Congressional Budget Office

JUNE 10, 2014

Answers to Questions for the Record Following a Hearing on the Budget and Economic Outlook for 2014 to 2024 Conducted by the Senate Committee on the Budget

On February 11, 2014, the Senate Committee on the Budget convened a hearing at which Douglas W. Elmendorf, Director of the Congressional Budget Office, testified about CBO's report The Budget and Economic Outlook: 2014 to 2024 *(February 2014), www.cbo.gov/publication/45010. Some Members of the Committee submitted further questions for the record, and this document provides CBO's answers.*

Ranking Member Jeff Sessions

Question: On page 117 of Appendix C of the latest Budget and Economic Outlook, "CBO estimates that the [Affordable Care Act] will cause a reduction of roughly 1 percent in aggregate labor compensation over the 2017–2024 period, compared with what it would have been otherwise." CBO also reports that "the largest declines in labor supply will probably occur among low-wage workers."

Based on CBO's estimates in Appendix C, please provide the data and a distributional analysis showing who would be affected by the reduction in compensation. Please provide the median income of workers that will experience a reduction in labor compensation in each year over the 2014 to 2024 period. Please also provide the number of workers making less than 400 percent of the federal poverty level that will experience a reduction in labor compensation, including the average income for this group and the average reduction in labor compensation for this group.

Answer: As described in Appendix C of *The Budget and Economic Outlook: 2014 to 2024* (www.cbo.gov/publication/45010), the Congressional Budget Office expects that the Affordable Care Act (ACA) will reduce the number of full-time-equivalent workers by about 2.0 million in 2017; that number will increase to about 2.5 million in 2024. That reduction will occur almost entirely because workers will choose to supply less labor given the new taxes and other incentives they will face and the financial benefits some will receive. Some of the reduction will arise from people choosing not to work at all and some will arise from other people choosing to work fewer hours than they would have in the absence of the law.

CBO's method for estimating the labor market effects of the ACA was designed to estimate the aggregate effect but not the effect on individual workers or subsets of the population. Consequently, CBO does not have a basis for estimating either the median income of the workers who will experience a reduction in labor compensation or the effects on workers whose income is below 400 percent of the federal poverty guidelines (commonly called the federal poverty level, or FPL).

The subsidies for health insurance purchased through the exchanges and the expansion of eligibility for Medicaid account for the largest effects on labor supply. Because only families whose income is below 400 percent of the FPL are eligible for those programs under the ACA, the largest declines in labor supply will occur among such families. Other provisions of the law will affect people in that income range and in higher income ranges.

Question: In November 2012, CBO released a paper (*Effective Marginal Tax Rates for Low- and Moderate-Income Workers*) that complements the analysis found in Appendix C of the latest Budget and Economic Outlook. That paper estimates the effective marginal tax rates for low- and moderate-income workers and finds that increases in earnings for low-wage workers can cause large reductions in federal assistance programs relative to their incomes, which also reduces their incentive to work.

Please provide an estimate of the reduction in aggregate labor compensation and hours worked caused by the other federal low-income assistance programs included in CBO's November 2012 analysis that is in addition to the reduction caused by the Affordable Care Act over the 2014 to 2024 period.

Answer: CBO has not estimated the effects of other low-income assistance programs on labor markets, and doing so would be a complex and difficult undertaking. A November 2012 study, *Effective Marginal Tax Rates for Low- and Moderate-Income Workers* (www.cbo.gov/publication/43709), examined the effects of some other transfer programs, such as the Supplemental Nutrition Assistance Program and federal housing assistance, on marginal tax rates (that is, the rates that apply to their last dollar of income) for low- and moderate-income families, but not on labor markets. CBO is working to improve its ability to estimate the effects of federal policy on economic activity, including its ability to estimate the effects of transfer programs on labor supply.

Question: CBO has reported that borrowing for economic stimulus programs provides a short-term benefit to the economy, but is a net detriment over 10 years. For example, CBO estimated that the 2009 stimulus legislation would increase economic output near term, but noted that over 10 years output would be lower because of the increase in government debt (February 11, 2009, Letter to Senator Gregg).

Is it therefore correct to say that the benefit of economic stimulus programs financed through increased federal deficits is short-lived, but that their cost is permanent, continuing for decades afterwards because of the added federal debt?

Answer: Relative to projections under current law, CBO estimates, policies that led to larger deficits by raising spending or cutting taxes would boost real (inflation-adjusted) gross domestic product (GDP) in the short term—reflecting the effects of tax and spending policies on the demand for goods and services. By contrast, CBO estimates that sustained higher deficits would lead to lower GDP over the longer term—reflecting the effect of deficits on national saving and domestic investment (but not accounting for any changes to households' incentives to work or save stemming from changes to tax policies or benefit programs). CBO's analysis of the economic effects of the American Recovery and Reinvestment Act is an example of those points (see CBO's letter to the Honorable Judd Gregg concerning the estimated macroeconomic impacts of H.R. 1 as passed by the House and by the Senate, February 11, 2009, www.cbo.gov/publication/20474). On the basis of those estimates, CBO concludes that the benefits of fiscal stimulus are temporary but the costs are permanent.

