Distributional Effects of Reducing the Cost-of-Living Adjustments

by Anya Olsen

Each year, Social Security benefits increase automatically with the cost-of-living adjustment (COLA), which is based on the rise in the consumer price index for urban wage earners and clerical workers (CPI-W). The analysis uses Modeling Income in the Near Term (MINT) projections to compare the distributional effects of three policy options discussed by the Social Security Advisory Board to improve system solvency: (1) reduce the COLA by 0.5 percentage points, (2) reduce the COLA by 1 percentage point, or (3) reduce the COLA by using the chained-CPI instead of the CPI-W. The effect of the COLA reductions would be cumulative over time, causing benefit reductions to increase the longer benefits are received. Certain groups of beneficiaries who tend to receive benefits for longer than average— including older beneficiaries, women, whites, widow(er)s, those with higher levels of education and income, and retired disabled individuals— will experience larger benefit reductions.

Summary

This policy brief analyzes the distributional and solvency effects of reducing the annual Social Security cost-of-living adjustment (COLA). Social Security's COLA is based on increases in the consumer price index for urban wage earners and clerical workers (CPI-W) and is intended to ensure that benefits maintain their purchasing power over time. This analysis compares the three COLA options set forth by the Social Security Advisory Board in its report, *Social Security: Why Action Should be Taken Soon*:

1. reduce the COLA by 0.5 percentage points (half-point option),

2. reduce the COLA by 1 percentage point (one-point option), and

3. reduce the COLA by using the "superlative" or "chained" consumer price index (chained-CPI) instead of the CPI-W (chained-CPI option).[1]

The distributional analysis for each COLA option is based on the Social Security Administration's (SSA's) Modeling Income in the Near Term (MINT) projections, and the results pertain to Social Security beneficiaries aged 62 or older in the years 2030, 2050, and 2070.[2] The benefits under each COLA option are compared with the benefits scheduled under current law (scheduled benefits). In addition, the actual benefits that could be paid without any changes to current law (payable benefits) are compared with scheduled benefits as an additional

reference point. Solvency estimates are from SSA's Office of the Chief Actuary (OACT), and both the distributional and solvency results are based on the COLA changes beginning December 2006.[3]

Major Findings

- The effect of the COLA reductions would be cumulative over time, causing benefit reductions to increase the longer benefits are received. Therefore, certain groups of beneficiaries who tend to receive benefits longer than average would experience larger benefit reductions. These groups include older beneficiaries, women, whites, those with higher levels of education, those with higher income, widow(er)s, and retired disabled individuals. For example, under the half-point option in 2070, those beneficiaries aged 62–69 would experience a 2.9 percent benefit reduction while those aged 80–89 would experience a 10.9 percent benefit reduction compared with scheduled benefits. Under payable benefits, all beneficiaries would experience the same percentage reduction, regardless of how long they received benefits.

- Poverty rates would increase under the policy options, but would be largest for the oldest old, blacks, the never married, and those with lower levels of education and income. For example, under the half-point option in

2070, the beneficiary poverty rate more than doubles from 0.5 percent under scheduled benefits to 1.2 percent for those aged 90 or older. Poverty increases would be greater under payable benefits, as this option results in larger benefit reductions compared with scheduled benefits than do the COLA options.

- The COLA options would improve system solvency by reducing scheduled benefits. Reducing the COLA by 0.5 percentage points would eliminate about 40 percent of the long-range actuarial balance; reducing the COLA by 1 percentage point would eliminate about 78 percent of the actuarial balance; and using the chained-CPI instead of CPI-W for the COLA would eliminate about 18 percent of the actuarial balance. Although the three COLA options would not achieve solvency on their own, payable benefits would do so by reducing scheduled benefits to only pay benefits that are equal to incoming revenues.

