



Accessible Version

January 28, 2019

The Honorable Virginia Foxx  
Ranking Member, Committee on Education and Labor  
House of Representatives

The Honorable Tim Walberg  
House of Representatives

**RETIREMENT SECURITY: Alternate Price Indexes for Cost-of-Living Adjustments Present Tradeoffs**

Federal benefits programs often include cost-of-living adjustments (COLA) to ensure that benefits keep pace with inflation and to maintain the purchasing power of those benefits. These COLAs are often based on consumer price indexes (CPI), which measure the average change in the prices of goods and services over time. Several federal retirement programs adjust benefits using the CPI for Urban Wage Earners and Clerical Workers (CPI-W) after initial benefits have been set, including military pensions, federal employee pensions, and Social Security, one of the largest federal programs that pays benefits to more than 60 million older Americans and workers with disabilities.

The CPI-W was constructed to reflect price increases for urban wage earners and clerical workers, based on the goods and services typically purchased by this population, but some economists have argued that the CPI-W may overestimate the true cost of living in general because individuals can partially offset the effect of relative price increases by purchasing different goods and services. Other economists have argued that it may underestimate the true cost of living for retirees by misrepresenting the goods and services that older Americans consume. Specifically, older Americans devote a substantially larger share of their total budgets to medical care and shelter than others, and costs for medical care and shelter have generally increased more rapidly than costs for most other goods and services.

You asked us to describe the effects of various price indexes on older Americans' retirement security. This report provides information on the benefits and disadvantages of alternate price indexes for measuring the cost of living for older Americans. In December 2018, we briefed Representative Walberg and his staff on the results of our review. This report publishes the briefing we provided the committee (see enclosure I).

To conduct this work, we interviewed agency officials and reviewed federal publications, which we identified by interviewing agency officials and searching agency websites. These agencies were the Social Security Administration (SSA), Department of Labor, Department of the Treasury, Congressional Budget Office, and Congressional Research Service. We also analyzed CPI data from the Department of Labor's Bureau of Labor Statistics (BLS) as well as other data from SSA to calculate hypothetical COLAs that could have been used if the Social

Security COLA were based on an alternate CPI over the 2003–2033 period. To do so, we used third quarter historical CPI data and assumed future CPI data during that time period. For historical data, we used BLS data from 2003 through the most recent year data were available across all indexes, and for future data we used information from SSA's Office of the Chief Actuary based on the intermediate assumptions in the 2018 Trustees Report.

The calculations for these hypothetical beneficiaries are illustrative and may not be representative of actual beneficiaries' experiences. Moreover, the calculations and assumptions reflect the recent low-inflation environment, and results may be different in a high-inflation environment. Further, BLS has modified its methodology over time and may continue to do so in the future. However, we believe these calculations illustrate what the potential effects might have been if an alternate CPI had been used.

For the federal retirement programs within our scope, the COLAs are generally based on the third quarter CPI-W. While we created the hypothetical calculations for Social Security benefits, we believe that the overall trends would hold for other federal retirement programs as well. We also used data from the 2016 Survey of Consumer Finances to understand the average share of total retirement income that Social Security benefits comprise. We assessed the reliability of the data by reviewing relevant documentation and internal controls, interviewing agency officials, and comparing our calculations to published data. We found the data we used to be reliable for our purposes (see enclosure II for a more detailed description of our scope and methodology).

We conducted this performance audit from May 2018 to January 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

## **Background**

BLS produces four CPIs, including three official indexes published on its website and an experimental index that is available on request:

- CPI-W: The CPI for Urban Wage Earners and Clerical Workers. First published in 1921, it was the only national CPI when the Social Security Administration began indexing benefits in 1975. It represents the types of expenditures made by about 29 percent of the U.S. population.<sup>1</sup>
- CPI-U: The CPI for All Urban Consumers. First published in 1978, when it became the headline index, it represents the types of expenditures made by about 93 percent of the U.S. population, including retired individuals.
- CPI-E: The CPI for the Elderly. Created in 1988 at the request of Congress, this index addresses spending patterns of those age 62 and older by shifting the weights for certain expenditures such as medical care and shelter. BLS considers this index

---

<sup>1</sup> From 1978 through 1980, BLS found little difference between data for CPI-W and for those of the newly introduced Consumer Price Index for All Urban Consumers (CPI-U). According to BLS, as a result of this and budgetary issues, BLS stopped collecting separate data for the CPI-W in 1981 and began using CPI-U data to derive the CPI-W.

experimental.<sup>2</sup> It represents the types of expenditures made by about 21 percent of the U.S. population.

- **Chained CPI-U:** The Chained CPI for All Urban Consumers. It was first published in 2002 to address methodological concerns about more fully capturing consumers' ability to buy different goods and services to adapt to changing prices.<sup>3</sup> It represents the types of expenditures made by about 93 percent of the U.S. population.

BLS regularly reviews and revises the methodologies for producing indexes to improve their accuracy. Several federal retirement programs use COLAs that are generally based on third quarter averages of the CPI-W. This includes Social Security (the largest of these programs), Military Retirement, Railroad Retirement Board pensions, the Federal Employees Retirement System, the Civil Service Retirement System, and Veterans Affairs pensions. Price indexing also occurs in other federal programs not exclusively focused on older Americans, such as Social Security Disability Insurance, Supplemental Security Income, and the Supplemental Nutrition Assistance Program.

In summary, we found the following:

- **Using an alternate index would likely result in changes to benefits and program costs that accumulate over time.** A switch to an alternate index for federal retirement programs' COLAs would likely create tradeoffs in regards to individual benefits and program costs.<sup>4</sup> An increase in benefits would also mean an increase in program costs, and a decrease in benefits would mean a decrease in costs. We estimate that a switch to the Chained CPI-U would lower benefits through small annual changes that accumulate over time, relative to using the CPI-W, whereas a switch to the CPI-E would increase benefits in a similar manner. For example, if COLAs had been based on the Chained CPI-U or CPI-E over the 2003–2033 period, our analysis shows that the first year's adjusted monthly benefit in 2004 would change by a few dollars or less, relative to using the CPI-W, but after 30 years we estimate that the monthly difference would be \$100 or more for a hypothetical beneficiary with earnings equal to the national average wage index.<sup>5</sup>
- **Changing to an alternate index would have the largest relative effect on those who receive benefits the longest and those with lower incomes.** Beneficiaries who claim

---

<sup>2</sup> As with the CPI-W, BLS uses CPI-U data to derive the CPI-E. However, BLS officials told us that unlike for the CPI-W population, BLS does not have data specific to the population of older Americans. As a result, in contrast to the CPI-W, BLS officials said they are unable to determine the extent to which CPI-U data reflect consumption patterns specific to older Americans—where they shop, what they purchase, and how much they pay.

<sup>3</sup> All four indexes to some extent reflect consumers' ability to adapt to changing prices. Specifically, all four indexes reflect consumers' ability to choose among closely-related goods and services as prices change. However, unlike the other three indexes, the Chained CPI-U further reflects consumers' ability to choose among all available goods and services as prices change.

<sup>4</sup> When defining program costs, we are referring to overall costs to federal retirement programs. For example, program costs include outlays that affect the solvency of the Social Security Trust Funds and outlays made by the Federal Employees Retirement System.

