Micro-simulation of future benefits shows how recommendations by Alan Simpson and Erskine Bowles, co-chairs of the deficit commission appointed by President Obama, would lower Social Security benefits for almost all (92 percent) of seniors entitled to benefits in 2070. The cuts would affect all age and income groups: 88 percent of young elders (ages 62-69) and 97 percent of the oldest (ages 90 and older) are projected to receive lower benefits, as are 81 percent of seniors in the lowest household income quintile, 93 percent of the middle quintile, and 97 percent of the top quintile. Major benefit reductions – of 20 percent or more below the benefits scheduled in current law – are projected to befall about one in three women and one in two men. Slightly more than one in four black and Hispanic elders would experience cuts of 20 percent or more, as would half of all white elders and nearly half (45 percent) of middle income elders. The simulations show how Social Security proposals that rely mainly on benefit cuts to achieve long-term solvency would weaken retirement income security for the children and grandchildren of today’s retirees across age, gender, income, and racial and ethnic groups.

Introduction

The co-chairs of the National Commission on Fiscal Responsibility and Reform, Erskine Bowles and Alan Simpson, proposed a package of Social Security policy changes in conjunction with their other recommendations to reduce federal budget deficits and the national debt. The proposed Social Security changes would do little to shrink the national debt in the next decade – which is the time horizon typically used for federal budget analysis – but would lead to large benefit cuts in the future. These cuts come on top of benefit reductions already scheduled in current law but not yet implemented. For example, the full-benefit retirement age is in the process of rising from 65 to 67. When that change is fully phased in, new retirees – people who are currently age 51 and younger – will see their monthly benefits cut 13-14 percent from what they would have been if the full-benefit age had remained age 65. The Bowles-Simpson Social Security proposals remain on the agenda in current budget deliberations.
NASI’s fact sheet, “Social Security Across Generations,” illustrates how the Bowles-Simpson proposals, if adopted, would significantly lower retirement benefits for the children and grandchildren of today’s retirees (Reno and Walker, 2011). This brief supplements that analysis by examining micro-simulation projections to illustrate how the co-chairs’ changes would affect the benefits of future seniors – today’s children and young adults – by age, gender, race and ethnicity, and household income. For example, a 65-year-old in 2070 is age 5 today, and someone who will be 90 in 2070 is 30 years old today.

**The Bowles-Simpson Proposals**

The co-chairs’ plan would lower Social Security benefits in three ways: it would further increase the full-benefit retirement age beyond age 67; it would lower the annual cost-of-living adjustment (COLA) for current and future beneficiaries; and it would change the formula for calculating Social Security benefits (Goss, 2010).

Their plan also includes two benefit increases intended to mitigate some of the adverse effects of the benefit cuts. A special minimum benefit would increase benefits for some workers with long careers at low pay, and a “longevity bump-up” would raise benefits after 20 years of eligibility. Other features of the co-chairs’ plan would extend Social Security coverage to newly hired state and local government workers, starting in 2020, and would raise revenues by gradually increasing the cap on earnings that are subject to Social Security contributions (currently $106,800). When fully phased in after nearly four decades, the new cap would again cover 90 percent of the aggregate earnings of workers participating in Social Security, which was the intent of Congress when it last adjusted the cap in 1977.

The Chief Actuary of Social Security estimates that the Bowles-Simpson plan would eliminate the program’s average shortfall over the next 75 years (Goss, 2010). This change in Social Security’s 75-year balance comes from the following elements of the plan:

- 7 percent from extending coverage to newly hired state and local employees;
- 30 percent from lifting the cap on taxable payroll to gradually include 90 percent of covered earnings; and
- 63 percent from net benefit reductions. The total benefit cuts (76 percent of the shortfall) would be partially offset by benefit increases (13 percent of the program’s shortfall).