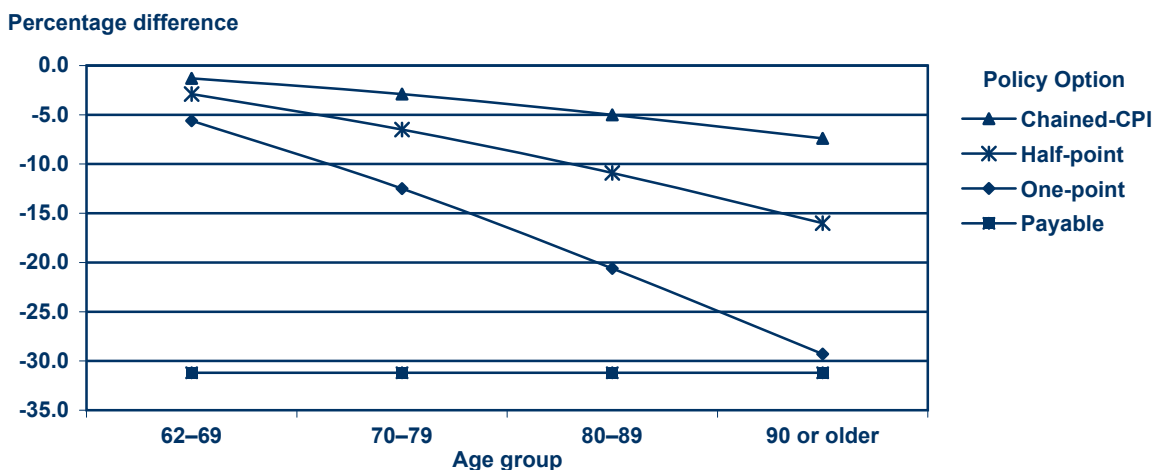### Current Law COLA is Based on the CPI-W

The Social Security cost-of-living adjustments have been in effect since 1975, with benefits payable in December (received by the beneficiary in January) of each year.[4] COLAs are based on changes to the CPI-W from the third quarter of the prior year to the corresponding quarter of the current year. These data are published annually by the Bureau of Labor Statistics. The Social Security Advisory Board developed three

different options that would each reduce the annual COLA by different amounts.[5] The first two COLA options would reduce the CPI-W by 0.5 percentage points and 1 percentage point, respectively. The third option for COLA reduction would replace the CPI-W with the chained consumer price index for all urban consumers (chained-CPI). The CPI-W is based on a market basket of goods and services and measures the average price changes of those goods and services over time. In contrast, the chained-CPI allows for substitutions within item categories, accounting for the fact that consumers switch to lower priced goods as the prices of other goods increase (for example, buying chicken if the price of beef goes up). The Office of the Chief Actuary determined that the effect of using the chained-CPI in place of the CPI-W would amount to a 0.22 percentage point decrease in the COLA.[6]

COLA Reductions are Cumulative Over Time

The effect of reducing the COLA under each of the three options would be cumulative over time for individual beneficiaries. This means that those beneficiaries who receive benefits the longest would have the largest reductions. There are several main groups that fall into this category: older beneficiaries, women, whites, those with higher levels of education, those with higher income, widow(er)s, and the retired disabled population. As chart 1 shows, older beneficiaries have much larger benefit reductions than

Chart 1.

Average individual benefit difference as a percentage of scheduled benefits for beneficiaries aged 62 or older in 2070, by policy option and age group

Percentage difference

Policy Option
- Chained-CPI
- Half-point
- One-point
- Payable

Age group: 62–69, 70–79, 80–89, 90 or older

SOURCE: Author's calculations using Modeling Income in the Near Term (MINT) data.
NOTE: CPI = consumer price index.

those in the younger age categories. For example, in 2070 under all three options, beneficiaries in the 90 or older age group would experience benefit reductions that are between 5.2 and 5.7 times greater than those aged 62–69 compared with scheduled benefits. Under payable benefits, all of the groups in 2070 would receive the same 31.2 percent benefit reduction compared with scheduled benefits.[7]

Because women tend to live longer than men, they will be more likely to receive Social Security benefits for a longer period of time, which equates to larger benefit reductions for women under all three COLA options.[8] As table 1 shows, women have been receiving benefits for an average of 3.7 years longer than men, and under the half-point option in 2070, women would receive an 8.5 percent benefit reduction, while men would receive a 6.4 percent benefit reduc-

tion compared with scheduled benefits. In addition, whites, persons with higher levels of education, and those in the higher current-income quintiles tend to receive benefits longer than other groups, resulting in larger benefit reductions. For example, in 2070 under the half-point option, individuals with graduate degrees have been receiving benefits for an average of 15.3 years and experience a 7.7 percent benefit reduction, while those with less than a high school diploma have been receiving benefits for an average of 14.2 years and experience a 6.9 percent reduction compared with scheduled benefits.