<sup>5</sup> These nominal dollar estimates are based on hypothetical calculations of COLAs using historical and assumed CPI data for a beneficiary who retired in 2003 at age 65 with earnings equal to the national average wage index. Income and benefit information is based on SSA's hypothetical retired workers. Using constant 2017 dollars, the difference in monthly benefit in 2033 would be \$70 or more relative to the CPI-W.

benefits over many years and those with lower incomes would most strongly experience the effects of using an alternate index for federal retirement programs' COLAs. This is in part because changes to COLAs accumulate over time and because lower-income beneficiaries rely more heavily on federal retirement programs, such as Social Security. For example, after 30 years of Social Security COLA adjustments using an alternate index, we estimate that the total retirement income for a low-income household would decrease by about 6 percent using the Chained CPI-U or increase by about 4 percent using the CPI-E, relative to the current index.<sup>6</sup> In contrast, we estimate that this same change in COLA would affect the total retirement income of a high-income household by only about a 1 percent decrease using the Chained CPI-U or about a 1 percent increase using the CPI-E, relative to the CPI-W.<sup>7</sup>

- **Implementing an alternate index could pose issues regarding timeliness of data and cost.** The Chained CPI-U data are preliminary and can be subject to significant revisions up to 1 year after they are initially produced. This may require agencies to determine how or whether to address these data lags. BLS considers the CPI-E an experimental index. According to 2017 estimates from BLS, it could cost about \$5 million per year over several years to research it and, if BLS finds that the current CPI-E methodology is not sufficient, up to an additional \$110 million per year thereafter to produce an official CPI-E. In addition to timeliness and cost issues, switching to an alternate index would require explanations to beneficiaries. Also, SSA officials indicated that any change to how SSA computes COLAs would require a legislative change.<sup>8</sup>
- **A change in certain indexes would affect other federal programs.** While this report focused on federal retirement programs, the information is relevant for other federal programs as well. For example, by law the COLA for Social Security's retirement program applies to some other programs too. The COLA for Social Security retirement benefits is the same as the COLA for Social Security disability benefits, and changes to that COLA trigger changes to the COLA for Supplemental Security Income, Railroad Retirement Board pensions, and Veterans Affairs pensions. The same issues could present themselves if other federal programs changed the CPI used for various program aspects, such as income eligibility levels or benefit amount.

---

<sup>6</sup> Percentage change is relative to what the change could have been using the CPI-W. Using historical CPI data from BLS and future inflation assumptions by the SSA, we estimated hypothetical Social Security COLAs that could have been used if the COLA were based on an alternate CPI over the 2003–2033 period. The future inflation information reflects the intermediate assumptions in the 2018 Trustees Report. Retirement income information is from the nationally representative 2016 Survey of Consumer Finances, the most recent available. We use household age 65 and older as a proxy for retirement. Low-income refers to those in the lowest income quintile, and high-income refers to those in the highest income quintile. Total retirement income includes Social Security, defined benefit pension annuities, retirement savings withdrawals, and other sources.

<sup>7</sup> The economy has been in a period of relatively low inflation for the last few decades. If that were to change it is unclear how the hypothetical COLA calculations would be affected.

<sup>8</sup> Statutes authorizing selected federal programs refer to the CPI generally, but do not specify which CPI must be used to calculate COLAs, and some link to Social Security's COLA. SSA officials told us that changes in the CPI used for indexation in other instances have historically been the result of statutory changes. Any changes to the CPI for Social Security would need to be reflected in SSA's regulations, which refer specifically to the CPI-W.

## Agency Comments

We provided a draft of this report to the Department of Labor and the Social Security Administration for review and comment. In its comments, reproduced in enclosure III, the Social Security Administration generally agreed with our findings. The Department of Labor and the Social Security Administration also provided technical comments, which we incorporated as appropriate. In its technical comments, the Department of Labor noted that BLS currently has plans to re-evaluate the methods used to calculate the CPI-W and CPI-E and to identify ways to improve measurement within the current budget.

-----

We are sending copies of this report to the appropriate congressional committees, the Secretary of Labor, Secretary of the Treasury, and the Acting Commissioner of Social Security, and other interested parties. In addition, the report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-7215 or [jeszeckc@gao.gov](mailto:jeszeckc@gao.gov). Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report were Michael Collins (Assistant Director), Laura Hoffrey (Analyst-In-Charge), Michael Duane, Emilio Fonseca, and Tom Moscovitch. Other contributors to this report include Deborah Bland, Alicia Puente Cackley, Sheranda Campbell, Susan Irving, Michael Kendix, Sheila R. McCoy, Kathleen McQueeney, Andrew Nelson, Mimi Nguyen, Jessica Orr, Oliver Richard, Joseph Silvestri, Frank Todisco, Walter Vance, and Adam Wendel.



Charles A. Jeszeck  
Director, Education, Workforce, and Income Security Issues

Enclosures – 3



---

# **Retirement Security: Alternate Price Indexes for Cost-of-Living Adjustments Present Tradeoffs**

---

## **Briefing for The Honorable Tim Walberg House of Representatives**

---

**THIS PRELIMINARY WORK OF GAO IS SUBJECT TO REVISION AND SHOULD NOT BE REPRODUCED OR DISTRIBUTED. SOME GRAPHICS MAY BE ENTITLED TO COPYRIGHT.**

---

---

# Overview

- Introduction
- Objective, Scope, and Methodology
- Summary
- Background
- Observations



---

# Introduction: Consumer Price Indexes Are Used for Cost-of-Living Adjustments

- Federal benefits programs often include cost-of-living adjustments (COLA) to ensure that benefits keep pace with inflation and to maintain the purchasing power of those benefits.
- Several federal retirement programs adjust benefits using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), in whole or in part, after initial benefits have been set. These benefits include military pensions, federal employee pensions, and Social Security, one of the largest federal programs that pays benefits to more than 60 million older Americans and workers with disabilities.
- The CPI-W is constructed to reflect price increases for urban wage earners and clerical workers, based on the goods and services typically purchased by this population.

## Introduction: CPI-W

- Some economists have argued that the CPI-W may overestimate the true cost of living in general because individuals can partially offset the effect of relative price increases by purchasing different goods and services.
- Other economists have argued that the CPI-W may underestimate the true cost of living for retirees by misrepresenting the goods and services that older Americans consume.
  - Specifically, according to the Bureau of Labor Statistics, older Americans devote a much larger share of their total budgets to medical care and shelter<sup>1</sup> than other groups, and the costs of these items have generally increased more rapidly than for most other goods and services.

<sup>1</sup> Some debate exists over the methods used to calculate owner-occupied housing costs for consumer price indexes. In the U.S., the “owner’s equivalent rent” is used to capture what a homeowner would pay in rent for a similar property.



# Objective, Scope, and Methodology

- You asked us to describe the effects of various price indexes on older Americans' retirement security.
- This briefing provides information on the benefits and disadvantages of alternate price indexes for measuring the cost of living for older Americans.
- To do this we:
  - Interviewed agency officials from the Congressional Budget Office, Congressional Research Service, Department of Labor, Department of the Treasury, and Social Security Administration (SSA).
  - Reviewed federal publications, which we identified through interviews with agency officials and by reviewing agency websites.
  - Used third quarter historical and assumed future consumer price index (CPI) data to calculate Social Security COLAs and retirement benefits that would have been received had different CPIs been used instead of the CPI-W over a 30 year period (2003 through 2033).<sup>1</sup>
    - Assumed future CPI data came from SSA and were based on the intermediate assumptions in the 2018 Trustees Report.
  - We assessed the reliability of the data by reviewing relevant documentation and internal controls, interviewing agency officials, and comparing our calculations to published data. We found the data we used to be reliable for our purposes.

<sup>1</sup> While other inflation indexes exist, such as wage indexes, we examined four CPIs produced by the Bureau of Labor Statistics, including the CPI-W.