By the 75th year, nearly 80 percent of the proposal’s financial savings would come from benefit cuts, while only a fifth (21 percent) would come from new revenues from lifting the cap on taxable payroll.
The Micro-Simulations

A micro-simulation is a distributional model of a future population, which can then be analyzed under different policy scenarios. Projections into the future from any model of this sort are inherently very uncertain, especially for long-term projections. For instance, the individuals who are projected as retirees in 2070 are currently children or young adults, leaving most of their adult lives simply projected in the model. Despite such great uncertainty, micro-simulation models can be useful for estimating the potential impact of policy proposals.

The estimates presented here are from the Social Security Administration (SSA)’s MINT 5 (Modeling Income in the Near Term) model, which estimates future Social Security benefits by using a mix of historical data and projections (Sarney, 2011). The historical data come from the 1990-1996 Survey of Income and Program Participation that is matched to SSA earnings histories and other administrative records up through 2004.1 With the historical data as a base, the model projects future economic and demographic patterns using the assumptions consistent with the trustees’ intermediate projections for 2008. The model projects work, marriage, death, and retirement for individuals based on observed earnings, marital histories, and education levels. The projections cover people born from 1926-2018; projections for 2070 include the entire aged population (age 62 and older), except for those projected to reside in institutions. The results compare projected Social Security benefits under the Bowles-Simpson plan with projected benefits scheduled under current law. These projections assume that individuals do not change their behavior in response to policy changes.

How Would the Bowles-Simpson Plan Affect Benefits for Seniors?

By 2070, almost all beneficiaries age 62 and older (92 percent) are projected to get less under the Bowles-Simpson plan than they are scheduled to receive under current law. Just 7 percent would have higher benefits under the plan, and 1 percent of seniors would be unaffected.2 Figure 1 and Table 1 show the size of the projected benefit cuts:

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1 For more details on the MINT 5 model, see: Haltzel et al., 2007: p. 11; Smith et al., 2007.
2 In this and most other micro-simulation projections in this brief, a small percentage of beneficiaries are projected to experience no change in their benefits under the Bowles-Simpson plan.
41 percent of beneficiaries would experience a major benefit reduction, with their benefits cut by 20 percent or more from those scheduled under current law;

23 percent would have cuts of 10-19 percent; and

28 percent would have benefits cut by up to 10 percent.

**Which Age Group Is Most Likely to Have Lower Benefits, and How Big Are the Cuts By Age?**

The oldest beneficiaries – those 90 and older – are most likely to have lower benefits (97 percent compared to 88 percent of those age 62-69) (Figure 2). The more widespread impact on the oldest beneficiaries reflects the impact of the COLA reduction, which compounds over time as beneficiaries grow older (see box on next page).

Large cuts of 20 percent or more would be experienced by a significant segment of each age group:

- 36 percent of beneficiaries age 90 and older;
- 44 percent of those age 80 to 89;
- 42 percent of those age 70 to 79; and

![Figure 2. Percent of Beneficiaries Age 62 and Older with Benefits Changed Under Bowles-Simpson Plan, By Age, 2070 (Compared to benefits scheduled under current law)](source: Micro-simulation projections from the Modeling Income in the Near Term (MiNT 5) model, Social Security Administration, Office of Retirement Policy (Sarney, 2011).)

Source: Micro-simulation projections from the Modeling Income in the Near Term (MiNT 5) model, Social Security Administration, Office of Retirement Policy (Sarney, 2011).
How is changing the cost-of-living adjustment (COLA) projected to affect seniors?
The Bowles-Simpson plan’s most immediate impact is from the COLA reduction through the chained CPI. This box elaborates on that change and how it would impact beneficiaries – particularly the oldest beneficiaries, age 90 and older – in 2070.

The co-chairs’ plan would change Social Security COLAs to be based on a different consumer price index, the chained CPI. Proponents of this index describe it as a technical correction that would make the benefit adjustments more accurately reflect the cost of living experienced by average consumers. Others maintain that the chained CPI falls short of reflecting the living costs experienced by the elderly and disabled because it does not take account of their higher out-of-pocket spending for health care (Veghte et al., 2011).