Under the half-point option in 2070, the survivor-only group would experience a benefit reduction that would be twice as large as that for the retired-worker group (see table 1). Beneficiaries who receive survivor benefits, either independently or in addition to a

Table 1.

Average individual benefit difference as a percentage of scheduled benefits and average length of benefit receipt for beneficiaries aged 62 or older in 2070

Beneficiary characteristic and benefit type	Policy option			Payable benefits	Average length of benefit receipt (years)
	Chained-CPI	Half-point	One-point		
Sex					
Men	-2.9	-6.4	-12.2	-31.2	13.0
Women	-3.9	-8.5	-16.0	-31.2	16.7
Race/ethnicity					
White	-3.7	-8.0	-15.2	-31.2	16.0
Black	-3.4	-7.4	-13.9	-31.2	15.0
Hispanic	-3.0	-6.7	-12.7	-31.2	14.3
Other	-3.3	-7.2	-13.6	-31.2	13.3
Education					
Graduate	-3.5	-7.7	-14.5	-31.2	15.3
Bachelor	-3.5	-7.8	-14.7	-31.2	15.3
Associate	-3.6	-7.8	-14.8	-31.2	15.7
High school	-3.4	-7.6	-14.3	-31.2	15.1
Less than 12 years	-3.2	-6.9	-13.1	-31.2	14.2
Current-income quintile					
Highest	-3.8	-8.4	-15.7	-31.2	16.3
Second highest	-3.4	-7.5	-14.2	-31.2	14.5
Middle	-3.3	-7.3	-13.8	-31.2	14.4
Second lowest	-3.4	-7.5	-14.2	-31.2	15.2
Lowest	-3.5	-7.6	-14.2	-31.2	15.7
Benefit type					
Retired-worker	-2.8	-6.3	-12.1	-31.2	12.3
Spousal and worker	-2.6	-5.8	-11.0	-31.2	10.9
Spousal-only	-2.8	-6.3	-11.9	-31.2	9.7
Survivor and worker	-5.4	-11.8	-21.9	-31.2	21.9
Survivor-only	-5.8	-12.6	-23.3	-31.2	21.9
Retired disabled	-4.6	-10.1	-18.8	-31.2	24.4
Current disabled	-2.3	-5.1	-9.8	-31.2	11.5

SOURCE: Author's calculations using Modeling Income in the Near Term (MINT) data.
NOTE: CPI = consumer price index.

worker benefit, tend to be mostly women and older than those in other beneficiary categories. As stated previously, women, on average, will receive Social Security benefits for a longer period of time than persons in other beneficiary categories. In 2070, women would make up one-half of the projected retired-worker group, while the projected survivor-only group would be comprised of about 92 percent women. Also, the average survivor-only beneficiary would receive benefits for almost 22 years compared with only about 12 years for retired workers. This equates to roughly 10 additional years of being subjected to the COLA reductions for the survivor group, resulting in larger benefit reductions.

Because disabled persons can collect benefits at earlier ages than retirees, those who survive to older ages would have more years of being subjected to the COLA reductions, also resulting in larger benefit reductions (see table 1).[9] Individuals who receive disability benefits can begin collecting them at any age, as long as they meet specific requirements.[10] In 2070, the average age of beneficiaries in the retired disabled group is projected to be about 77 years old, compared with 75.5 for the retired-worker group.[11] However, the average benefit-start age for those in the retired disabled beneficiary group in the same year is projected to be about 53, compared with about 63 for retired-worker beneficiaries. Although beneficiaries in these two groups would have similar average ages in 2070, the much younger average start age for the

retired disabled group would result in more years of receiving Social Security benefits and more years of COLA reductions.

