



## **Answers to Questions for the Record From Ranking Member Becerra Following a Hearing by the House Ways and Means Subcommittee on Social Security on Understanding Social Security's Solvency Challenge**

*On September 21, 2016, the House Ways and Means Subcommittee on Social Security convened a hearing at which Keith Hall, Director of the Congressional Budget Office, testified about CBO's long-term projections ([www.cbo.gov/publication/51988](http://www.cbo.gov/publication/51988)). After the hearing, Ranking Member Becerra submitted questions for the record. This document provides CBO's answers.*

**Question:** Please describe the model or approach the Congressional Budget Office (CBO) uses for making long-range projections, and what you know of the model and approach used by the Office of the Chief Actuary of the Social Security Administration, comparing and contrasting the relative strengths and weaknesses of each approach.

**Answer:** The Congressional Budget Office's long-term projections for Social Security spending and revenues are based on a detailed microsimulation model that starts with data about individuals from a representative sample of the population and projects demographic and economic outcomes for that sample through time.<sup>1</sup> For each person in the sample, the model simulates fertility, death, immigration and emigration, marital status and changes to it, labor force participation, hours worked, earnings, and payroll taxes, along with Social Security retirement, disability, and dependents' and survivors' benefits.

The amounts of Social Security taxes paid and benefits received, and the resulting gap between total revenues and benefits, depend on estimates of life expectancy, conditions in the labor market, and other factors. CBO's microsimulation model is designed so that, on average, the simulated economic outcomes of the sample equal the agency's long-term economic projections. Those economic projections are extensions of the 10-year economic

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1. The core individual-level data used in CBO's model come from the Continuous Work History Sample, an administrative data set provided by the Social Security Administration. Those data contain a history of individual earnings records for a sample, beginning in 1951, of 1 percent of all people who have been issued Social Security numbers. The data also contain demographic information and Social Security information for each individual. The information for Old-Age, Survivors, and Disability Insurance includes claiming dates, claim type (retiree, survivor, or disability), primary insurance amount, monthly benefit amount, and the reason for disability. For more detail, see Jonathan Schwabish and Julie Topoleski, *Modeling Individual Earnings in CBO's Long-Term Microsimulation Model*, Working Paper 2013-04 (Congressional Budget Office, June 2013), [www.cbo.gov/publication/44306](http://www.cbo.gov/publication/44306); and Congressional Budget Office, *CBO's Long-Term Model: An Overview* (June 2009), [www.cbo.gov/publication/20807](http://www.cbo.gov/publication/20807).

forecasts that underlie the agency's budget projections. They reflect not just historical averages but also trends that many economic forecasters expect will continue.<sup>2</sup>

CBO and the Social Security Trustees use different values for the projections' four key inputs: earnings subject to Social Security's payroll tax, key components of nominal growth in gross domestic product, demographics, and real (inflation-adjusted) interest rates. However, the approaches used by CBO and the Trustees to make estimates differ in various ways even when the four major inputs are the same. In CBO's modeling, payroll taxes collected from and Social Security benefits received by a retired worker are calculated on the basis of earnings projected for that person, thus ensuring consistency in the projections of payroll taxes and benefits. The Trustees project benefits on the basis of earnings data for a recent cohort of retired-worker beneficiaries and then adjust those data to account for future earnings growth and for other projected changes in the labor market. The Trustees project payroll taxes separately.

**Question:** Please elaborate further on your projections regarding changes in the rate of labor force participation, and the reasoning behind the assumptions you make about the future, compared to past experience. Also, why are these rates shown in presentation without adjustment for age or sex, and what is the impact of this on your modeling and projections?

