA),¹ the monthly benefit equals the PIA. Benefits are actuarially reduced for workers first retiring before their NRA and are increased for workers first retiring after their NRA.

Based on this PIA formula, Social Security benefits replace a higher proportion of earnings for low-paid workers. The replacement rate (i.e., the percentage of a worker's pre-retirement earnings that is replaced by Social Security) at normal retirement age can be more than twice as high for a low-wage earner (e.g., 60 percent) as for the highest-wage earner (e.g., 27 percent). For comparison, some financial advisers tell individuals they will need to replace roughly 70 percent to 80 percent of their pre-retirement income to enjoy the same standard of living after retirement as before. Social Security's progressive benefit formula is the primary way the program addresses adequacy of benefits for workers with low earnings.

The AIME for a worker who has fewer than 35 years of covered earnings will include some zero years. Such a worker's AIME will be comparable to that of a lower-earning worker with 35 years of covered earnings. Thus, the benefit formula treats these participants like lower-

wage workers in that they get proportionately higher benefits than workers with at least 35 years of covered earnings.

Current Benefit Formula for Spouses

In order to address adequacy of benefits for retired, disabled, and deceased workers with families, the program also provides auxiliary benefits for current and former spouses, children, and surviving spouses. The current structure of spouses' benefits was established when one-earner couples still predominated. At normal retirement age, the lower-paid (or non-working) spouse now receives 50 percent of the higher-paid spouse's benefit (PIA) unless the former can receive a higher benefit based on his or her own earnings history. After the higher-paid spouse dies, the surviving spouse receives 100 percent of the deceased spouse's benefit. Social Security also pays benefits to other family members in certain circumstances, including former spouses, dependent children, and parents.

Current Taxation of Benefits

The tax on a person's benefit is based on both the annual Social Security benefit and income from other sources. If a recipient's adjusted gross income (excluding the Social Security benefit) plus non-taxable interest income plus half of the Social Security benefit exceeds a specified threshold, a portion of the Social Security benefit is added to taxable income.

This threshold is \$25,000 for a single person or \$32,000 for a married couple filing jointly. Up to 50 percent of the Social Security benefit is included in taxable income for recipients whose applicable income exceeds this threshold but is less than \$34,000 for a single person or \$44,000 for a married couple filing jointly. For recipients whose applicable income exceeds this higher threshold, up to 85 percent of the Social Security benefit is included in taxable income. For married couples filing separate returns, no threshold applies.

Revenue from the 50 percent taxable portion goes to the Old-Age, Survivors, and Disability Income (OASDI) trust funds, while additional revenue from the 85 percent taxable portion goes to Medicare's Hospital Insurance (HI) trust fund. The four threshold amounts are not indexed to either price inflation or average wage growth, unlike many other dollar limits in the Social Security and tax laws.

One problem with this taxation method, besides its complexity, is that it can create very high marginal tax rates for some retirees. For example, if a worker contributes an extra \$100 to a retirement plan while working and then withdraws the \$100 in retirement, not only is the withdrawal taxed at the normal income tax rate, but it can possibly push more of the Social Security benefit above the taxation thresholds, thus making up to \$50 or \$85 of additional benefits subject to income tax. If the retiree's nominal marginal tax rate is 25 percent, the actual marginal tax rate may be as high as 1.85 times 25 percent, or 46 percent. As with any means-testing arrangement, this may discourage saving (including tax-deferred contributions to retirement plans) in the years leading up to retirement among workers potentially affected by this anomaly.

Reform Options and Possible Effects

The cost of the Social Security program may be reduced from current levels through any number of possible changes to the benefit structure. Any reduction in benefits could also affect the program's weighting of adequacy vs. equity.³

PIA Factors

One way to improve Social Security's financial condition is to gradually reduce the PIA factors (the 90 percent, 32 percent, and 15 percent

described above) in the PIA benefit formula while keeping the ratios between the factors constant. For instance, the three PIA factors could be reduced by multiplying each factor by 0.99 each year. Under this scenario, after 10 years had passed, the original factors of 90 percent, 32 percent, and 15 percent would change to about 81 percent, 29 percent, and 14 percent. This approach would maintain the progressive nature of the current program but reduce the program's adequacy, especially for lower earners and their families.