Although the effects of the COLA reductions for individuals are cumulative over time, for the overall beneficiary population aged 62 or older around 2045, average benefit differences from scheduled benefits would begin to level off at -3.5 percent for the chained-CPI option, -7.6 percent for the half-point option, and -14.4 percent for the one-point option (see chart 2). The reductions would level off over time because the plans become fully implemented—meaning all new and current beneficiaries would be subjected to the COLA reductions.[12] As older beneficiaries with larger benefit reductions pass on, younger beneficiaries with smaller benefit reductions would be added to the rolls, keeping the benefit reductions level over time. Under the payable benefits reference point, benefits would be reduced substantially for all beneficiaries after the combined Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds are projected to be exhausted.

Poverty Rates Increase the Most for the Oldest Old and for Those with Higher Poverty Rates Under Scheduled Benefits

Although poverty rates would increase under each of the three COLA options, certain groups would be more vulnerable than others. For example, those in the older age groups would experience larger increases in

Chart 2.
Average benefit reductions compared with scheduled benefits level off over time for the overall beneficiary population aged 62 or older, by policy option
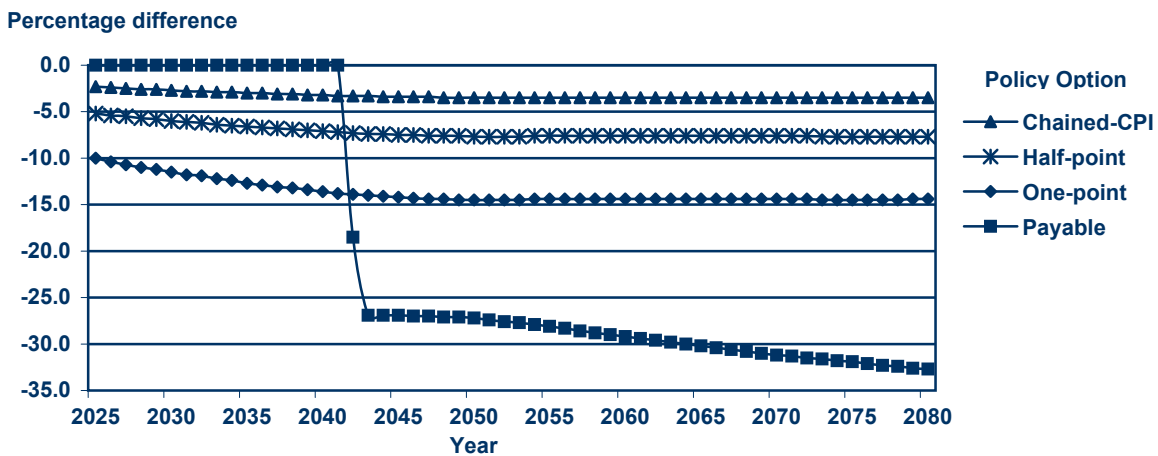
Percentage difference

SOURCE: Author's calculations using Modeling Income in the Near Term (MINT) data.
NOTE: CPI = consumer price index.

Table 2.
Poverty rate (in percent) and average length of benefit receipt for beneficiaries aged 62 or older in 2070, by age group and policy option

| Age group | Scheduled benefits | Policy option | | | Payable benefits | Average length of benefit receipt (years) |
		Chained-CPI	Half-point	One-point		
62–69	0.6	0.7	0.7	0.9	2.1	5.1
70–79	0.6	0.7	0.7	1.0	1.9	12.7
80–89	0.6	0.7	1.0	1.6	2.8	22.1
90 or older	0.5	0.9	1.2	2.0	2.1	33.6

SOURCE: Author's calculations using Modeling Income in the Near Term (MINT) data.
NOTE: CPI = consumer price index.

poverty than those in the younger age groups because they would receive benefits for a longer period of time, subjecting them to more years of COLA reductions. As table 2 shows, those in the 80–89 age group in 2070 would have received benefits for an average of 22 years, while those in the 90 or older age group would have received benefits for almost 34 years. Under the half-point option in 2070, the percent of beneficiaries aged 90 or older in poverty would more than double from 0.5 percent (62,000 in poverty) under scheduled benefits to 1.2 percent (137,000 in poverty). Under the one-point option, the percent of those aged 90 or older in poverty would increase even more to 2.0 percent (229,000 in poverty). Under payable benefits, poverty would increase more than under the COLA options compared with scheduled benefits. Because benefit reductions would be equal for all groups, poverty rates would be fairly similar across the age groups.