## Summary of Observations

- Alternate price indexes for calculating federal retirement program COLAs would likely present tradeoffs in benefit levels, program costs, and implementation.
  - Using an alternate index would likely result in changes to benefits and program costs that accumulate over time.
  - Changing to an alternate index would have the largest relative effect on those who receive benefits the longest and those with lower incomes.
  - Implementing an alternate index could pose issues regarding timeliness of data and cost.
  - There would be effects on other federal programs.



---

## Background: The Department of Labor's Bureau of Labor Statistics (BLS) Produces Four CPIs

- **The CPI for Urban Wage Earners and Clerical Workers (CPI-W)** was first published in 1921 to measure the average cost of living for Americans who lived in urban areas and were considered wage earners or clerical workers. For a simplified depiction of the process to create a CPI, see figure 1. When SSA began indexing benefits in 1975, the CPI-W was the only national CPI that BLS produced. The CPI-W represents the types of expenditures made by about 29 percent of the U.S. population.
- **The CPI for All Urban Consumers (CPI-U)** was first published in 1978 and CPI-U data linked to the CPI-W go back to 1913. On average the CPI-U tracks closely to the CPI-W but represents a larger population that includes retired individuals. The CPI-U represents the types of expenditures made by about 93 percent of the U.S. population.

## Background: BLS Produces Four CPIs (cont'd)

- **The CPI for the Elderly (CPI-E)** was created in 1988 to address spending patterns of those age 62 and older by shifting the weights for certain expenditures.<sup>1</sup> For example, medical care and shelter account for about 12 and 37 percent of the expenditure weights in the CPI-E, compared to 8 and 31 percent in the CPI-W. BLS considers the CPI-E an experimental index. The CPI-E represents the types of expenditures made by about 21 percent of the U.S. population.
- **The Chained CPI for All Urban Consumers (Chained CPI-U)** was first published in 2002 to address methodological concerns about more fully capturing consumers' ability to buy different goods and services to adapt to changing prices. For example, if the price of steak were to rise more than the price of chicken, the Chained CPI-U takes into account consumers' ability to switch from buying steak to buying chicken instead.<sup>2</sup> The Chained CPI-U represents the types of expenditures made by about 93 percent of the U.S. population.

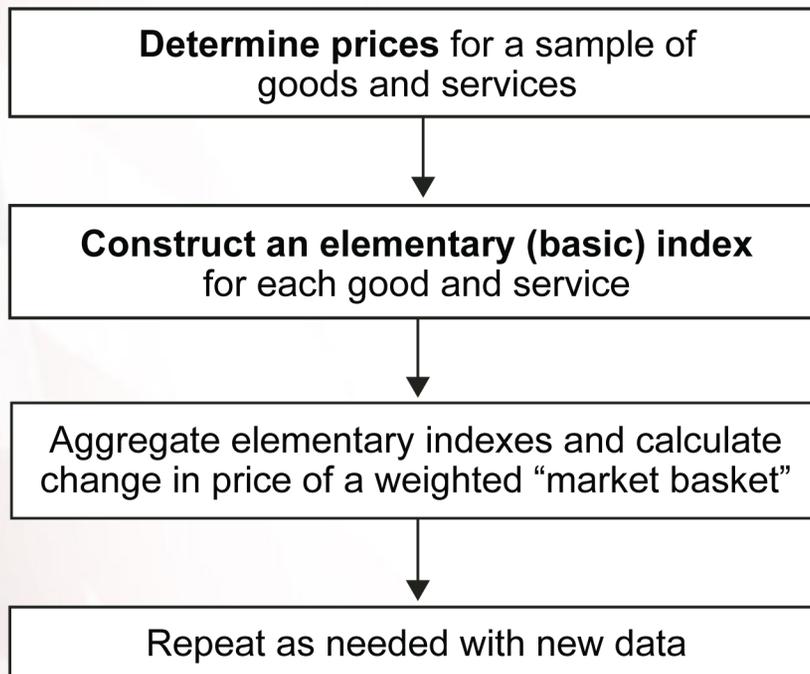
<sup>1</sup> BLS created the CPI-E pursuant to a provision in the Older Americans Act Amendments of 1987. See Pub. L. No. 100-175, § 191, 101 Stat. 926, 967.

<sup>2</sup> All four indexes to some extent reflect consumers' ability to adapt to changing prices. Specifically, all four indexes reflect consumers' ability to choose among closely-related goods and services as prices change. However, unlike the other three indexes, the Chained CPI-U further reflects consumers' ability to choose among all available goods and services as prices change.

# Figure 1: Simplified Depiction of the Process to Create a Consumer Price Index

## *How to construct a consumer price index*

### Monthly



### Periodically

- Select a sample of geographic areas
- Choose a sample of households
- Determine their expenditure patterns on goods and services
- Determine weights to apply to elementary indexes to create a "market basket" that represents goods and services typically purchased by the population in the sample

Source: GAO analysis of information from the Department of Labor. | GAO-19-218R



# Background: Major Retirement Programs That Use Price Indexing

- Several federal retirement programs use COLAs that are generally based on third quarter averages from the CPI-W to adjust benefits:
  - Military Retirement; Railroad Retirement Board pensions; the Federal Employees Retirement System; the Civil Service Retirement System; Veterans Affairs pensions; and one of the largest federal programs that covers older Americans and workers with disabilities, Social Security.<sup>1</sup>
- CPI-W is also used to increase regular and catch-up contribution limits for retirement savings plans such as:
  - 401(k), 403(b), 457, and the federal Thrift Savings Plan.

<sup>1</sup> The Federal Employees Retirement System sets the COLA to be equal to or less than the change in the CPI-W, and one part of Railroad Retirement Board pensions sets the COLA at 32.5 percent of the Social Security COLA. The Pension Benefit Guaranty Corporation uses wage indexing to increase premiums and to adjust maximum benefits.



---

# Background: Other Federal Programs That Use Price Indexing

- Price indexing is also used to adjust benefit amounts for other programs not exclusively focused on older Americans (e.g., Supplemental Security Income, Social Security Disability Insurance, Federal Employees' Compensation Act, and the Supplemental Nutrition Assistance Program).
- The tax code provides for indexation in certain instances, such as for income tax brackets and standard deductions.
- Price indexing is also used for the federal poverty level and to measure income eligibility amounts for some federal programs.



