Congressional Budget Office

DECEMBER 2018

A Review of CBO's Estimate of the Effects of the Recovery Act on SNAP

In February 2009, in response to significant weakness in the economy, lawmakers enacted the American Recovery and Reinvestment Act of 2009. That legislation funded a broad range of new and existing federal programs and reduced revenues through changes in federal tax law. The Congressional Budget Office monitored actual spending under the Recovery Act (or ARRA) for several years after that enactment to assess the accuracy of its estimates of outlays for the legislation—both in total and for individual years and programs.

For the 2009–2013 period, outlays resulting from ARRA totaled $596 billion, about $54 billion (or 10 percent) above CBO's original estimate of $542 billion for that period.[1] Provisions related to unemployment insurance, nutrition assistance, and refundable tax credits together account for the underestimate.[2] In particular, CBO's estimate of spending for the Supplemental Nutrition Assistance Program (SNAP, which helps people in low-income households to purchase food) accounted for a substantial share of that underestimate. For all other programs, taken together, CBO's estimates of outlays from ARRA over the 2009–2013 period were within 6 percent of the actual total. This report focuses on the underestimate for SNAP and the reasons for it.[3]

Among its many other provisions, ARRA increased monthly benefits for SNAP participants. When the law took effect, the maximum monthly benefit for a household of four was raised by 13.6 percent, from $588 to $668. Benefits for households of other sizes increased similarly, and the law specified that the maximum benefits would remain at those amounts until the routine inflation adjustment that otherwise would have been applied to the benefit amount exceeded the increase provided under ARRA.

At the time of the law's enactment, CBO estimated that ARRA would increase spending on SNAP, relative to CBO's baseline, by $20 billion—or by 3 percent of total projected SNAP spending—over the 2009–2019 period, with nearly all of that spending occurring in the

1. See Congressional Budget Office, cost estimate for the conference agreement for H.R. 1, the American Recovery and Reinvestment Act of 2009 (February 13, 2009), www.cbo.gov/publication/41762.

2. Congressional Budget Office, "The Accuracy of CBO's Budget Projections," *CBO Blog* (March 25, 2013), www.cbo.gov/publication/44017. For additional discussion, see Congressional Budget Office, *Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output in 2014* (February 2015), www.cbo.gov/publication/49958.

3. On December 11, 2018, CBO issued a cost estimate for H.R. 2, the Agriculture Improvement Act of 2018 (the farm bill), which reauthorized SNAP (www.cbo.gov/publication/54880). This analysis is not related to that estimate or to the legislation.

Note: Unless otherwise indicated, all years referred to are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end. Numbers may not sum to totals because of rounding. The vertical bars in the figures indicate the duration of recessions, which extend from the peak of a business cycle to its trough.

Table 1.

ARRA-Related Outlays for SNAP Benefits, Estimated in February 2009 and Actual

Billions of Dollars

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total 2009–2013	Total 2009–2019
Estimated in February 2009													
Based on Provisions in ARRA	4.4	5.6	4.1	3.0	1.6	0[a]	0	0	0	0	0	18.7	18.7
Estimated Actual[b]	4.3	10.6	11.9	8.2	5.9	0.4	0	0	0	0	0	40.9	41.3
Overestimate or Underestimate (-)	**0.1**	**-5.1**	**-7.8**	**-5.2**	**-4.3**	**-0.4**	**0**	**0**	**0**	**0**	**0**	**-22.2**	**-22.6**
Memorandum:													
Outlays for SNAP Benefits, Projected in CBO's January 2009 Baseline	45.2	53.8	57.6	58.8	56.4	54.5	52.9	51.2	50.7	50.1	50.0	271.8	581.2

Source: Congressional Budget Office.

CBO estimated $20.0 billion in ARRA-related SNAP outlays over the 2009–2019 period. That estimate included $18.7 billion in outlays for benefits. The rest of the outlays were for administrative funding, the Food Distribution Program on Indian Reservations, block grants for Puerto Rico and American Samoa, and waiver rules for able-bodied adults without dependents.

ARRA = American Recovery and Reinvestment Act; SNAP = Supplemental Nutrition Assistance Program.

a. Excludes a small amount of spending on standard SNAP benefit payments for participants who enrolled in response to the increase in benefits.

b. Estimates of actual outlays are from the Office of Management and Budget, *Budget of the U.S. Government: Appendix* (various years), "Detailed Budget Estimates by Agency: Department of Agriculture." The 2014 amount is adjusted to exclude $5.2 billion in spending on standard SNAP benefit payments during a lapse in appropriations in October 2013.

first five years. CBO now estimates that ARRA increased total spending on SNAP by $43 billion over the 10-year projection period.[4] That is, the ARRA-related increase in spending on SNAP was more than double the amount CBO estimated in 2009.

About $19 billion of the estimated $20 billion increase in SNAP spending was for benefit payments. The rest encompassed outlays for changes to administrative funding, the Food Distribution Program on Indian Reservations, block grants for Puerto Rico and American Samoa, and time limits for able-bodied adults without dependents. CBO underestimated ARRA-related outlays on SNAP benefits by $22 billion over the 2009–2013 period (see Table 1).