In addition to the oldest old, other groups would experience larger increases in poverty rates compared with scheduled benefits. These groups include blacks, the never married, those with less than 12 years of education, and those in the lowest current-income quintile (see table 3). Each of the three COLA options would reduce benefits compared with the rise in the cost of living, while poverty thresholds would continue to increase based on the CPI. This could cause those who were near poverty under scheduled benefits to fall into poverty because of the COLA reductions. In addition, although individuals in these groups would receive smaller benefit reductions under each of the COLA options, as shown in table 1, Social Security would represent a larger share of their total income. Therefore, the reductions in benefits would affect their total income more adversely than the other

Table 3.
Poverty rate for beneficiaries aged 62 or older in 2070 (in percent)

Beneficiary characteristic and benefit type	Scheduled benefits	Half-point option
Race/ethnicity		
White	0.3	0.5
Black	1.5	2.1
Hispanic	0.7	1.0
Other	1.2	1.2
Marital status		
Married	0.1	0.1
Widowed	0.2	0.6
Divorced	0.7	1.1
Never Married	3.9	4.7
Education		
Graduate	0.0	0.0
Bachelor	0.0	0.0
Associate	0.7	0.9
High school	0.6	0.9
Less than 12 years	2.7	3.5
Current-income quintile		
Highest	0.0	0.0
Second highest	0.0	0.0
Middle	0.0	0.0
Second lowest	0.0	0.0
Lowest	3.1	4.3
Benefit type		
Retired-worker	0.7	0.8
Spousal and worker	0.0	0.0
Spousal-only	0.0	0.0
Survivor and worker	0.1	0.3
Survivor-only	0.9	2.0
Retired disabled	1.1	1.9
Current disabled	1.0	1.2

SOURCE: Author's calculations using Modeling Income in the Near Term (MINT) data.

groups, resulting in higher poverty rates. For example, under the half-point option in 2070, individuals in the lowest current-income quintile would receive a 6.2 percent reduction in total income compared with scheduled benefits, while those in the highest current-income quintile would only receive a 1 percent reduction in total income from the COLA reduction.

It is worth noting that the number of persons in poverty and the poverty rates under scheduled benefits and the three COLA options would decline over time. This is not because of any change in Social Security policy or any proposals to change it, but because the poverty threshold grows with inflation while household income grows at the generally higher rate of wage growth.

COLA Reductions Would Improve System Solvency

As measured by the actuarial balance, the COLA reduction options would improve system solvency by reducing scheduled benefits. The actuarial balance is the amount that the Social Security payroll tax would have to be increased today to eliminate the 75-year funding shortfall. The one-point option is the largest reduction and would improve system solvency the most, improving the actuarial balance of -1.92 to -0.43, as opposed to the chained-CPI option, which only improves the actuarial balance to -1.58 (see table 4). By definition, payable benefits would fix 100 percent of the actuarial imbalance by paying out benefit levels equal to tax receipts.

Table 4.
Effect of reducing the cost-of-living adjustment on system solvency

	Policy option		
	Chained-CPI	Half-point	One-point
Change in actuarial balance as a percentage of taxable payroll	0.34	0.76	1.49
Percentage of long-range actuarial imbalance, fixed	17.70	39.60	77.60
Percentage of annual shortfall in the 75th year, fixed	9.50	21.10	40.40

SOURCE: Memo from the Social Security Office of the Chief Actuary, Estimated OASDI Long-Range Financial Effects of Several Provisions Requested by the Social Security Advisory Board, available at http://www.ssab.gov/documents/advisoryboardmemo--2005tr--08102005.pdf.
NOTE: CPI = consumer price index.

Notes

[1] The report, *Social Security: Why Action Should be Taken Soon*, by the Social Security Advisory Board is available at http://www.ssab.gov/documents/WhyActionShouldbeTakenSoon.pdf.