## Benefits: Using an Alternate Index Would Likely Result in Changes to Benefits That Accumulate Over Time

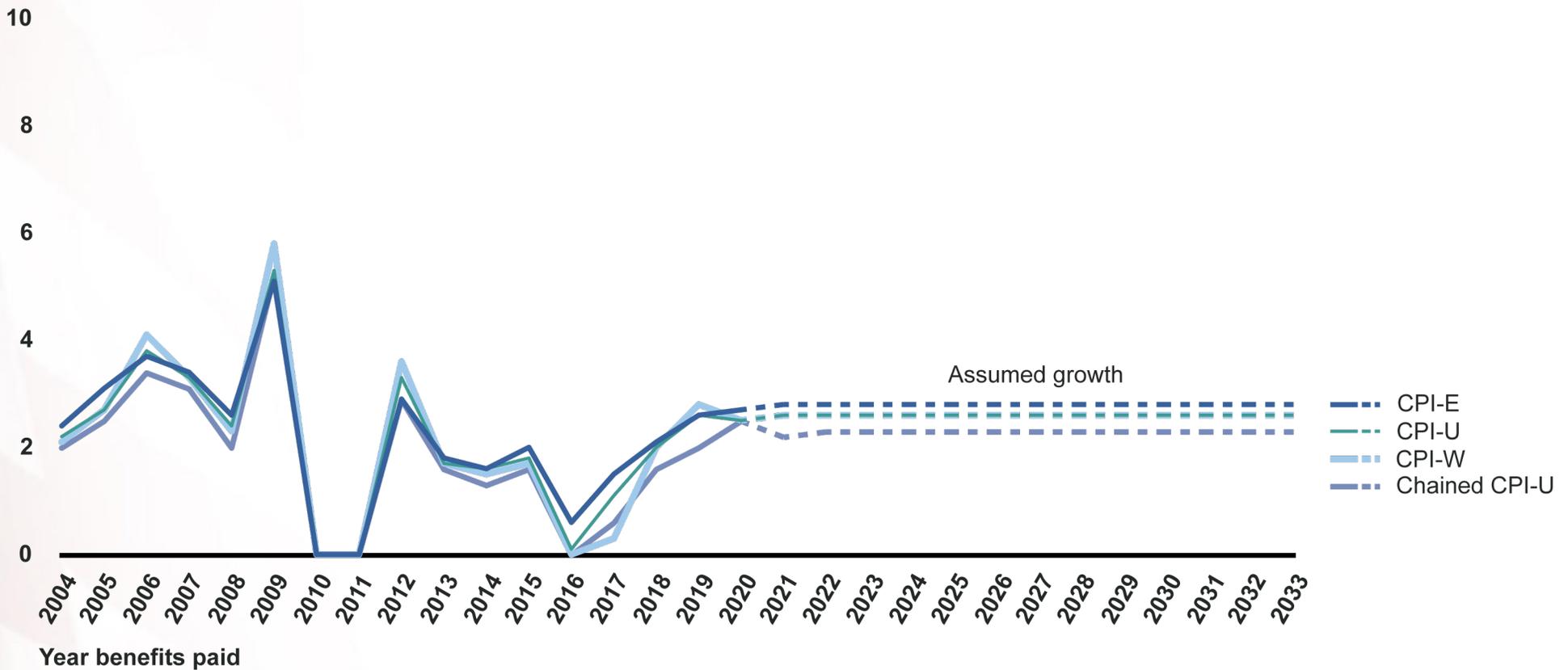
- Based on our calculation of hypothetical COLAs over a 30 year period (2003–2033), using historical and assumed future inflation data, switching to an alternate index would create relatively small annual benefit changes that compound over time.<sup>1</sup> For example:
  - We estimate that using the Chained CPI-U would decrease the COLA by an average of about a quarter of 1 percent per year, relative to the CPI-W; however, this decrease would accumulate to more than 7 percent by 2033.
  - We estimate that using the CPI-E would increase the COLA by an average of about 1/7 of 1 percent per year, relative to the CPI-W. By the end of the 30 year time span, that increase would accumulate to more than 4 percent.
- The CPI-U has historically tracked closely to the CPI-W and SSA expects this trend to continue. Based on that, we estimate that a switch to the CPI-U would show little change from the CPI-W (see figs. 2 and 3).

<sup>1</sup> We analyzed historical CPI data and used SSA assumptions about future CPI growth based on the intermediate assumptions in the 2018 Trustees Report.



# Figure 2: Annual Differences in COLAs Using Alternate CPIs Are Relatively Small

Annual percent change in 3rd quarter average

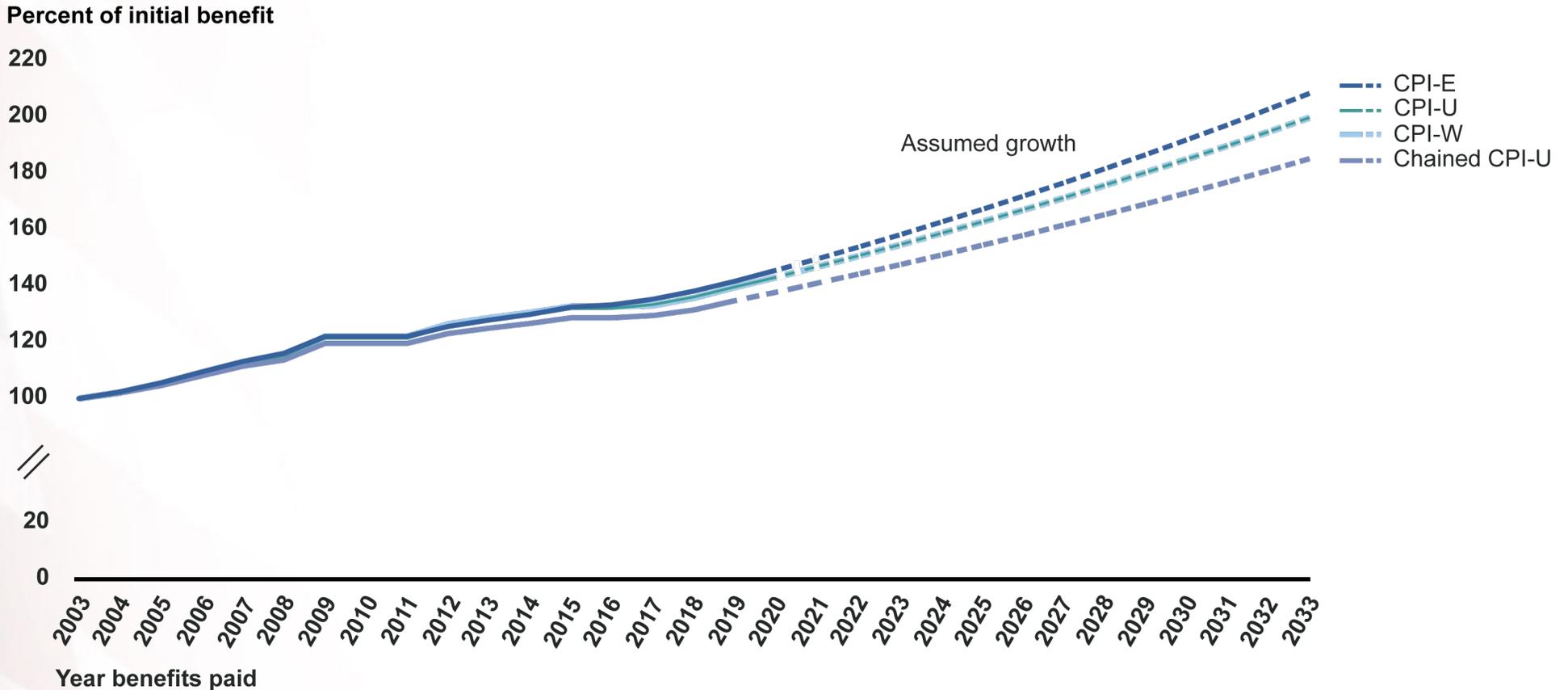


Source: GAO analysis of Social Security Administration and Bureau of Labor Statistics information. | GAO-19-218R

Note: assumed growth data are based on the intermediate assumptions in the 2018 Trustees Report. All historical CPI data are based on final data. For some years, separate lines do not appear for CPI-W and CPI-U because the data points are the same.



# Figure 3: Differences in COLAs Using Alternate CPIs Accumulate Over Time



Source: GAO analysis of Social Security Administration and Bureau of Labor Statistics information. | GAO-19-218R

Note: assumed growth data are based on the intermediate assumptions in the 2018 Trustees Report. All historical CPI data are based on final data. For some years, separate lines do not appear for CPI-W and CPI-U because the data points are the same.



## Benefits: Examples of Effect on Individual Benefits for Hypothetical COLAs over Period 2003–2033<sup>1</sup>

- **Example 1:** Under the Chained CPI-U, for a hypothetical individual who retired in 2003 at age 65 with earnings equal to the national average wage index, we estimate that the 2004 annual adjusted benefit would have decreased by about \$12 (about \$1 a month), compared to if the CPI-W had been used to index benefits.
  - But over 30 years (2033) the differences would compound so that the final year's annual benefit would decrease by about \$2,000 (more than \$165 a month), relative to the CPI-W.
- **Example 2:** Under the CPI-E, we estimate that the same hypothetical retiree's 2004 annual adjusted benefit would have increased by about \$36 (about \$3 a month), compared to if the CPI-W had been used.
  - But over 30 years, that amount would grow so that the final year's annual benefit would increase by about \$1,300 (more than \$100 a month), relative to the CPI-W.