This report explains the methods that CBO used in February 2009 to estimate additional federal spending as a result of the provision in ARRA that raised the maximum SNAP benefit. It also provides details about the factors that contributed to CBO's underestimate of that spending. In particular, CBO's estimate of ARRA-related spending on SNAP benefits in February 2009 was substantially below the actual amount over the 2009–2013 period for two main reasons, both involving CBO's baseline projections:

- About 90 percent of the difference is attributable to CBO's baseline projections of SNAP's average monthly benefits, which were substantially higher than the actual amounts. In its January 2009 baseline (which preceded the law's enactment), CBO overestimated the routine inflation adjustment applied to SNAP benefits, which was based on the agency's projection of the consumer price index (CPI) for food at home. That in turn caused CBO to underestimate the ARRA-related change in average benefits per person. Had CBO correctly projected the change in the CPI for food at home, the projection of ARRA-related spending on SNAP benefits would have been higher than it was and substantially closer to the actual amounts.

4. That number excludes $5.2 billion in spending made under ARRA's authority in October 2013 for routine SNAP benefit payments during a three-week lapse in appropriations for the program.

- The remaining 10 percent of the difference is explained by CBO's underestimate of SNAP participation, which arose in part from CBO's baseline projections of economic conditions.

Two factors affected actual ARRA-related spending on SNAP benefits between 2014 and 2019 that CBO could not have anticipated in completing its February 2009 estimate. The first was the 2010 enactment of legislation that ended ARRA-related spending on SNAP benefits after October 31, 2013. (In October 2010, CBO estimated the effects of repealing those benefits; see Box 1 on page 8.) The second was the federal government's shutdown in October 2013.

Any comparison of CBO's estimates with actual results is complicated by legislation that is enacted after an estimate is completed. CBO does not attempt to predict future legislative changes or their effects on outlays when it prepares its baseline budget projections or its cost estimates. In this case, ARRA-related spending on SNAP between 2014 and 2019, and thus CBO's underestimate of that spending, would have been substantially larger if not for the subsequent legislation that eliminated the increase in SNAP benefits provided under ARRA. Had the benefit increase not been repealed, CBO estimates, ARRA would have increased spending on SNAP benefits by another $23 billion over the 2014–2019 period, bringing the total estimated increase in outlays for benefits to $64 billion over the 2009–2019 period, or $46 billion more than CBO estimated in 2009.

CBO can compare its estimates of ARRA-related spending on SNAP with actual spending for two reasons. First, ARRA required federal agencies to report separately on spending arising from that law's provisions. Typically, changes in spending caused by changes in legislation are reported as part of overall program spending and therefore are difficult to isolate. In this case, however, the Treasury has reported its estimates of actual ARRA-related spending. Second, SNAP benefits increased for all participating households in an identifiable way. Thus, the actual cost of the increase is easier to estimate than it would have been if the effects of the legislation depended more on participants' behavior or on decisions made by state and local governments. For example, the effects of a policy that would change the application process would be much more difficult to estimate because of other factors that also influence the process.

How Did CBO Estimate the Effects of ARRA on SNAP?

SNAP eligibility is generally based on participation in other federal assistance programs or on household income and assets. In 2018, the federal government spent $68 billion on SNAP. In an average month that year, 40 million people (or one in eight U.S. residents) received benefits.

In February 2009, CBO estimated that outlays for the ARRA-related increase in SNAP benefits would be $19 billion, with all of that increase occurring between April 1, 2009, and September 30, 2013. That estimate was based on projections from CBO's January 2009 baseline and CBO's assessment of the effects of the provisions in ARRA affecting SNAP.[5]

CBO based its estimate of the ARRA-related increase in outlays for SNAP benefits on its projection of the ARRA-related change in the average monthly benefit per person and of the number of people participating in SNAP. For example, in February 2009, CBO estimated that in 2010, the first full year of ARRA's implementation, the average monthly benefit would increase by $13 (over its January 2009 baseline projection) and that, on average, 36.4 million people would participate each month (see Table 2). CBO estimated as a result that the ARRA-related increase in SNAP benefits in 2010 would be $5.6 billion.

Change in the Average Monthly Benefit per Person

The standard SNAP benefit (that is, the benefit amount had ARRA not been enacted) for any household is based on that household's net income and size and on the cost of the Thrifty Food Plan (TFP).[6] The TFP is a basket of foods selected by the Department of Agriculture that

5. See Congressional Budget Office, "Supplemental Nutrition Assistance Program—January 2009 Baseline" (January 2009), www.cbo.gov/sites/default/files/recurringdata/51312-2009-01-snap.pdf (14 KB).

6. Under current law, SNAP benefits are awarded to "food assistance units"—the general equivalent of households (the term used in this report) consisting of people who live together who are not necessarily members of a family but who share purchasing, preparation, and consumption of food.

Table 2.