[2] The simulations of the COLA policy options use data from the MINT model and are compared with benefits scheduled to be paid under current law (scheduled benefits) and benefits payable without any other changes to current law (payable benefits). The comparison is a static one with no behavioral response to the policy options' effect on benefits or income. The MINT model is based on Social Security administrative data matched to the Survey of Income and Program Participation (SIPP). Work, marriage, retirement, and death are projected for real and imputed individuals based on real earnings, marital histories, and education levels.

[3] For the estimated OASDI long-range financial effects of the COLA options and other alternatives, see the August 10, 2005, memorandum from SSA's Office of the Chief Actuary to the Social Security Advisory Board, available at http://www.ssab.gov/documents/advisoryboardmemo--2005tr--08102005.pdf. The actuaries estimate the COLA options to begin December 2006 based on the intermediate assumptions from the 2005 Trustees Report (the December 2006 benefit is received by the beneficiary in January 2007). SSA's Office of the Chief Actuary has updated its analysis of the Social Security Advisory Board proposals

based on the 2008 Trustees Report, which is available at http://www.socialsecurity.gov/OACT/solvency/provisions/index.html.

[4] Public Law 92-336 was signed into law by President Richard Nixon on July 1, 1972. It authorized a 20 percent cost-of-living allowance effective September 1972, and the law established the procedures for issuing automatic COLAs each year beginning in 1975.

[5] The changes to the COLA outlined by the Social Security Advisory Board only affect Old-Age, Survivors, and Disability Insurance (OASDI) benefits and do not affect Supplemental Security Income (SSI) benefits. If OASDI COLAs are changed, but SSI COLAs are not, then SSI will hold its participants harmless against reductions in the OASDI COLA. This means that each dollar reduction in the OASDI benefit will be offset by an equal increase in the SSI benefit.

[6] The Social Security Advisory Board notes in their report that many experts believe that the CPI currently overstates the rate of inflation. For a discussion of this issue, see *Social Security Cost-of-Living Adjustments and the Consumer Price Index,* by Clark Burdick and Lynn Fisher, available at http://www.socialsecurity.gov/policy/docs/ssb/v67n3/v67n3p73.html. Burdick and Fisher discuss other issues related to the CPI and inflation, including a CPI measure for the elderly and implementation concerns regarding the chained-CPI measure.

[7] The payable benefits modeled in MINT are based on the 2004 Trustees Report, available at http://www.ssa.gov/OACT/TR/TR04/index.html.

[8] For the current Social Security Trustees Report estimated period and cohort life expectancy figures, see http://www.ssa.gov/OACT/TR/TR08/V_demographic.html#90100.

[9] Disabled individuals are less likely than the total population to survive to full retirement age. For disabled persons in the MINT population born from1960 through 2017, only 72.5 percent reached full retirement age compared with 88.5 percent of the total population.

[10] Social Security pays benefits to people who cannot work because they have a medical condition that is expected to last at least 1 year or result in death. Disabled persons must also meet two different earnings tests. For more information on disability benefits, see http://www.ssa.gov/pubs/10029.html#part2.

[11] A retired disabled beneficiary is one who received disability benefits, but converted to retirement benefits upon reaching full retirement age. A current disabled beneficiary is one who receives disability benefits and has not reached his or her full retirement age. The earliest age at which a retired worker can begin receiving benefits is 62.

[12] Beneficiaries who are in their first year of eligibility for receiving Social Security benefits (age 62 for retired-worker benefits; whichever is earlier between year of disability onset or attaining age 62 for disability benefits; and whichever is earlier between year of death or reaching age 62 for survivor benefits) are not affected by the COLA reductions because they have not yet received a COLA. Beginning in December of their first year of eligibility, the beneficiary's primary insurance amount (PIA),

upon which monthly benefits are based, will be subject to the first reduced COLA. For example, if a retired worker was age 62 in March 2012, he or she would receive the first reduced COLA in December 2012 (this benefit would be received by the beneficiary in January 2013). Therefore, the COLA reductions would be applied before some beneficiaries actually start receiving benefits. For example, if a retired worker began receiving benefits when he or she turned age 65 in June 2015, his or her benefit would include three annual COLA reductions starting in December 2012. For the purpose of this policy brief, average length of benefit receipt is used to explain distributional results because that is a reference point that can be more clearly defined than year of first eligibility.

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