<sup>1</sup> Hypothetical individual income and benefit amounts are based on SSA's hypothetical retired workers with scaled earnings equal to the national average wage index. In 2003, the national average wage index was \$33,256 per year and the hypothetical annual benefit amount was \$13,896. Dollar amounts above are nominal, though using constant 2017 dollars the annual benefit in 2033 would be about \$1,300 less (about \$100 per month) using the Chained CPI-U and \$840 more (about \$70 per month) using the CPI-E.

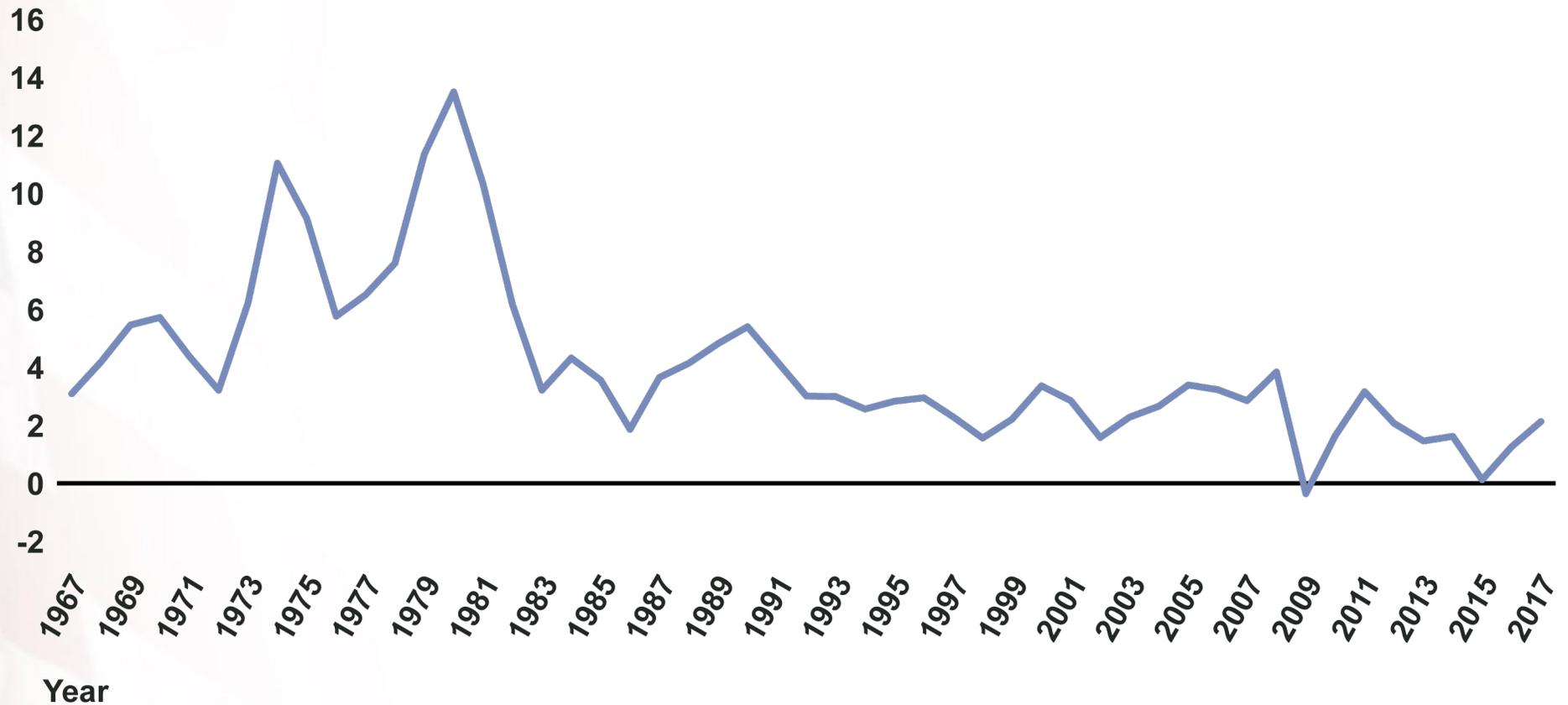
## Benefits: Low Inflation Adds Uncertainty to Future Effects

- The U.S. experienced high inflation rates in the 1970s and early 1980s (see fig. 4).
  - Since then, the U.S. has experienced lower inflation rates (often less than 3 percent), which are reflected in our assumptions of the alternate indexes moving forward.
  - However, the Chained CPI-U was first published in 2002 and the CPI-E in 1988, and they have only been documented in a relatively low inflation environment.
  - It is uncertain how high inflation would affect our hypothetical COLA calculations.



# Figure 4: Changes in Inflation for the U.S. 1967–2017

Percent change from prior year



Source: GAO analysis of Consumer Price Index for All Urban Consumers (CPI-U). | GAO-19-218R



## Costs: Tradeoffs between Individual Benefits and Program Cost

- Absent other changes, an increase in individual benefits would lead to an increase in program costs (such as projected using the CPI-E). Similarly, lowering benefits would lead to a decrease in program costs (such as projected using the Chained CPI-U).<sup>1</sup>
- Like benefits, the effect on annual program outlays may be relatively modest in the first years, but they would accumulate over time.

<sup>1</sup> When defining program costs, we are referring to overall costs to federal retirement programs. For example, program costs include outlays that affect the solvency of the Social Security Trust Funds, and outlays made by the Federal Employees Retirement System. Moreover, while the CPI-E is not always higher and the Chained CPI-U is not always lower than the CPI-W, this has been the overall trend, and this trend is expected to continue in the future, according to information by the SSA Office of the Chief Actuary.



# Costs: Alternate Indexes Projected to Affect Social Security's Finances

- Using an alternate index for COLA would have less absolute effect on Social Security's long-range finances than many of the other specific policy options that SSA and the Congressional Budget Office (CBO) evaluated.<sup>1</sup> For example, both SSA and CBO project that switching to the Chained CPI-U or CPI-E would affect program finances less than the vast majority of other recent policy options they examined to:
  - change the taxation of earnings, and
  - raise the retirement age.

<sup>1</sup> See Social Security Administration, Summary of Provisions That Would Change the Social Security Program (September 13, 2018) and Congressional Budget Office, Social Security Policy Options, 2015 (Washington, D.C.: December 2015). To put the effects of using the CPI-E or Chained CPI-U into context, we compared these effects to the effects of all policy options evaluated in the aforementioned publications. We further compared these effects to the effects of some commonly discussed categories of policy options, namely changing the taxation of earnings and raising the retirement age. Using the Chained CPI-U would have less of an effect than 27 of 35 options SSA examined and 9 of 10 options CBO examined to change the taxation of earnings. For the CPI-E the figures were 28 of 35 and 10 of 10, respectively. Regarding raising the retirement age, using the Chained CPI-U would have less of an effect than 10 of 15 options SSA examined and 3 of 4 options CBO examined. For the CPI-E the figures were 13 of 15 and 4 of 4, respectively. The degree of the effect depends on the scale of the specific policy option, such as how much the retirement age would be raised.