Monthly SNAP Benefits and Participation from 2009 to 2013, Estimated in February 2009 and Projected in CBO's January 2009 Baseline

	2009	2010	2011	2012	2013
Average Monthly Benefit per Person			Dollars		
Estimated in February 2009 based on provisions in ARRA	136	136	135	135	134
Projected in CBO's January 2009 baseline	114	124	126	128	131
Increase	**22**	**13**	**9**	**7**	**4**
Number of People Participating			Millions of People		
Estimated in February 2009 based on provisions in ARRA	33.2	36.4	38.0	38.2	36.0
Projected in CBO's January 2009 Baseline	33.0	36.3	38.0	38.2	36.0
Increase	**0.2**	**0.1**	*	*	*
Memorandum:					
Maximum Monthly Benefit in SNAP for a Household of Four			Dollars		
Estimated in February 2009 based on provisions in ARRA	668	668	668	668	668
Projected in CBO's January 2009 baseline	588	624	637	645	655
Increase	**80**	**44**	**31**	**23**	**13**

Source: Congressional Budget Office.

ARRA provisions affecting SNAP were scheduled to go into effect on April 1, 2009, thus affecting spending for six months in 2009.

ARRA = American Recovery and Reinvestment Act; SNAP = Supplemental Nutrition Assistance Program; * = between zero and 50,000 people.

would provide a nutritious diet for a household of a particular size.[7]

CBO estimated that the ARRA-related increase in the average monthly benefit would be largest in 2009 and would subsequently lessen—as the standard benefit rose—until 2014, when the standard benefit would overtake the benefit set by ARRA. At that point, the ARRA-related change would be zero. CBO's estimate of the change was based on the difference between its baseline projection in January 2009 and its estimate in February 2009 of the benefit.

Baseline Projection in January 2009. In January 2009, CBO projected that the average monthly SNAP benefit per person would increase by about 8 percent in 2010, from $114 to $124, a historically large increase. CBO projected that average benefit growth in subsequent years would then be about 2 percent.

The baseline projection of the average benefit in a given year was based on the average benefit in the prior year, adjusted for recently enacted legislation, and on the projected change in the maximum benefit for a household of four people. CBO's projection of the change in the maximum benefit depended critically on the cost of the TFP, which was based on its projection of the change in the CPI for food at home. In the years before 2009, that method generally yielded projections that were quite close to the actual amounts.

Estimate Under ARRA in February 2009. To estimate average monthly benefits under ARRA, in February 2009, CBO generally used the same method but substituted the benefit amount specified in ARRA. CBO estimated that benefits would average $136 between April 1, 2009, and the end of that year and then would decline slightly through 2014 because the agency expected participants' earnings to increase, on average, as the economy improved.

CBO estimated that the benefit amount set by ARRA would have been above the cost of the standard benefit amount from April 2009 to September 2013. At that time, the standard benefit amount would have

7. For more information, see Andrea Carlson and others, *Thrifty Food Plan, 2006*, CNPP-19 (Department of Agriculture, Center for Nutrition Policy and Promotion, April 2007), https://go.usa.gov/xPeGb.

then overtaken the benefit amount set by ARRA, CBO estimated.

Number of SNAP Participants

In general, CBO's projections of SNAP participation are based on historical trends, projections of economic conditions (primarily the unemployment rate), and the agency's assessment of how much and how quickly participation would respond to changes in the economy.

CBO estimated that ARRA would increase the number of SNAP participants each month by 200,000 people, on average, in 2009 and by 100,000, on average, in 2010. CBO estimated no additional ARRA-related change in participation for 2011 or subsequent years.

Baseline Projection in January 2009. In the January 2009 baseline, CBO projected that average monthly participation in SNAP would peak at 38 million people in 2012 before declining to 34 million people in 2014.

That peak projection was higher than SNAP participation had ever been. CBO expected that the number of beneficiaries would rise substantially during an economic downturn like the one occurring in January 2009. CBO also expected that SNAP participation would continue to rise for about two years after a peak in the unemployment rate, as had been the case previously. As people's economic situations subsequently improved, the agency expected, some participants would leave the program and fewer people would newly enroll. In addition, CBO expected, some participants would remain in the program but receive smaller benefits as their earnings improved. Nevertheless, CBO expected that participation after the economic downturn would not drop back to its prerecession level.

Estimate Under ARRA in February 2009. CBO estimated that SNAP participation would increase slightly above the baseline projection—by less than 1 percent—in 2009 and 2010 because of benefit increases under ARRA. It estimated that the increase in the average monthly benefit would be 19 percent in 2009 and 10 percent in 2010 and that the change would result in a slight rise in participation, mainly among people who were made eligible for a small benefit by the new law.

In CBO's assessment, no new participants would enroll in 2011 or later years in response to the change in benefits. However, some of the participants who enrolled in 2009 and 2010 in response to the increase would remain in the program in those later years.

Why Did CBO's Estimate Differ From Actual Amounts Between 2009 and 2013?