The Social Security trustees assume that the COLA under current law will average 2.8 percent per year over the long term. Shifting to the chained CPI as recommended by Bowles and Simpson is assumed to cause the COLA to rise 0.3 percentage points more slowly, or by 2.5 percent per year on average.

By 2070, switching to the chained CPI for COLAs would result in reduced benefits for nearly all (95 percent) of beneficiaries, including 100 percent of those over age 90. The impact is fairly even across the population, because all beneficiaries are affected by the yearly COLA. The effects compound over time for each individual. For instance, a retired worker who first claimed benefits at age 62 would experience a cumulative benefit cut of 2.9 percent by age 72 (after 10 years on Social Security); a 5.7 percent cut by age 82 (after 20 years), and an 8.4 percent cut by age 92 (after 30 years).

The co-chairs’ proposed “longevity benefit bump-up” would raise benefits after 20 years of eligibility by an amount equal to 5 percent of the average worker’s benefit. This would mitigate part of the adverse impact of the COLA reduction on the oldest beneficiaries, but large numbers of those over age 90 are still projected to end up with lower benefits.

How Would Women and Men Fare Under the Co-Chairs’ Plan?
Almost all women and men (90 percent and 94 percent, respectively) would have lower benefits under the plan. Those with benefits cut by 10 percent or more from those scheduled under current law include 61 percent of women and 68 percent of men. Cuts of 20 percent or more below scheduled benefits would affect about one third (34 percent) of women and nearly half (49 percent) of men.

How Would Racial and Ethnic Groups Fare?
All racial and ethnic groups would experience benefit reductions under the Bowles-Simpson plan relative to benefits scheduled in current law: 87 percent of Hispanic beneficiaries, 89 percent of black beneficiaries and 93 percent of white and other beneficiaries are projected to get less under the Bowles-Simpson plan.
Benefit cuts of 10 percent or more under the Bowles-Simpson plan in 2070 are projected for:

- 48 percent of Hispanic beneficiaries;
- 52 percent of African American beneficiaries;
- 72 percent of white beneficiaries; and
- 67 percent of beneficiaries of other racial or ethnic groups.

Many of these elders are projected to face even larger cuts. Those who would experience cuts of 20 percent or more include:

- 26 percent of Hispanic elders;
- 28 percent of African American elders;
- 48 percent of white elders; and
- 44 percent of elders of other racial or ethnic groups.

**Simulations of Household Income**

The MINT 5 model includes a complex calculation of projected household income for elderly beneficiaries. These estimates are not per-capita income, but rather include the incomes of all related individuals in the household, including spouses, adult children, or other relatives. Because household income is not adjusted for family size, the higher incomes are likely to reflect multi-person households – married couples and multi-generational households – and/or to include households in which the beneficiaries or others are still working.

Income sources include earnings from work, Social Security benefits, defined benefit pensions, and other types of regular monthly income. Unlike common measures of household income, such as those provided by the Current Population Survey, the MINT model assumes that retirees convert their financial assets into monthly income; consequently, income amounts are increased.³

In the simulations, information about wealth holdings started with wealth reported in the 1990-1996 waves of the Survey of Income and Program Participation. Projections for future years were then aligned with information about wealth holdings that were reported in the 1992 and 1998 Surveys of Consumer Finances. The projections do not yet take into account the market collapse and bursting of the housing bubble in 2008 and thereafter. The projections have a high level of uncertainty, given how far out into the future the model forecasts.