# Costs: Alternate Indexes Projected to Affect Social Security's Finances (cont'd)<sup>1</sup>

- Social Security is a large program that is currently on a fiscally unsustainable path, and changing the CPI used to calculate COLA would affect program finances to differing degrees based on the option selected.
- According to SSA projections, switching to the CPI-E would worsen Social Security's finances. Switching to the CPI-E in 2020 for both retirement and disability benefits is estimated to decrease Social Security's long-range actuarial balance by 0.39 percent of taxable payroll, which is estimated to increase the shortfall in the balance by 14 percent. However, it is not projected to change the calendar year in which Social Security's Old-Age, Survivors, and Disability Insurance Trust Funds will be unable to pay full benefits.
- In contrast, SSA projects that switching to the Chained CPI-U would improve Social Security's finances. A switch to the Chained CPI-U in 2019 for retirement benefits only is estimated to increase Social Security's long-range actuarial balance by 0.49 percent of taxable payroll, which is estimated to reduce the shortfall by 17 percent. This would extend the projected date in which the combined Trust Funds will be unable to pay full benefits by about 2 years (to 2036).

<sup>1</sup> Based on 2018 estimates by the SSA Office of the Chief Actuary. The effect on the long-range actuarial balance is relative to the current payroll tax rate of 12.4 percent of taxable payroll. Comparisons are based on the closest available policy options that SSA examined to change to the CPI-E or Chained CPI-U. The Social Security Trust Funds are distinct legal entities, and on a hypothetical combined basis they are projected to be unable to pay full benefits in 2034. Note that changing to the CPI-E does not change the year in which the combined Trust Funds are unable to pay full benefits, but it would still affect program finances. SSA assumes that the CPI-E will increase by 0.2 percentage points more than the CPI-W and that the Chained CPI-U will increase by 0.3 percentage points less than the CPI-W.

## Equity: Alternate Indexes Would Have Larger Effect on Those Who Receive Benefits Longest

- Because the changes to COLA accumulate over time, effects of using an alternate index would be more pronounced for those who receive benefits over the longest periods. This includes:
  - beneficiaries of retirement programs who live longer, such as those with a college education and women; and
  - those who start receiving benefits earlier than others, such as recipients of disability and survivor's benefits.
    - For example, early claimers of Social Security retirement benefits are more likely to be widowed, have worked in physically-demanding blue collar jobs, or be veterans, as we reported in 2014.<sup>1</sup>

<sup>1</sup> GAO, Retirement Security: Challenges for Those Claiming Social Security Benefits Early and New Health Coverage Options, GAO-14-311 (Washington, D.C.: April 23, 2014).



# Equity: Alternate Indexes Would Have Larger Effect on Lower-Income Beneficiaries

- Lower-income beneficiaries tend to be more sensitive to changes in income, so changes in COLAs would affect them more so than others.
  - For example, Social Security benefits make up a larger share of their retirement income, on average.
    - Among households age 65 and older, Social Security makes up about 81 percent of the retirement income for those in the lowest income quintile. For those in the highest income quintile, Social Security makes up about 15 percent of their retirement income.<sup>1</sup>
- In 2015, SSA projected that changing Social Security's COLA to be based on the Chained CPI-U would move about 456,000 people into poverty by 2050, and that changing it to be based on the CPI-E would move 238,000 people out of poverty by 2050.<sup>2</sup>

<sup>1</sup> We analyzed 2016 Survey of Consumer Finances data using age as a proxy for retirement.

<sup>2</sup> SSA projections are based on the microsimulation "Modeling Income in the Near Term 7" and incorporate intermediate assumptions from the 2012 Trustees Report. For context, in 2017 there were about 45.5 million recipients of Social Security retirement benefits and the Census Bureau estimated that 39.7 million Americans lived in poverty.



# Equity: Effect of Alternate CPIs over 30 Years on Households with High and Low Incomes

An illustrative example:<sup>1</sup>

- As described previously, if the Chained CPI-U had been used to calculate COLAs for retirees starting in 2003, we estimate that aggregate Social Security benefits would have decreased in 2033 relative to the CPI-W, based on our analysis using historical and assumed future inflation.
  - For a low-income household, this represents about a 6 percent decrease in retirement income. For a high-income household, this represents about a 1 percent decrease in retirement income.
- If the CPI-E had been used, we estimate that Social Security benefits would have increased in 2033 relative to the CPI-W, based on our analysis using historical and assumed future inflation.
  - For a low-income household, this represents about a 4 percent increase in retirement income. For a high-income household, this represents about a 1 percent increase in retirement income.

<sup>1</sup> Using historical CPI data from BLS and future inflation assumptions by SSA, we estimated hypothetical Social Security COLAs that could have been used if the COLA were based on an alternate CPI over the 2003–2033 period. The inflation assumptions reflect the intermediate assumptions in the 2018 Trustees Report. Income amount and composition information is from the nationally representative 2016 Survey of Consumer Finances, the most recent available. We use household age 65 and older as a proxy for retirement. As discussed in the prior slide, Social Security benefits make up 81 percent of retirement income for those in the lowest income quintile and 15 percent for those in the highest income quintile.

## Implementation: Alternate Indexes for Calculating COLAs Would Likely Present Tradeoffs

- If an alternate CPI were adopted, the following steps could potentially be needed in addition to a potential legislative change:

Potential Steps Needed:	CPI-U	Chained CPI-U	CPI-E
Explain change to beneficiaries	X	X	X
Consider lack of timely data		X	
Research and develop new official index			X

Source: GAO analysis of agency information and interviews with agency officials.



## Implementation: Potential Legislative and Regulatory Changes to Switch to An Alternate Index

- Statutes authorizing selected federal programs refer to the CPI generally, but do not specify which CPI must be used to calculate COLAs, and some link to Social Security's COLA.
- However, SSA officials told us that changes in CPI have historically been the result of legislation.
  - For example, the December 2017 tax law changed which CPI is used to adjust taxable income brackets.<sup>1</sup>
- SSA officials also indicated that any changes to how it computes COLAs would require a legislative change.
- Any changes to the CPI for Social Security would need to be reflected in SSA's regulations, which refer specifically to the CPI-W.

<sup>1</sup> Prior to this law, CPI-U data were used. Initial Chained CPI-U data are now used. See later slides for further discussion of initial and final Chained CPI-U.

## **Implementation: Switching Indexes Would Necessitate Communication to Beneficiaries**

- Agencies would need to explain the change and why it is being made.
- This would likely come at a cost, though the amount is unknown.
- Changes could be more difficult to explain if they involve complex methodological issues or a decrease in benefits.



## Implementation: Issues with Timeliness of Chained CPI-U Data

- A switch to the Chained CPI-U may require SSA and other agencies to determine how or whether to address data lags of up to 1 year.
- BLS produces the Chained CPI-U in stages:
  - Initial Chained CPI-U (monthly, subject to revision)
  - Interim revised data (quarterly, subject to revision)
  - Final Chained CPI-U (10–12 months after initial data)
- According to BLS, this is necessary because expenditure data used to calculate weights become available after a significant lag, so as to allow the Chained CPI-U to reflect consumers' ability to buy different goods and services in response to price changes. Experts generally agree that including that type of substitution makes the Chained CPI-U more reflective of consumer behavior, according to Congressional Budget Office and Congressional Research Service documents.
- This data lag is not an issue for other CPIs because they do not require current period expenditure weights and are final once released.



# Implementation: Some Options to Address Timeliness of Chained CPI-U

- Wait until final data are released to calculate COLA.
  - Pro: Data would be final and most accurate.
  - Con: COLA would be based on price changes from 1 to 2 years ago.
- Use cohort-specific COLAs that rely on initial, interim, and final data.<sup>1</sup>
  - Pro: Unusual errors in the initial index would be corrected in a subsequent year using this method, according to the Congressional Budget Office.
  - Con: It could be complicated to administer different COLAs for different cohorts; if the difference between initial and final data is not zero on average, this would lead to permanent change in benefits.
- Use initial data without later adjusting them.
  - Pro: No delay.
  - Con: Initial data are subject to larger measurement error compared to the final data, and errors would lead to permanent differentials in benefits (see fig. 5).