**Answer:** Since 2000, the rate of labor force participation has declined by 4.6 percentage points, from 67.1 percent in that year to 62.5 percent today. CBO projects a continued decline of 7.9 percentage points over the next 75 years, with labor force participation reaching 54.6 percent in 2090. The Trustees project a decline of 2.2 percentage points for the same period. With an adjustment for changes in the number of people by age and sex over time since 2016 (that is, removing the effect of the changing age-and-sex mix of the population), CBO projects that the rate of labor force participation would decline by 0.8 percentage points between today and 2090, and the Trustees project an increase in that rate of 3.2 percentage points over the same period.<sup>3</sup>

CBO anticipates a decline in the labor force participation rate as the population ages, especially over the next two decades. The agency also expects that some long-term trends in participation will persist for particular groups of people. Specifically, it anticipates that participation rates for younger workers and for less educated workers will continue to decline. The falling participation among those two groups is expected to have a smaller effect on overall participation, however, than is the increasing retirement of the baby-boom generation.

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2. CBO regularly compares its two- and five-year economic forecasts with those of the Office of Management and Budget and organizations in the private sector. See Congressional Budget Office, *CBO's Economic Forecasting Record: 2015 Update* (February 2015), [www.cbo.gov/publication/49891](http://www.cbo.gov/publication/49891).
  3. In CBO's projections, the actual labor force participation rate declines by 0.8 percentage points and the rate of potential labor force participation declines by 1.6 percentage points. *Potential labor force participation* measures the number of people who would be in the labor force if the economy was at a condition of full employment. The adjustment made by the Social Security Administration in "Labor Force Participation Rates, Age-Sex-Adjusted to 2011 Population," an exhibit in that agency's testimony, accounts for the effect of the changing age-and-sex mix of the population since 2011. CBO's data account for changes in the age-and-sex mix of the population since 2016. See the testimony of Stephen C. Goss, Chief Actuary, Social Security Administration, before the Subcommittee on Social Security of the House Committee on Ways and Means, *Social Security's Solvency Challenge: Estimates for the Annual Trustees Reports and by CBO, 2002 through 2016* (September 21, 2016), p. 15, [www.ssa.gov/oact/testimony/](http://www.ssa.gov/oact/testimony/).

The reductions in participation will be modestly offset by a pair of trends working in the opposite direction. First, increasing longevity will lead people to work longer: In the coming decades, the average person is likely to work about three months longer for each additional year of life expectancy. Second, the population is becoming more educated, and workers with more education tend to stay in the labor force longer than do people with less education. CBO expects the rate of labor force participation for older workers to increase modestly.

CBO's projections of labor force participation vary by age and sex. (That variation is based on observed differences in participation according to those categories.) The overall labor force participation rate can be presented as a gross rate, which shows the effects of changing demographics over time.<sup>4</sup> Alternatively, that rate can be adjusted to remove the effects of the changing age-and-sex composition of the population. In both cases, the projections vary by age and sex; only the presentation of the overall rate varies. CBO's projections of Social Security's finances incorporate projections of labor force participation—including variations over time for different groups—and they account for the implications of participation for any individual person's eligibility for Social Security benefits and the amounts that person would receive in benefits.

**Question:** Please elaborate further on your projections regarding the rate of increases in income inequality, and the rationale for the assumptions you make about the future, compared to past experience.

**Answer:** Although the share of earnings for workers in the top percentile of the income distribution rose steadily in the 1980s and 1990s, it has fluctuated since then with conditions in the economy. The share fell during the recession that began in 2007 and has not returned to its prerecession level. In CBO's view, the data for the period from 2008 through 2014 about the top 1 percent of the income distribution are probably not informative about long-term trends because the 2007–2009 recession was unusually severe, especially for people with high income, and the subsequent recovery was unusually slow. It also is likely that many of those people shifted earnings from 2013 into 2012 to avoid the increases in tax rates that took effect in 2013. The earnings share of the top 1 percent rose in 2014, although it remained below the longer-term trend. CBO attributes some of that weakness to the fact that the economy was still operating appreciably below its potential in 2014.

For its projections of earnings shares over the coming decade, CBO relies on its review of longer-term trends. Specifically, the agency expects that the earnings share of the top 1 percent will rise, reaching the level suggested by extrapolation of the trend from 1978 to 2008 over the next few years and then following that trend for the remainder of the coming decade.