In February 2009, CBO estimated that spending on SNAP for the benefit increase provided in ARRA would total $19 billion over the 2009–2013 period. Actual spending for those years was $41 billion, $22 billion more than CBO had projected.[8] The discrepancy can be attributed to two factors:

- Differences between the estimated and actual increase in the average monthly benefit amount that resulted from ARRA accounted for about 90 percent.
- Differences between estimated and actual participation in SNAP accounted for about 10 percent.

In general, although CBO's estimates of the budgetary effects of legislation might not always match actual effects because of program changes that are implemented differently than expected, CBO correctly anticipated the ARRA-related changes to SNAP: That is, the increase in the maximum benefit amount affected benefits for participating households as CBO expected it would. Rather, the error stemmed from CBO's baseline projections.

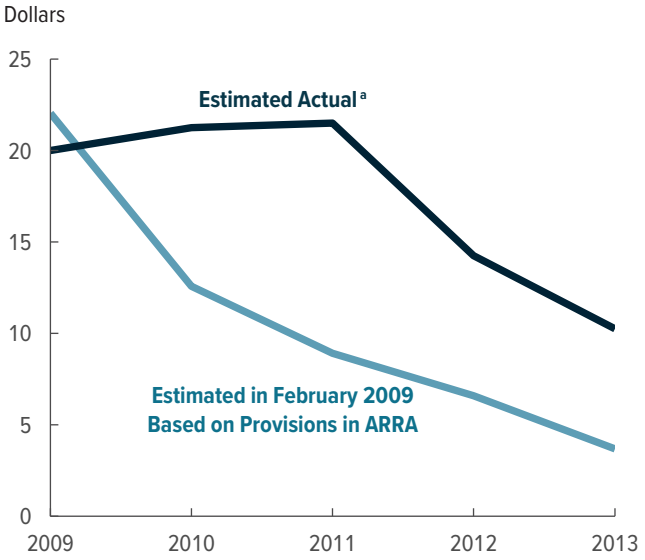
Change in the Average Monthly Benefit per Person

CBO underestimated the cost of increasing the standard SNAP benefit to the amount provided for in ARRA. That amount was known, but CBO's baseline projection of the standard SNAP benefit amount turned out to be too high. Specifically, CBO's January 2009 baseline (which was constructed before the provisions of ARRA were assessed) overestimated the annual increases in SNAP benefits under then-current law. In turn, the estimate of the difference between the standard benefit and the higher benefit specified in ARRA was too low (see Figure 1). CBO estimated that ARRA would increase the average benefit by about $13, from $124 to $136 in 2010 (the first full year for which ARRA affected benefits). CBO now estimates that the standard benefit would have been $113. The actual average benefit

8. Estimates of actual outlays are from Office of Management and Budget, *Budget of the U.S. Government: Appendix* (various years), "Detailed Budget Estimates by Agency: Department of Agriculture."

Figure 1.

Change in the Average Monthly SNAP Benefit per Person Resulting From ARRA



Source: Congressional Budget Office.

ARRA = American Recovery and Reinvestment Act; SNAP = Supplemental Nutrition Assistance Program.

a. CBO estimated the actual change in the average monthly benefit amount per person in two steps. First, the agency estimated the average monthly benefit amount under the standard rules of SNAP. Second, CBO subtracted that amount from the actual average monthly benefit amount under ARRA.

under ARRA was $134. That is, ARRA raised the average benefit from $113 to $134, or by $21—over one and a half times the amount CBO estimated in 2009.

CBO's projection of the standard SNAP benefit amount in the January 2009 baseline was too high largely because of its projection of the change in the CPI for food at home.

The Role of Food Prices. The CPI for food at home fell by more than one and a half percent in 2009, but CBO's January 2009 baseline had projected a rise of 4 percent. Because the annual TFP projection is based on the amount in the previous year, adjusted for inflation, CBO's overestimate of the increases in the food index for the first few years of the projection window caused it to overestimate the cost of the TFP throughout the 2009–2013 period.

The January 2009 forecast of food prices was based on information available to CBO through the third quarter of 2008—in the midst of economic turmoil associated with the recession. The forecast also coincided with a peak in food price inflation—already on the increase for about two years—driven by surging agricultural commodity prices around the world. Although CBO projected that inflation in the price of food at home in 2009 would be much lower than it was in 2008, prices in 2009 turned out to be even lower than CBO projected (see Figure 2). That swing in food price inflation between 2008 and 2009 was one of the largest since the 1950s. In particular, in the second quarter of 2009, the CPI for food at home had its largest single-quarter decline since the first quarter of 1967.

Had CBO correctly projected the CPI for food at home, its estimate of ARRA-related spending on SNAP benefits per person would have been higher and quite close to actual amounts because of the strong link between the standard SNAP benefit, based on the cost of the TFP, and the CPI for food at home. Other factors, such as the distribution of income among beneficiaries, also affect that average.

Considerations for Future Estimates. If CBO again needed to assess the cost of legislation that set a higher maximum benefit per household for SNAP, the agency would consider generating its cost estimate on the basis of an average of spending under different possible paths of food price inflation rather than on spending related to a single projected path.