The change described above would reduce newly awarded Social Security benefits by about 1 percent per year compared with the current formula. Because wage inflation has historically averaged about 1 percent higher than price inflation, under this approach initial Social Security benefits would be expected to keep pace with the cost of living but fall behind in replacing pre-retirement income. For example, the 60 percent replacement rate mentioned earlier for low-income workers would decline after 10 years to 54 percent, although the buying power of their benefits would be expected to remain about the same as benefits awarded today under the current formula. However, their benefits would not reflect the real (adjusted for inflation) increases in wages and the standard of living during those 10 years.

Reducing the PIA factors by 1 percent each year beginning with those newly eligible for benefits would bring Social Security's long-run finances back into balance but would dramatically reduce replacement rates compared to current law. For example, the benefits of our low-income worker from above would be cut in half, from 60 percent to 30 percent, in about 70 years.

Alternatively, only the 32 percent and 15 percent factors could be reduced, not the 90 percent factor, thus increasing the progressiveness of the formula while preserving some of the adequacy level for very low earners. This approach was included in the individual account plan considered by the 1994–96 Social Security Advisory Council. Some recent proposals have gone even further by guaranteeing Social Security benefits to low-wage workers at least equal to the poverty level. Such a benefit enhancement would apply to workers having at least 30 years in covered employment, with

proportionately lower benefits for workers with 20 to 30 years. Some critics have noted that such an enhanced benefit could exceed a covered worker's wages, discouraging workers eligible to retire from continuing to work and disabled workers from returning to work. A possible solution would be to cap the enhanced benefit at the person's average indexed wage. More fundamentally, some people may dislike the addition of such an enhanced benefit, viewing it as changing the nature of Social Security from an income replacement program to a poverty or welfare program.

PIA Bend Points

The bend points used in the PIA formula are indexed to changes in the national average wage level. This approach is designed to maintain the same Social Security replacement rates from one generation to the next for workers with equivalent earnings levels. One option to improve Social Security's financial condition would be for one or both of these bend points to be indexed by a factor other than wage growth. For example, if the higher bend point was indexed by price increases rather than generally larger wage increases, it would be expected to increase more slowly than workers' career earnings levels based on historical relationships. Over time, the PIA formula would reduce program costs by providing lower benefits to high earners. This way of slowing the increase in bend points over time would not be as predictable in reducing benefits as would lowering the PIA factors themselves.

Number of Years Counted in the AIME

As noted above, benefits are now based on a worker's AIME, which is an average of wages in the highest 35 years of indexed earnings. Some proposals would increase the averaging period to 38 or 40 years, thus including years with lower earnings or zero earnings, which would reduce the AIME. This change would reduce projected future benefits, particularly for individuals with relatively short work histories. For example, the 38-year proposal would reduce benefits an average of 2 percent and would, according to a 2009 study by the Social Security actuaries, reduce the 75-year long-range actuarial deficit by 14.5 percent under the intermediate assumptions.

This proposal also would increase incentives

to extend working careers, especially because the normal retirement age is increasing from 65 to 67, thus increasing the individual equity aspect of the program. However, increasing the averaging period would have especially adverse consequences for individuals who do not have steady earnings, particularly men and women who leave paid employment to care for children. One modification that proposals have used to address this concern is to allow dropout years for child care, i.e., shortening the averaging period by excluding qualifying zero years from the calculation of AIME.

Cost-of-Living Adjustments (COLAs)

A 1996 congressional commission chaired by economist Michael Boskin suggested that the annual increase in the CPI was overstated by 1.1 percent. In response, the Bureau of Labor Statistics modified its methodology to account for consumers' tendency to substitute, among similar products, those whose prices have increased more slowly for those whose prices have increased more rapidly.

However, some economists claim that the CPI still overestimates annual increases in the cost of living. They suggest using a "superlative CPI," which takes into account the tendency for consumers to substitute products whose prices have increased more slowly for those whose prices have increased more rapidly even among unrelated categories of goods and services. This change would lower the annual increase in CPI by an estimated 0.3 percent.