Given these methods and assumptions, quintile thresholds for projected annual household income for elderly beneficiaries in 2070, expressed in dollars adjusted to 2010 wage levels, are:

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³ That is, each year in retirement, 80 percent of a retiree’s financial assets (from defined contribution plans and other financial assets) are converted into a life annuity, and the remaining 20 percent is held as liquid financial assets. The same calculation is repeated the next year; 80 percent of remaining liquid assets are converted into a life annuity (which will reflect the fact that the annuitant is a year older) and the balance is held as liquid assets.
Less than $21,200 for the bottom quintile;
- $21,200 to $39,000 for the next-to-lowest quintile;
- $39,000 to $65,000 for the middle quintile;
- $65,000 to $113,700 for the next-to-highest quintile; and
- $113,700 or more for the top quintile.

How Big Are the Cuts by Income Levels?

Seniors across household income quintiles are projected to be affected by benefit cuts in the Bowles-Simpson Social Security plan. Those 62 and older in 2070 who would have benefits cut below those scheduled in current law include 97 percent of seniors in the top income quintile and 81 percent of those in the bottom quintile. On the other hand, 17 percent of those in the bottom quintile would experience a net benefit increase.

Beneficiaries with benefit cuts of 20 percent or more include:
- 7 percent of those in the bottom income quintile;
- 27 percent of those in the next-to-lowest income quintile;
- 45 percent of those in the middle income quintile;
- 54 percent of those in the next-to-highest income quintile;
- 73 percent of those in the top income quintile.

Notably, nearly half of middle-income seniors would have their benefits reduced by 20 percent or more under the Bowles-Simpson plan.

Co-Chairs’ Plan vs. “Payable” Benefits (A “Policy Failure” Scenario)

The Social Security program is subject to strict rules of fiscal responsibility; benefits can only be paid in full if the Social Security trust funds have sufficient assets to cover the benefit payments. Social Security resources are projected to fall short of covering all scheduled benefits in about 25 years. In their 2011 report, the Social Security trustees projected that trust fund reserves would be depleted in 2036 under their intermediate or “best estimate” scenario. After that, revenues coming into the system would cover about 77 percent of scheduled benefits, declining to about 74 percent by the end of the 75-year projection period.

Given these projections, some analysts prefer to compare benefits under various policy proposals to those that would be “payable” under current law. “Payable” benefits are defined as those that current law would allow to be paid if lawmakers failed to act between now and the projected date of trust fund depletion. Under that improbable scenario, beginning in 2036 benefits would fall to about 77 percent of those scheduled and would gradually decline to about 74 percent of scheduled benefits by the end of the 75-year projection period.
How Would Elders Fare Under the Co-Chairs’ Plan Compared to a “Policy Failure” Scenario?

The co-chairs’ plan would eliminate about 30 percent of the average long-term shortfall in Social Security by increasing revenues, while its net benefit reductions would eliminate about 63 percent of the shortfall. The revenue increase would help pay for future benefits, while the benefit cuts are expected to fall differently than they would under an across-the-board policy failure.

As shown in Table 2, about two thirds (66 percent) of beneficiaries age 62 and older in 2070 are projected to be better off under the co-chairs’ plan than under the highly unlikely policy failure scenario. This is true of about three fourths of women (74 percent) and just over half (57 percent) of men. On the other hand, about a third (32 percent) of elderly beneficiaries are projected to be worse off under the co-chairs’ plan than they would be under the policy failure scenario. Those who would be worse off under the Bowles-Simpson plan than under the policy failure scenario include:

- 24 percent of women;
- 41 percent of men;
- 33 percent of those age 62-89; and
- 15 percent of those age 90 and older.

There are many reasons to believe that lawmakers would not allow a policy failure to occur in Social Security. Lawmakers recognize that Social Security benefits are a critically important lifeline to millions of Americans, and Congress has never before failed to act to prevent precipitous benefit reductions due to depletion of Social Security reserves. Moreover, evidence shows that the American people strongly support Social Security and are willing to pay for it (Gregory et al., 2010; Reno, Bethell, and Walker, 2011). Across party lines, Democrats, Republicans and independents say they don’t mind paying for Social Security, and across age groups working Americans agree that it is critical to preserve Social Security even if it means increasing working Americans’ contributions to Social Security.