<sup>1</sup> This method would require calculating a separate COLA each year for the group of people that claim for the first time that year. See Congressional Budget Office, Testimony before the Subcommittee on Social Security, Committee on Ways and Means, U.S. House of Representatives: Using the Chained CPI to Index Social Security, Other Federal Programs, and the Tax Code for Inflation (Washington, D.C.: April 18, 2013).



---

## **Figure 5: Differences between Initial and Final Chained CPI-U Can Be Substantial**

---

## Implementation: Additional Information on the Difference between Initial and Final Chained CPI-U

- As we discussed earlier, even small annual changes to COLA accumulate over time and could have significant effects on an individual's benefits.
- In 2015, BLS changed the methodology to calculate the initial Chained CPI-U.<sup>1</sup>
  - Agency officials said this change decreased the difference between initial and final data.
- BLS has also made improvements to the timeliness of the final Chained CPI-U data, as prior to 2015 it took up to 2 years for the final Chained CPI-U to be available.

---

<sup>1</sup> J. Klick, "Improving Initial Estimates of the Chained Consumer Price Index," (Washington, D.C.: February 2018).

, Bureau of Labor Statistics

## Implementation: Making the CPI-E Official Could Be Costly

- BLS considers the CPI-E an experimental index and does not consider it as accurate as the official indexes.
- BLS officials said they would need to conduct research to assess whether the current CPI-E methodology is sufficient and, if not, develop an official CPI-E.
- According to 2017 BLS estimates, it could cost about \$5 million annually over several years to research the issue.
  - If the official CPI-E required additional surveys, BLS said it could cost up to \$110 million per year thereafter.<sup>1</sup>
  - Other CPIs are based off of the same set of surveys, so they do not require this additional cost.

---

<sup>1</sup> These BLS estimates include an at least 80 percent increase in the number of households surveyed to produce the expenditure weights, and they also include additional price collection for items purchased by the elderly at outlets frequented by the elderly, among other things.

## Implementation: Other Considerations for the CPI-E

- If BLS determined the current methodology is sufficient, BLS could change the status of the CPI-E from an experimental index to an official index without additional costs for more surveys.
- None of the agency officials we spoke with were aware of retirement programs (federal or otherwise) that indexed benefits to the CPI-E.
- However, several legislative proposals have been introduced to index various federal retirement benefits to the CPI-E.



# Effects on Other Federal Programs: Ripple Effects

- Using an alternate CPI for federal retirement programs would have ripple effects for other federal programs.
- For example, by law, the COLA for Social Security retirement benefits is the same as the COLA for Social Security Disability Insurance (DI) benefits. Changes to that COLA would trigger changes to Supplemental Security Income (SSI) benefits.<sup>1</sup>
  - DI and SSI beneficiaries have different characteristics than Social Security retirement beneficiaries. It is uncertain whether using a different CPI would accurately represent the market basket of goods and services consumed by beneficiaries in all of these programs.
  - DI and SSI beneficiaries tend to be younger, so they could experience compounded effects for a longer period of benefit receipt.

<sup>1</sup> Further, a change in the Social Security COLA triggers a change in Railroad Retirement Board pensions and Veterans Affairs pensions.



---

## Effects on Other Federal Programs: Cost Shifting

---

- A “hold-harmless” provision prevents Medicare Part B premiums from increasing by more than the Social Security COLA for some participants in both Medicare Part B and Social Security.
  - Thus, a lower COLA could lead to smaller premium increases for these participants.
  - These costs may be borne by:
    - other participants not subject to this provision, or
    - the Medicaid programs that cover their premiums, in the case of some low-income participants.



---

## Effects on Other Federal Programs: Other Effects

- While this work focused on federal retirement programs, the same dynamics would be at play for other programs that use COLAs based on price indexes.
  - If income eligibility for the Supplemental Nutrition Assistance Program (SNAP) were indexed to the Chained CPI-U, the number of program participants and costs would have likely decreased. In contrast, using the CPI-E would have likely resulted in an increase. In fiscal year 2017, about 42 million people received SNAP benefits.
  - There are cases in which the effect on program cost would be reversed, such as with refundable tax credits or cost-sharing with non-federal parties. For example, if Medicare participants' cost-sharing amounts were indexed to the Chained CPI-U, program costs would likely increase, whereas under the CPI-E they would likely decrease.



---

## GAO on the Web

Connect with GAO on [LinkedIn](#), [Facebook](#), [Flickr](#), [Twitter](#), [YouTube](#) and our Web site: <https://www.gao.gov/>  
Subscribe to our [RSS Feeds](#) or [E-mail Updates](#). Listen to our [Podcasts](#) and read [The Watchblog](#)

## Congressional Relations

Orice Williams Brown, Managing Director, [WilliamsO@gao.gov](mailto:WilliamsO@gao.gov)  
(202) 512-4400, U.S. Government Accountability Office  
441 G Street, NW, Room 7125, Washington, DC 20548

## Public Affairs

Chuck Young, Managing Director, [youngc1@gao.gov](mailto:youngc1@gao.gov)  
(202) 512-4800, U.S. Government Accountability Office  
441 G Street, NW, Room 7149, Washington, DC 20548

## Strategic Planning and External Liaison

James-Christian Blockwood, Managing Director, [spel@gao.gov](mailto:spel@gao.gov)  
(202) 512-4707, U.S. Government Accountability Office,  
441 G Street NW, Room 7814, Washington, DC 20548

## Copyright

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

## Enclosure II: Objective, Scope, and Methodology

In this report, we examined the benefits and disadvantages of alternate price indexes for measuring the cost of living for older Americans. To conduct this work, we interviewed agency officials and reviewed relevant federal publications, which we identified by interviewing agency officials and searching agency websites. Relevant agencies were the Social Security Administration (SSA), Department of Labor, Department of the Treasury, Congressional Budget Office, and Congressional Research Service.

Using historical and assumed future consumer price index (CPI) data for hypothetical beneficiaries, we calculated Social Security cost-of-living adjustments (COLA) that could have been used if the COLA were based on various CPIs over the 2003–2033 period. To calculate these COLAs, we analyzed CPI data from the Department of Labor’s Bureau of Labor Statistics (BLS) as well as other information from SSA. We calculated COLAs based on the third quarter average of the CPI for Urban Wage Earners and Clerical Workers (CPI-W, on which Social Security COLAs are currently based) as well as three alternate CPIs: CPI for All Urban Consumers (CPI-U), Chained CPI for All Urban Consumers (Chained CPI-U, both initial and final data), and the CPI for the Elderly (CPI-E).<sup>1</sup> To analyze the effect of using alternate CPIs over time, we assumed the hypothetical beneficiaries retired in 2003 and received adjusted benefits for 30 years.<sup>2</sup> We used the most recent historical CPI data that were available for all indexes.<sup>3</sup> For future CPI data, we used inflation information from SSA’s Office of the Chief Actuary that was based on the intermediate assumptions from the 2018 Trustees Report.<sup>4</sup>

To calculate hypothetical benefit amounts based on these alternate COLAs, we used information from SSA’s Office of the Chief Actuary on hypothetical benefit and earnings amounts. Specifically, we selected hypothetical beneficiary characteristics based on SSA’s hypothetical retired workers with earnings equal to the national average wage index. These workers were assumed to have scaled-earnings patterns, which are earnings patterns derived from the earnings experienced by actual workers covered by Social Security. For example, for a hypothetical worker retiring in 2003, the national average wage index was \$33,256. We calculated hypothetical benefits for workers retiring at age 65, which is the full retirement age for that birth cohort.