A smaller amount of the historical change in the income distribution has been caused by an increase in the share of earnings for workers in the 96th to 99th percentiles of the earnings distribution. Their earnings share has grown steadily—by about one-half of one percent per decade—since the late 1970s, when the relevant data began to be collected. That trend, which CBO projects will continue for the next 10 years, is expected to contribute to the changing of the income distribution over the same period.

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4. See the testimony of Keith Hall, Director, Congressional Budget Office, before the Subcommittee on Social Security of the House Committee on Ways and Means, *Comparing CBO's Long-Term Projections With Those of the Social Security Trustees* (September 21, 2016), p. 11, [www.cbo.gov/publication/51988](http://www.cbo.gov/publication/51988).

**Question:** Are there special considerations that should be taken into account when making long-term (75-year) projections as compared to making near-term projections, such as the 1, 5, or 10 years that have long been a focus for CBO?

**Answer:** CBO's long-term economic projections are extensions of the 10-year economic forecasts that underlie the agency's budget projections. The economic projections for the next few years are based on forecasts of cyclical developments, whereas projections for the final 5 years of a 10-year economic forecast are based primarily on projections of underlying trends in key variables along with federal tax and spending policies. For the period beyond a 10-year forecast, CBO projects economic and demographic conditions according to its assessment of long-term trends, which reflect not just historical averages but also trends that many economic forecasters expect will continue.

Budget projections are inherently uncertain, and that uncertainty increases as the analysis period lengthens. Even if laws did not change, the economy, demographics, and other factors would undoubtedly differ from CBO's projections, as would budgetary outcomes. Those differences could be within the ranges of experience observed in the relevant historical data—which, for the factors that CBO analyzes, cover roughly the past 50 to 70 years—or they might depart from historical experience. Moreover, significant budgetary effects could result from channels that CBO has not attempted to quantify in its analysis.

**Question:** Please discuss the notion of making incremental changes in assumptions from year to year, and how you approach whether and to what extent your assumptions should reflect recently-observed changes in economic and demographic behavior.

**Answer:** CBO produces independent and impartial analyses of budgetary and economic issues and considers it a priority to ensure that the agency's current-law budgetary and economic projections reflect the middle of the distribution of possible outcomes. The agency reviews historical data, the forecasts of other government agencies, and the academic literature, and it consults with its panels of advisers and other experts as it develops its projections.

CBO strives to update its projections as new information becomes available, which often requires the agency to exercise judgment about the extent to which that new information represents a change that is temporary or permanent. Such updates sometimes can lead to substantial changes from one year to the next, but CBO believes its approach provides the Congress with projections that incorporate the most current thinking. When the agency decides that relatively large revisions are warranted by new information and analysis, it explains the basis of those revisions.

For example, in 2016, CBO lowered its projection of the total fertility rate from 2.0 to 1.9 children per woman. (That rate is the average number of children that a woman would have in her lifetime if, at each age of her life, she experienced the birthrate observed or assumed for that year and if she survived her entire childbearing period.) Because historical data indicate that fertility rates often decline during recessions and rebound during recoveries, CBO did not immediately change its projection in response to the lower total fertility rates that resulted from the 2007–2009 recession. However, the U.S. fertility rate (which was 2.1 in 2007) dropped after that recession, and it has remained below 1.9 since then. For that reason—along with evidence that women are delaying childbearing to later ages—CBO lowered its projection this year.

**Question:** What is the oversight structure regarding your projections—what other entities review or have input into the development of the assumptions, the methods, and the results produced by the staff working on the projections?

**Answer:** CBO routinely consults panels of advisers that provide advice and feedback on CBO's macroeconomic forecasts and modeling of health-related programs. The agency also consults the reports of the Social Security Advisory Board's Technical Panels on Assumptions and Methods. CBO's analysts attend panel meetings and review reports, and CBO has incorporated various recommendations of those panels and used some of the Trustees' projections in its analyses. The agency also asks outside experts to comment on the assumptions and methods underlying its projections.

CBO updates its projections annually to incorporate the best information available from the research community along with feedback on the agency's analytical approach and other improvements in modeling. The projections are reviewed internally for analytical soundness in a process that involves many staff members throughout the agency. Before publication, CBO's long-term projections are subjected to rigorous internal fact-checking.