Such an approach would give some weight to the possibility that the cost of the TFP either would decline or would increase more slowly than projected and that the effects on spending could be larger than estimated. That approach also would give some weight to the possibility that the cost of the TFP would increase more quickly than projected and that the effects on spending could be smaller—closer to zero. Because of the legislation's specified maximum benefit amount, estimation errors could be much greater in the first case. That is, if the cost of the TFP declined or increased slowly, the ARRA-related increase in benefits would be large and would remain large for many years. However, if the cost of the TFP increased quickly, the ARRA-related increase would be small and would decline to zero rapidly. CBO estimated that ARRA-related spending on SNAP benefits would be $19 billion over the 10-year window. The lowest that the actual amount could have been was zero, and therefore the largest possible overestimate of spending was $19 billion. Averaging over different likely paths of food

inflation would incorporate that asymmetry in a way that using a single path cannot.

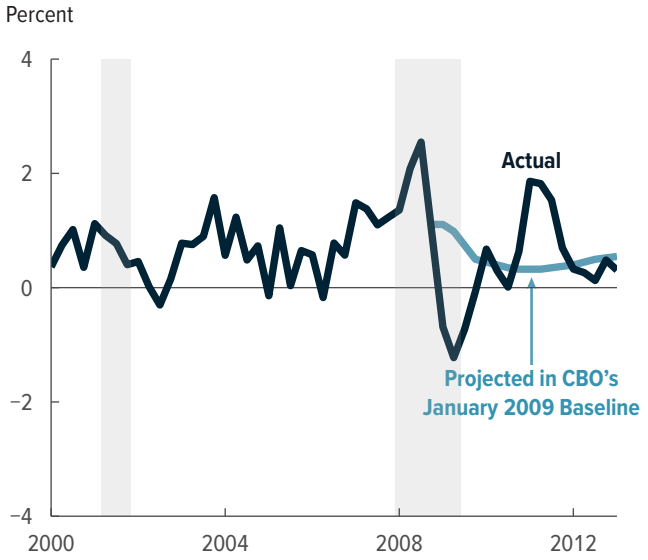
That approach is applicable more broadly. In general, when the possible costs of legislation are not distributed evenly around a single path, CBO considers generating a cost estimate on the basis of an average of spending under different likely paths. For example, if a single projected path for the unemployment rate in CBO's April 2018 baseline was used, CBO would estimate that legislation to provide additional benefits when the unemployment rate exceeds 5 percent would generate no increase in spending. In CBO's current projections, the unemployment rate does not exceed 4.9 percent over the next 10 years. If that was the only unemployment rate considered, legislation that would generate spending when unemployment tops 5 percent would not be projected to result in any cost to the federal government. However, given the uncertainty around economic forecasts, there is some chance that the unemployment rate would exceed 5 percent during that period. So, in that case, CBO would take into consideration different possible paths for the unemployment rate, some of which would be associated with increases in spending and some of which would not.[9] CBO's decision about whether to generate a cost estimate in that way is based on its assessment of the value and difficulty of such an estimate relative to a typical cost estimate and its ability to complete such an estimate while ensuring that it will be available for Congressional deliberation.

Number of SNAP Participants

Although projections of changes in the average monthly benefit account for most of the difference between CBO's estimate and actual ARRA-related SNAP spending on benefits, some of the difference between 2009 and 2013 arises from an underestimate of SNAP participation for that period (see Figure 3 on page 10). That underestimate occurred even though CBO projected that the share of the population participating in SNAP in 2012—that is, at the peak—would be about 15 percent higher than it had ever been. CBO's projection of SNAP participation depended on historical trends in participation, its projections of economic conditions, and its assessment of how responsive participation would be to those changing conditions.[10]

Figure 2.

Quarterly Change in the Consumer Price Index for Food at Home



Source: Congressional Budget Office.

The Role of Economic Conditions. For its 2009 estimate, CBO primarily used its projections of the unemployment rate as an indicator of economic conditions. That projection of the unemployment rate for the 2009–2013 period turned out to be lower than the actual rate. Although CBO had projected a rise, the rate climbed faster and stayed higher for longer than the agency—and many other forecasters—anticipated (see Figure 4 on page 11). Projecting the rate was difficult: The increase in unemployment between December 2008 and December 2009 was substantially greater than had been the case in the previous two recessions; it was the largest rise in 27 years. Moreover, although CBO projected that unemployment would ultimately decline to 5 percent in the fourth quarter of calendar year 2014, the rate did not fall to that level until the end of calendar year 2015.

9. See Congressional Budget Office, *Estimating the Costs of One-Sided Bets: How CBO Analyzes Proposals with Asymmetric Uncertainties* (October 1999), www.cbo.gov/publication/11843.

10. CBO's projection also accounted for changes in the program, including those affecting eligibility. In CBO's assessment, those changes were not a significant factor in the agency's underestimate of participation. See Congressional Budget Office, *The Supplemental Nutrition Assistance Program* (April 2012), www.cbo.gov/publication/43173.

Box 1.