Conclusion

Social Security benefits for people retiring in the future are already being cut relative to those experienced by seniors today. The Bowles-Simpson plan would cut benefits further for nine in 10 seniors by 2070, and further cuts of 20 percent or more would affect about one third of older women and nearly half of older men. Lawmakers have many options to close Social Security’s long-term shortfall. These projections show the cumulative effect of a plan that relies mainly on benefit cuts to achieve Social Security solvency. Benefit cuts account for nearly

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4 For more information on policy options for Social Security, see Fixing Social Security: Adequate Benefits, Adequate Financing (Reno and Lavery, 2009) and “Social Security Beneficiaries Face 19% Cut; New Revenues Can Restore Balance” (Reno, Bethell, and Walker, 2011).
two thirds of the solvency impact of the Bowles-Simpson plan, on average, and for nearly 80 percent of its impact by the end of the projection period. As a consequence, the children and grandchildren of today’s retirees would experience large and widespread benefit reductions.

Table 1. Percent of Beneficiaries Age 62 and Older with Benefits Changed Under Bowles-Simpson Plan, 2070\(^1\)
(Compared to benefits scheduled under current law)

<table>
<thead>
<tr>
<th></th>
<th>Number of Beneficiaries</th>
<th>Percent with Higher Benefits</th>
<th>Percent with Lower Benefits(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>7%</td>
<td>92% 28% 23% 41%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>49,120,858</td>
<td>9%</td>
<td>90% 30% 27% 34%</td>
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<tr>
<td>Male</td>
<td>41,543,262</td>
<td>6%</td>
<td>94% 25% 19% 49%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62-69</td>
<td>28,295,522</td>
<td>11%</td>
<td>88% 32% 18% 39%</td>
</tr>
<tr>
<td>70-79</td>
<td>35,132,012</td>
<td>7%</td>
<td>92% 26% 25% 42%</td>
</tr>
<tr>
<td>80-89</td>
<td>21,292,015</td>
<td>5%</td>
<td>94% 27% 23% 44%</td>
</tr>
<tr>
<td>90+</td>
<td>5,944,571</td>
<td>2%</td>
<td>97% 23% 38% 36%</td>
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<td>Race/Ethnicity</td>
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<tr>
<td>Hispanic</td>
<td>18,944,228</td>
<td>12%</td>
<td>87% 39% 22% 26%</td>
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<tr>
<td>White</td>
<td>52,371,239</td>
<td>5%</td>
<td>94% 22% 24% 48%</td>
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<tr>
<td>Black</td>
<td>10,310,746</td>
<td>10%</td>
<td>89% 38% 24% 28%</td>
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<tr>
<td>Other</td>
<td>9,037,907</td>
<td>6%</td>
<td>93% 27% 23% 44%</td>
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<tr>
<td>Household Income</td>
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<tr>
<td>Highest Quintile</td>
<td>17,423,298</td>
<td>3%</td>
<td>97% 9% 15% 73%</td>
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<tr>
<td>2nd Highest Quintile</td>
<td>17,942,997</td>
<td>4%</td>
<td>96% 19% 23% 54%</td>
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<tr>
<td>Middle Quintile</td>
<td>18,764,201</td>
<td>6%</td>
<td>93% 24% 24% 45%</td>
</tr>
<tr>
<td>2nd Lowest Quintile</td>
<td>19,067,794</td>
<td>7%</td>
<td>92% 35% 30% 27%</td>
</tr>
<tr>
<td>Lowest Quintile</td>
<td>17,465,830</td>
<td>17%</td>
<td>81% 52% 23% 7%</td>
</tr>
</tbody>
</table>

1 A small percentage of beneficiaries are projected to have no change in their benefits in 2070.
2 Percents may not add due to rounding.
Source: Micro-simulation projections from the Modeling Income in the Near Term (MINT 5) model, Social Security Administration, Office of Retirement Policy (Sarney, 2011).
Table 2. Percent of Beneficiaries Age 62 and Older with Benefits Changed Under Bowles-Simpson Plan, 2070\(^1\)
(Compared to benefits payable under current law)