---

<sup>1</sup> Chained CPI-U data are produced in stages: the initial data are produced monthly, updates are produced quarterly, and the final data are published as the fourth quarterly revision, available up to a year after initial data are produced. For example, the most recent final Chained CPI-U data available in October 2018 were from September 2017.

<sup>2</sup> We do not presume that 30 years is a typical length of retirement; rather we wanted to examine the cumulative effects that could have occurred over time.

<sup>3</sup> The most recent final Chained CPI-U data were from 2017, and for all other indexes the most recent data were from 2018.

<sup>4</sup> *The 2018 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (Washington, D.C.: June 5, 2018). The Trustees Report describes assumed future inflation for the CPI-W, and we confirmed the assumptions for other CPIs with the Office of the Chief Actuary. Specifically, the CPI-W and CPI-U are assumed to increase by 2.5 percent in 2019 (for benefits payable in 2020), and 2.6 percent in 2020 and later. When scoring legislative proposals to change the CPI, the Office of the Chief Actuary assumes that the CPI-E will increase by 0.2 percentage points more than the CPI-W in the future and that the Chained CPI-U will increase by 0.3 percentage points less than the CPI-W in the future. Because final Chained CPI-U data were not available for the third quarter of 2018, we based the 2018 data on the aforementioned assumed difference from the historical CPI-W.

We described benefit amounts in nominal rather than inflation-adjusted dollars, partly because the subject of this report is the effect of whichever inflation adjuster is used. However, to provide a fuller picture, we also calculated constant dollar amounts adjusted using the CPI-U. Consistent with other analyses in this report, we used historical CPI data and future inflation information from SSA's Office of the Chief Actuary that was based on the intermediate assumptions from the 2018 Trustees Report.

We also used data from the 2016 Survey of Consumer Finances (SCF) to understand the average share of total retirement income that Social Security benefits comprise. The SCF is a triennial, nationally representative household survey sponsored by the Board of Governors of the Federal Reserve System. The SCF captures detailed information about household income by source. It also captures information on the age of each household head, which it defines as a male within a mixed-sex couple or the older individual within a single-sex couple, for purposes of data organization. We used age 65 and older as a proxy for retirement, though we recognize that some members of this group may not be retired. As with all surveys based on self-reported data, SCF is subject to nonsampling error. It is also subject to sampling error since it is one of a large number of random samples that might have been drawn. Because of this, we express our confidence in the precision of the sample results as 95 percent confidence intervals. All percentage estimates in our report based on the SCF have 95 percent confidence intervals that are within 3 percentage points of the estimate itself.

The calculations for these hypothetical beneficiaries are illustrative and may not be representative of actual beneficiaries' experiences. Moreover, the calculations and assumptions reflect the recent relatively low-inflation environment, and results may be different in a high-inflation environment.<sup>5</sup> Further, BLS has modified its methodology over time and may continue to do so in the future. However, we believe these calculations illustrate what the potential effects might have been if an alternate CPI had been used. For the federal retirement programs within our scope, the COLAs are generally based on the third quarter CPI-W. While we created the hypothetical calculations for Social Security benefits, we believe that the overall trends would hold for other federal retirement programs as well.

Some SSA publications we reviewed used a microsimulation model, Modeling Income in the Near Term (MINT). SSA developed MINT with others to analyze how proposed changes to Social Security benefits could affect different groups of beneficiaries. This model includes calculations using numerous data sources, such as the Survey of Income and Program Participation and the Health and Retirement Study. The projections were built using economic assumptions, such as anticipated inflation, as well as demographic and programmatic assumptions from the 2012 Trustees Report. We reported on MINT projections through 2050 because SSA officials told us the effects of a change in index would be fully realized over this period. While MINT provides very rough estimates of future incomes, they may be useful for comparing future incomes across alternative policy scenarios and over time.

Further SSA publications we reviewed projected the effects of using the Chained CPI-U and the CPI-E to calculate Social Security's COLA, and there are differences in the parameters of these

---

<sup>5</sup> While the Chained CPI-U was first published in 2002, if we had chosen another timeframe prior to 2003 for other CPIs, our results could have been different. For example, over the 2003–2018 time period, the hypothetical COLA based on the CPI-E was on average 0.09 percentage points higher than the COLA based on the CPI-W. In the 15 years prior to 2003, the hypothetical COLA based on the CPI-E was on average 0.33 percentage points higher than the COLA based on the CPI-W.

policy options.<sup>6</sup> Specifically, the option to use the CPI-E would begin in December 2020 and apply to both recipients of disability and retirement benefits. In contrast, the option to use the Chained CPI-U would begin in December 2019 for recipients of retirement benefits, while disability recipients would only be affected when their benefit converts to retirement benefit at the full retirement age. We used these projections because, although there are differences, they were the closest available policy options that SSA examined to replace the CPI-W with the CPI-E or Chained CPI-U. While these differences do not affect the direction of the option's effect on Social Security's finances, they do affect the magnitude of that effect.

We assessed the reliability of the data we used by reviewing relevant documentation, interviewing knowledgeable agency officials, reviewing internal controls, and comparing our calculations to published data. We found the data to be reliable for our purposes.

---

<sup>6</sup> According to SSA officials, the policy options SSA examined are ones that have been proposed by policymakers and other interested parties, so it is not surprising that there are differences.

## Enclosure III: Comments from the Social Security Administration



**SOCIAL SECURITY**  
Office of the Commissioner

January 7, 2019

Mr. Charles Jeszeck  
Director, Education, Workforce, and Income Security Issues  
United States Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Jeszeck:

Thank you for the opportunity to review the draft report, "Retirement Security: Alternate Price Indexes for Cost-of-Living Adjustments Present Tradeoffs" (GAO-19-218R). As noted in the report, we currently rely on the Consumer Price Index for Urban Wage Earners and Clerical Workers to compute cost-of-living adjustments (COLA). Over the years, our Chief Actuary has scored various COLA computation options proposed by policymakers. Each option would have varying effects on Social Security program costs, individual benefit levels, and administrative costs, as acknowledged by the report. We also acknowledge that any change to how we compute COLAs would require a legislative change.

If you have any questions, please contact me at (410) 965-9704. Your staff may contact Trae Sommer, Acting Director of the Audit Liaison Staff, at (410) 965-9102.

Sincerely,

Stephanie Hall  
Acting Deputy Chief of Staff

## **Accessible Text for Enclosure III: Comments from the Social Security Administration**

January 7, 2019

Mr. Charles Jeszeck

Director, Education, Workforce, and Income Security Issues

United States Government Accountability Office

441 G Street, NW

Washington, DC 20548

Dear Mr. Jeszeck:

Thank you for the opportunity to review the draft report, "Retirement Security: Alternate Price Indexes for Cost-of-Living Adjustments Present Tradeoffs" (GAO-19-218R). As noted in the report, we currently rely on the Consumer Price Index for Urban Wage Earners and Clerical Workers to compute cost-of-living adjustments (COLA). Over the years, our Chief Actuary has scored various COLA computation options proposed by policymakers. Each option would have varying effects on Social Security program costs, individual benefit levels, and administrative costs, as acknowledged by the report. We also acknowledge that any change to how we compute COLAs would require a legislative change.

If you have any questions, please contact me at (410) 965-9704. Your staff may contact Trae Sommer, Acting Director of the Audit Liaison Staff, at (410) 965-9102.

Sincerely,

Stephanie Hall

Acting Deputy Chief of Staff