CBO's 2010 Estimate of the Effects of Repealing ARRA-Related Spending on SNAP Benefits

In August 2010, the Congressional Budget Office estimated that a repeal after October 31, 2013, of the increase in benefits stipulated by the American Recovery and Reinvestment Act of 2009 (ARRA) for the Supplemental Nutrition Assistance Program (SNAP) would result in $14 billion in savings over the 2014–2020 period.[1] That projection, relative to CBO's March 2010 baseline (updated to account for the announced 2011 SNAP benefit amount), differs from a projection that might have been made relative to CBO's cost estimate for ARRA, which showed no ARRA-related costs over that period. By 2010, however, it was apparent that CBO's 2009 estimate of costs during that period was too low. In particular, in 2010 it was clear that it would take longer for the ARRA-related increase in benefits to fall to zero. CBO had incorporated that new information into its 2010 baseline projections.

CBO currently estimates that cumulative savings from that repeal will be $22 billion and that the savings will be realized over the 2014–2020 period. That is, CBO's 2010 estimate of savings was $8 billion below its current estimate (see the table).

How Did CBO Arrive at Its 2010 Estimate of Savings From the Repeal?

CBO's 2010 estimate for the savings from repealing the ARRA-stipulated increase in SNAP benefits was done in two steps.

First, the agency estimated the amount of SNAP spending for benefits that were the same as would have been paid out in the absence of ARRA. That estimate was based on CBO's estimates of changes in average benefits and participation. CBO's estimates of the changes in average benefits under standard SNAP rules were, in turn, based on its projections of the cost of the Thrifty Food Plan (TFP). The participation estimate was based on the projection in the March 2010 baseline, updated for changes in the price of the TFP announced by the Department of Agriculture in the summer of 2010. In CBO's assessment, repealing the ARRA-stipulated increase in SNAP benefits would not lead to a decline in participation because the change in benefits was not large enough to cause such a response.

Second, CBO subtracted that estimate of SNAP spending from SNAP spending projected in the March 2010 baseline, updated for changes in the price of the TFP.

How Did CBO Arrive at Its Current Estimate of Savings From the Repeal?

CBO has now estimated the savings associated with the repeal of the ARRA-stipulated increase in SNAP benefits after October 31, 2013, on the basis of its April 2018 baseline, updated for changes in the price of the TFP announced in summer of 2018. For 2010 to 2013, ARRA was current law and so there were no savings. For 2014 to 2017, savings were estimated on the basis of the actual number of participants and the difference between the estimate of the average monthly benefit amount had the ARRA-stipulated increase remained in place and the actual changes in the price of the TFP. For 2018 to 2020, savings were estimated on the basis of CBO's projections of the number of participants and of the difference between CBO's baseline projection of the average monthly benefit and its estimate of the average monthly benefit if benefits were as specified in ARRA.

1. In August 2010, Public Law 111-226 eliminated the ARRA increase in SNAP benefits after March 31, 2014. See Congressional Budget Office, cost estimate for Senate Amendment 4575, containing proposals related to education, state fiscal relief, the Supplemental Nutrition Assistance Program, rescissions, and revenue offsets (which became H.R. 1586 and, subsequently, P.L. 111-226) (August 4, 2010), www.cbo.gov/publication/21718. In December 2010, P.L. 111-296 eliminated the ARRA increase in SNAP benefits after October 31, 2013. See Congressional Budget Office, cost estimate for S. 3307, the Healthy, Hunger-Free Kids Act of 2010 (August 5, 2010), www.cbo.gov/publication/21729.

Continued

For this estimate, CBO also considered its projections of the changes in the CPI for food at home as an indicator of economic conditions. CBO projected that the index would rise—a factor in its projection that participation in the SNAP program would increase above its historical peak. However, the index did not rise as CBO had anticipated, and CBO's overestimate caused it to project a larger increase in participation than it otherwise would have. That effect, however, was dwarfed by the other economic effects.

Had CBO's projection of economic conditions in January 2009 been closer to the actual case, its projection of SNAP participation in the ensuing years might have been slightly higher than it was and might have stayed higher for longer. Despite that, CBO's projection would

Box 1. Continued

CBO's 2010 Estimate of the Effects of Repealing ARRA-Related Spending on SNAP Benefits

What Explains the Difference?

The difference between the original estimate and the current estimate of the savings over the 2014–2020 period from repealing ARRA's increase in SNAP benefits is associated with two factors: the number of people participating and the change in benefits per person that was associated with the repeal.

The more significant factor was that CBO's projection of SNAP participation over the 2010–2017 period was too low. In 2010, CBO expected that participation would be higher than it had anticipated in 2009, but it still did not project the full increase in participation that occurred.

CBO also underestimated the change in benefits associated with repealing the ARRA-related increase. CBO's 2010 estimate of the average standard SNAP benefit over the 2010–2020 period was too high because its projection of the change in the consumer price index for food at home was too high. That is, CBO projected that the standard SNAP benefit amounts would catch up to and exceed the amounts specified in ARRA more quickly than has occurred. Thus, CBO underestimated both the amount and the duration of ARRA-related spending on SNAP benefits per person.