Others have suggested using for Social Security purposes a separate CPI based on a typical basket of goods and services purchased by retirees—although it is unclear whether such a "retiree CPI" would be higher or lower than the regular CPI.²

Adjusting the CPI downward would improve the financial condition of the OASDI program. An alternative way to get a similar result is to set the COLA below the full percentage increase in the current CPI. For example, the COLA could be based on the annual CPI increase minus 1 percentage point. Such a formula is used for some federal employee retirement benefits. Note that a slightly different version of the CPI, namely CPI-U, is used as an important benchmark of inflation outside Social Security. It is used to compute

payments in public and private programs, including inflation-indexed Treasury bonds, and to compare economic data over time. Any proposal to redefine the CPI for Social Security purposes should be carefully designed to avoid unintended side effects in such areas.

If a reduction in the COLA were enacted, it could be instituted quickly without radical restructuring of the program, and unlike other changes, it could be applied to people already retired. That would provide a more immediate improvement to Social Security's finances. Some policymakers suggest that everyone should participate in the solution, particularly current retirees.

On the other hand, it is more difficult for retirees to handle benefit reductions, especially those with low benefits under the current program because their income levels are often fixed and most of them cannot return to work. A reduction in the COLA would have a cumulative effect on existing beneficiaries. For example, if benefits increased by 0.5 percent per year less than under the current program, the cumulative reduction would be about 5 percent after 10 years, and almost 10 percent after 20 years. This change would eliminate about 40 percent of Social Security's 75-year deficit according to the 2009 study.

Double-Deck Benefit Formula

Another plan considered by the 1994-1996 Advisory Council, the Personal Security Account Plan, would replace the current benefit formula with a "double-deck" approach. One layer would provide a flat dollar amount for all workers who had a specified minimum number of years of earnings, regardless of the amount of earnings. A second layer would provide a specified percentage of average earnings (AIME) to the same group. The first layer would represent the adequacy component of the formula (each worker would receive the same floor of protection) while the second layer would provide individual equity (high-paid and low-paid workers would receive the same rate of return on payroll tax contributions).

Both proponents and opponents of this approach agree that it would clearly identify the individual equity and social adequacy components of the benefit structure. Proponents find this a desirable end in itself, allowing elected

officials greater flexibility to make explicit decisions about the relationship between social adequacy and individual equity. Opponents believe that the approach would diminish broad public support for the Social Security program, particularly among the highly paid. They also believe that the double-deck approach would be divisive, both for increasing demands for general revenue financing and means testing of the first layer and for diluting the first layer's full wage indexing. In their view, a double-deck approach would, over the long term, erode support for both the program's social adequacy and individual equity features.

Benefits for Spouses

Some critics claim that the structure of spousal benefits is unfair to two-earner families because it gives one-earner couples proportionately greater benefits relative to their Social Security taxes. For example, suppose the two spouses have similar earnings. When both spouses are alive, the couple together receives twice the benefit either would receive alone. If one spouse had never worked in covered employment, the couple would still receive one and a half times the benefit the working spouse would receive alone. Thus, the two-earner couple pays twice the taxes of the one-earner couple, but receives benefits only a third higher. The disparity is greater after one spouse dies. In the two-earner couple, the surviving spouse receives about half of what both received as a couple. In the single-earner couple, the surviving spouse receives two thirds of what both received as a couple, which is the same amount as the surviving spouse of the two-earner couple. Thus, after the death of one spouse, the two-earner couple gets no benefit from the additional payroll taxes they paid.

Although the structure of spousal benefits clearly favors one-earner couples, Congress has never come close to changing that structure despite many proposals to do so. These proposals are often motivated at least as much by the desire to achieve greater parity between single-earner and two-earner families as to address Social Security's financial problems. For example, gradually reducing the benefit for a non-working spouse (while both spouses are living) from 50 percent to 33 percent of the PIA would eliminate about 5.5 percent of

OASDI's 75-year long-range actuarial deficit. It would also partly address the concern of two-earner couples whose second income may buy little, if any, in additional benefits. Moreover, if the survivor benefit remains 100 percent of the working spouse's benefit, the survivor would receive 75 percent rather than two thirds of the couple's benefit. This is in line with studies that show surviving spouses require about 75 percent of the income both spouses were receiving to maintain the same standard of living.