<table>
<thead>
<tr>
<th>Number of Beneficiaries</th>
<th>Percent with Higher Benefits</th>
<th>Percent with Lower Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>90,664,120</td>
<td>66%</td>
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<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>49,120,858</td>
<td>74%</td>
</tr>
<tr>
<td>Male</td>
<td>41,543,262</td>
<td>57%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62-69</td>
<td>28,295,522</td>
<td>66%</td>
</tr>
<tr>
<td>70-79</td>
<td>35,132,012</td>
<td>65%</td>
</tr>
<tr>
<td>80-89</td>
<td>21,292,015</td>
<td>65%</td>
</tr>
<tr>
<td>90+</td>
<td>5,944,571</td>
<td>82%</td>
</tr>
</tbody>
</table>

\(^1\) A small percentage of beneficiaries are projected to have no change in their benefits in 2070.

Source: Micro-simulation projections from the Modeling Income in the Near Term (MINT 5) model, Social Security Administration, Office of Retirement Policy (Sarney, 2011).
References


The Social Security legislation of 1983 achieved the important goal of remedying a short-term imbalance in the Social Security system. Some policymakers propose changes that could undermine the adequacy of Social Security benefits going forward and can close Social Security’s long-term financing shortfall without further benefit cuts.

Benefits are being cut by 19 percent.

Gradually raising the full-benefit retirement age from 65 to 67 (13.3 percent cut) and increasing the annual adjustment (COLA) by 6 months (1.4 percent cut).

In 1972, the Bureau of Labor Statistics (BLS) produced only one consumer price index (CPI). It measures the price level of all items that the typical urban resident purchased in 1963-65. Since 1972, amendments used this CPI as the measure of inflation and it remains the basis for determining Social Security cost-of-living adjustments (COLAs). In 1988, BLS launched a third, experimental index, the CPI-E, which reflects the spending of a larger group of consumers than the CPI-U, including those who do not work outside the home. The CPI-E measures inflation in the price of a representative market basket of goods and services purchased by their respective fixed price family expenditure classes. The CPI-E, by design, includes more items that rose more in price (say, Granny Smith apples) and more of those whose prices rose less or fell. Hence, an increase in the CPI-E corresponds to a smaller increase in the CPI-U.

Inflation over time in the price of a representative market basket of goods and services purchased by their respective fixed price family expenditure classes.

Current Proposals

Some budget analysts and policymakers recommend shifting to the chained CPI-U to adjust Social Security benefits. The chained CPI-U assumes that individuals substitute goods and services for each other as prices change, which is a more realistic assumption than the CPI-U’s assumption that people continue to purchase the same goods and services (anchoring). As a result, the chained CPI-U is generally lower than the CPI-U, and Social Security benefits based on it would be lower than Social Security benefits based on the CPI-U. The chained CPI-U has risen about 0.3 percentage points more slowly per year than the revised CPI-W.

Findingsofthe 2011 Trustees Report

Social Security Brief No. 36
Virginia P. Reno, Elizabeth Lamme, and Elisa A. Walker, May 2011

Social Security Finances: Findings of the 2011 Trustees Report

Social Security Brief No. 36
Virginia P. Reno, Elizabeth Lamme, and Elisa A. Walker, May 2011

Should Social Security’s Cost-of-Living Adjustment Be Changed?

Social Security Fact Sheet No. 2
Benjamin W. Veghte, Virginia P. Reno, Thomas N. Bethell, and Elisa A. Walker, April 2011

Fixing Social Security: Adequate Benefits, Adequate Financing

Policy options to bring Social Security into long-range balance in ways that address concerns about benefit adequacy.

Virginia P. Reno and Joni Lavery, October 2009