Savings Associated With Eliminating the ARRA-Related Increase in SNAP Benefits After October 31, 2013

Billions of Dollars

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2010–2020
Estimated in August 2010	0	0	0	0	5.3	4.3	2.7	1.2	0.4	0	0	13.9
Estimated in 2018[a]	0	0	0	0	4.7	2.7	2.9	3.8	3.5	3.0	1.5	22.1
Overestimate or Underestimate (-)	**0**	**0**	**0**	**0**	**0.6**	**1.6**	**-0.2**	**-2.6**	**-3.1**	**-3.0**	**-1.5**	**-8.2**

Source: Congressional Budget Office.

A change in law in August 2010 (Public Law 111-226) eliminated the increase in SNAP benefits specified in ARRA after March 31, 2014, and a change in law in December 2010 (the Healthy, Hunger-Free Kids Act of 2010, P.L. 111-296) eliminated the increase in SNAP benefits specified in ARRA after October 31, 2013.

ARRA = American Recovery and Reinvestment Act; SNAP = Supplemental Nutrition Assistance Program.

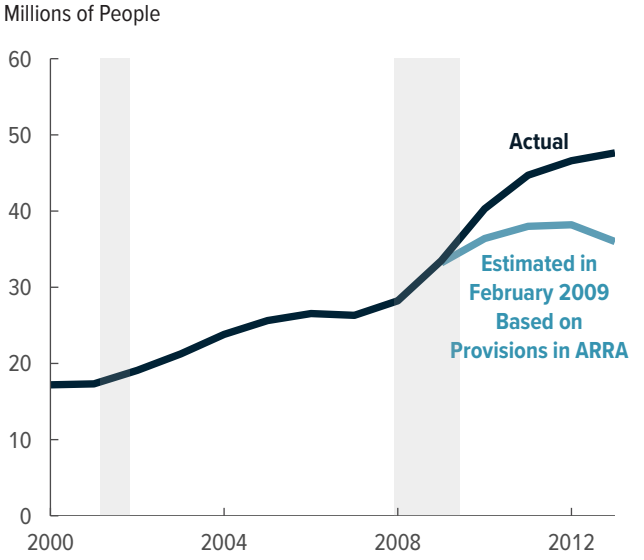
a. Estimated on the basis of the April 2018 baseline (updated to account for changes in the price of the Thrifty Food Plan announced by the Department of Agriculture in the summer of 2018). That baseline includes actual participation and average benefits from 2010 to 2017 and projections for 2018 and later.

not have been substantially higher: It would still have been well below the actual increase in participation.

Considerations for Future Cost Estimates. Cost estimates reflect both the baseline projection under current law and the methods used to analyze changes in law. If the country faced economic conditions now that were similar to those that prevailed over the 2008–2013 period, CBO's baseline projection of the attendant increase in SNAP participation probably would be larger than it its January 2009 projection. The new evidence for such a rise in program participation would cause the agency to consider an increase to be likelier than it did in 2009. The actual increase in 2009 also means that many more people now have experience with SNAP. In CBO's assessment, those people would be more likely to participate than would people who have never enrolled at all.

Figure 3.

Participation in SNAP



Source: Congressional Budget Office.

ARRA = American Recovery and Reinvestment Act; SNAP = Supplemental Nutrition Assistance Program.

Although in CBO's assessment, the increase in participation was largely the result of weak economic conditions, the data the agency examined do not distinguish whether the underestimate of participation in SNAP stemmed from a baseline projection of participation that was too low or from a cost-estimating method that underestimated the response to the increased benefit. As it prepares to analyze future proposals, CBO will continue to monitor the research about participation in response to changes in benefit amounts.

What Factors Affected CBO's Estimates Between 2014 and 2019?

Two additional events affected ARRA-related spending on SNAP between 2014 and 2019: the enactment in 2010 of legislation eliminating the ARRA increase in SNAP benefits after October 31, 2013, and the federal government's shutdown in October 2013.

Legislation in 2010

In February 2009, CBO estimated that there would be minimal ARRA-related spending on SNAP after October 31, 2013. Then, in December 2010, the Healthy, Hunger-Free Kids Act of 2010 eliminated the ARRA increase in SNAP benefits after October 31, 2013.[11] Hence, the actual outcome for the 2014–2019 period turned out to closely match CBO's February 2009 estimate.

However, ARRA-related spending on SNAP between 2014 and 2019, and thus CBO's underestimate of that spending, would have been substantially larger if not for that subsequent legislation. Had the benefit increase not been repealed, CBO estimates, ARRA would have increased spending on SNAP well beyond 2014, adding another $21 billion over the 2014–2019 period.

By early 2010, as it does every year, CBO had updated its baseline to reflect new information on spending and revenues, newly enacted legislation, significant economic developments, and improvements to projections. At that point, the decline in food price inflation had become more apparent, and CBO projected that ARRA-related spending on SNAP would continue after October 31, 2013.