One of the three plans presented by the 1994–1996 Advisory Council developed a more complex proposal for restructuring spousal benefits. That proposal would also reduce spousal benefits to 33 percent of the primary worker's PIA and maintain the current survivor benefit rules under which the survivor receives the greater of the survivor's own worker benefit or the deceased spouse's worker benefit. The proposal would also provide a minimum benefit of 75 percent of the couple's combined benefit to the survivor. This would increase survivor benefits for many working spouses, particularly in situations where the spouses' career earnings are comparable. This proposal would improve equity between one-earner and two-earner couples through a combination of benefit increases and decreases, but at a net cost of increasing the estimated long-range cost of OASDI by about 0.18 percent of payroll, according to actuarial studies prepared for the Advisory Council. Placing a cap on the 75 percent survivor benefit guarantee equal to the average survivor benefit can reduce this cost. With the cap, the guarantee would primarily help low- and middle-income workers who might otherwise have less-adequate survivor benefits—not upper-income workers.

Changes in spousal benefits of the type discussed here would do little or nothing to strengthen Social Security financing directly. But they might help gain public support for a comprehensive reform plan.

Taxation of Benefits

The income thresholds of \$25,000, \$32,000, etc., in the benefit taxation formula could be indexed for inflation. Such indexation of the thresholds would decrease the number of future recipients whose benefits are taxed as well

as the proportion of benefits taxed. Therefore, indexing of the income threshold would reduce tax revenue and thus increase the long-range actuarial deficits of OASDI and Medicare.

Alternatively, these thresholds could be phased out explicitly instead of letting inflation erode them over time. Such a change would raise revenue and reduce the program's progressiveness.

A different kind of taxation proposal would replace the current method with one that taxes Social Security benefits like other pensions, i.e., all benefits in excess of the recipient's personal contributions would be taxed. The employee's contributions would be allocated over the expected lifetime and returned tax-free. Such a change would smooth out the progressivity of the current benefit taxation approach. Unlike most options, this proposal could be applied to currently retired workers.

Some opponents have suggested that this would hurt low-income people the most. However, it is estimated that, under this approach, 30 percent of Social Security recipients (the retirees with the smallest incomes) still would not pay any tax on their Social Security benefits due to deductions and exemptions. This reform could also fix the artificially high marginal tax rate problem mentioned earlier. Because this change would increase taxes for middle-income retirees by a substantial amount, recent proposals in this area phase in the change over ten or more years. Another objection is that administering such a formula could be troublesome.

Adopting this alternative method of taxation (assuming the proceeds are still allocated to the trust funds) would increase the trust fund balance, especially in the early years when current thresholds are still large in relation to average wage levels. Over the 75-year projection period, this change would eliminate about 14 percent of the actuarial deficit, according to the 2009 study.

Underlying Questions

Congress should consider the following policy questions before changing the benefit calculation formulas or the structure of the tax on benefits:

- To what extent is Social Security responsible for ensuring that the country is not faced with an elderly population with high poverty rates?
- Does a proposed change to the benefit formula make sense on its own, or is it purely revenue-driven?
- How much can Congress reduce the individual-equity component of the program and still retain support among middle-income and higher-income Americans?
- Should the tax on benefits continue to flow to both Social Security and Medicare, to Social Security only, or to the general fund of the U.S. Treasury? What is the true cost of this tax to today's seniors?
- How would a change in the cost-of-living adjustment affect existing beneficiaries, particularly the very elderly who currently have the highest poverty rates in the United States?

ENDNOTES

1. The NRA for workers born during 1943–54 (and becoming eligible for benefits during 2005–16) is 66.
2. An experimental CPI-E based on a typical basket of goods and services for retirees was constructed by the Bureau of Labor Statistics. Over the past 15 years, it has been approximately 0.3 percent higher per year than the CPI-W that is currently used to index Social Security benefits.
3. Where not specifically provided, all references to financial impacts on the Trust Fund balance refer to 2008 and 2009 studies done by the Social Security Office of the Chief Actuary.



AMERICAN ACADEMY *of* ACTUARIES

1850 M Street NW
 Suite 300
 Washington, DC 20036
 Tel 202 223 8196
 Fax 202 872 1948
www.actuary.org