Relative to the March 2010 baseline updated for changes in the price of the TFP announced by the Department of Agriculture in the summer of 2010, CBO estimated in August 2010 that legislation repealing the ARRA-related increase in SNAP benefits after October 31, 2013, would reduce that spending by $14 billion. Nevertheless, as it had in February 2009, CBO underestimated ARRA-related outlays on SNAP benefits and thus underestimated the savings from eliminating those outlays (see Box 1 on page 8).

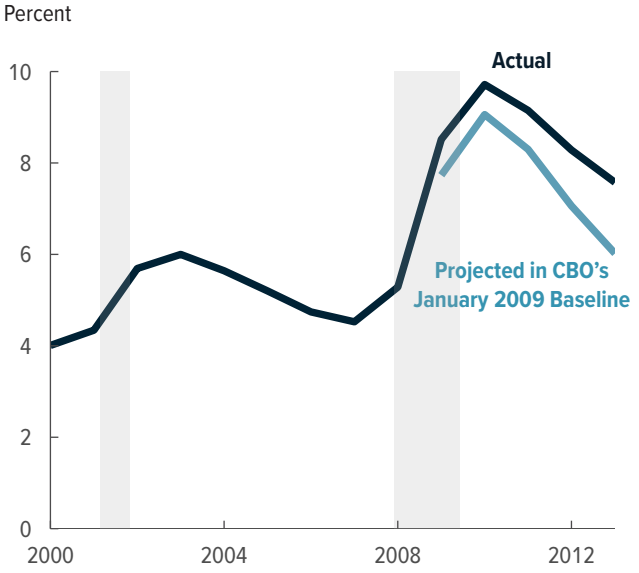
Government Shutdown

On October 1, 2013, appropriated funds lapsed and normal operations of the federal government were suspended (that is, the government entered what is often called a partial shutdown). Normal operations of the federal government resumed on October 17, 2013. On October 1 of that year, the Department of Agriculture issued guidance that households eligible for SNAP benefits would still receive them in October, despite the lack

11. That law superseded Public Law 111-226, enacted in August 2010, which eliminated the ARRA increase in SNAP benefits after March 31, 2014. See Congressional Budget Office, cost estimate for S. 3307, the Healthy, Hunger-Free Kids Act of 2010 (August 5, 2010; that bill became P.L. 111-296), www.cbo.gov/publication/21729, and the cost estimate for Senate Amendment 4575, containing proposals related to education, state fiscal relief, the Supplemental Nutrition Assistance Program, rescissions, and revenue offsets (August 4, 2010; that bill became H.R. 1586 and, subsequently, P.L. 111-226), www.cbo.gov/publication/21718.

Figure 4.

Unemployment Rate



Source: Congressional Budget Office.

The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force.

of appropriated funds.[12] According to the department, the authority to make such payments came from ARRA, in which the Congress provided "such sums as are necessary" to finance SNAP benefits at the level provided for in that law.[13] (Effectively, ARRA authority was used to increase SNAP benefits from zero when the government shut down on October 1.)

As a result, the ARRA-related costs of $5.8 billion for that month encompass the full cost of SNAP benefits, not just the portion related to the increase stipulated in ARRA. Most of that spending—$5.2 billion—would have occurred later in the month, once the appropriation was enacted. Moreover, when CBO estimated the effects of ARRA on SNAP, such spending was projected in the baseline because it was attributable to then-current law. CBO does not include those costs when comparing its estimate with actual spending.

12. For budgetary purposes, SNAP is designated in law as a direct spending program, a category that generally consists of programs that do not receive annual appropriations. However, funds are appropriated each year to cover program costs. For further information, see Congressional Budget Office, *The Supplemental Nutrition Assistance Program* (April 2012), www.cbo.gov/publication/43173.

13. Jessica Shahin, Associate Administrator, Supplemental Nutrition Assistance Program, Department of Agriculture, letter to SNAP state agency directors, "Update on Food and Nutrition Service Operations, Supplemental Nutrition Assistance Program (SNAP)" (October 1, 2013).

This report evaluates a CBO cost estimate. Such evaluations help guide CBO's efforts to improve the quality of its projections and, as background information, are intended to assist Members of Congress in their use of the agency's estimates. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

Molly Dahl wrote the report, Kathleen FitzGerald prepared the estimates, and Jordan Berne provided research assistance. Sheila Dacey, Theresa Gullo, Joseph Kile, and Sam Papenfuss provided guidance. Comments were provided by Alissa Ardito, Robert Arnold, Tia Caldwell, Gloria Chen, Sebastien Gay, Jennifer Gray, Edward Harris, and John McClelland.

Randy Aussenberg of the Congressional Research Service, Angela Rachidi of Mathematica Policy Research, and Dottie Rosenbaum of the Center on Budget and Policy Priorities also offered comments. The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.

Wendy Edelberg, Mark Hadley, Jeffrey Kling, and Robert Sunshine reviewed the report; Kate Kelly edited it; and Casey Labrack prepared it for publication. This report is available on CBO's website (www.cbo.gov/publication/54864). CBO seeks feedback to make its work as useful as possible. Please send comments to communications@cbo.gov.

Keith Hall
Director