Some researchers have reached a different conclusion, however, maintaining that policies that boost overall demand in the short term under current economic conditions may have positive economic and budgetary effects in the long term as well because the increase in demand raises the economy's long-term potential (maximum sustainable) output by enough to offset the negative effects on potential output of higher federal borrowing. If, for example, a short-term increase in overall demand lowers the natural rate of unemployment (the rate that arises from all sources except fluctuations in aggregate demand) in the longer term, that effect will increase labor income and tax revenues in the longer term as well. How significant such an effect might be is unclear. Moreover, that effect would interact with the negative effects on investment and federal borrowing costs that also result from the increase in federal deficits. Given the uncertainty of the channels through which a short-term increase in demand could raise potential output in the long term, CBO does not incorporate such an effect in its analyses, although the agency continues to investigate this issue.

It is also possible for lawmakers to enact policy changes that vary over time. If lawmakers wanted to raise GDP both in the short term and the longer term relative to projections under current law, they could devise a combination of policies that increased deficits during the first few years and decreased them by a greater cumulative amount thereafter (ultimately leading to less debt than would arise under current law).

Question: CBO estimates that the growth of real GDP will decline over the current budget window, reaching only 2 percent in 2024 (4th quarter to 4th quarter). But perhaps more important to the standard of living of working Americans is the growth in per capita GDP.

Staff has estimated that the growth in per capita GDP (with total population in the denominator) declines every year after 2016 in CBO's outlook. Please provide CBO's estimates of real GDP per capita for each year of the budget window and the rate of change of that indicator. Please also provide analysis regarding the implications of declining per capita output for Americans' standard of living, including data on the likely effect on wages by income.

Answer:

CBO's Projections of Real GDP Per Capita, 2014 to 2024

(Thousands of 2009 dollars)

	GDP Per Capita	Percentage Change From Prior Year
2014	50.9	1.9
2015	52.0	2.2
2016	53.2	2.2
2017	54.0	1.6
2018	54.8	1.4
2019	55.5	1.3
2020	56.1	1.2
2021	56.8	1.2
2022	57.5	1.2
2023	58.2	1.2
2024	58.8	1.1

Note: Projections are for the fourth quarter of each calendar year.

Real GDP = gross domestic product adjusted to remove the effects of inflation.

Many factors, including per capita GDP, affect Americans' standard of living. Although CBO has not analyzed all of those factors or their effects, the agency projects that real GDP per capita will grow, on average, by about 2 percent per year between 2014 and 2017, when it is expected to return to its historical relationship with the economy's potential output. CBO projects that, after 2017, real GDP will grow at the same rate as potential GDP—by an average of about 2¼ percent per year during the 2018–2024 period—because the agency does not attempt to predict the timing or magnitude of business cycle fluctuations in the economy so far into the future. With the population expected to grow by about 1 percent per year, real GDP per capita is projected to grow, on average, by about 1¼ percent per year between 2018 and 2024—a slower rate than the annual average rate of about 2 percent since 1950. That difference reflects CBO's projection that real GDP will grow more slowly over the latter part of the projection period than it has in the past several decades, primarily because of slower growth of the labor force stemming from the retirement of the baby boom generation.

CBO has not analyzed the effects of changes in per capita GDP on wages by income quartile. However, the projected slower-than-average growth in GDP would be expected to lead to slower-than-average growth in wages, salaries, and overall income across the economy.

Senator Mike Crapo

Question: Do you believe the fiscal crisis is over? Do you believe that Washington's balance sheet is now on sustainable footing?

Answer: The Congressional Budget Office projects that the economy will grow notably faster over the next few years than it has in the recent past. Real gross domestic product (or GDP; real GDP is output adjusted to remove the effects of inflation) is expected to increase by roughly 3 percent between the fourth quarter of 2013 and the fourth quarter of 2014—the largest rise in nearly a decade. Similar annual growth rates are projected through 2017. Nevertheless, CBO estimates that the economy will continue to have considerable unused labor and capital resources (or "slack") for the next few years. Although the unemployment rate is expected to decline, CBO projects that it will remain above 6.0 percent until late 2016.

Although the federal budget deficit has fallen sharply during the past few years and is on a path to decline further this year and next, the nation's long-term budgetary outlook remains worrisome. The large budget deficits recorded in recent years have substantially increased federal debt, and the amount of debt relative to the size of the economy is now very high by historical standards. Assuming that no legislative action is taken that would significantly affect revenues or spending, CBO estimates that federal debt held by the public will equal 74 percent of GDP at the end of this year and will reach 79 percent in 2024, its highest level since 1948 and roughly double the average of about 40 percent experienced over the 1974–2013 period. Under current law, it is projected to grow steadily after that. Under CBO's extended baseline, federal debt held by the public is projected to reach 95 percent of GDP by 2030 and 135 percent by 2040 and would, at that point, be on an upward path (see *Budgetary and Economic Outcomes Under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Ryan, April 2014,* www.cbo.gov/publication/45211).

Increased borrowing by the government eventually would reduce private investment in productive capital because the portion of total savings that investors used to buy Treasury securities would not be available to finance private investment. The result would be a smaller stock of capital and lower output and income in the long term than would otherwise be the case. Lower income would reduce tax revenues, but it also would reduce federal spending—although by a smaller amount—for example, by decreasing benefits from Social Security.

The large and growing amount of federal debt that CBO projects under the extended baseline would have significant negative consequences in addition to its effects on output and the economic feedback on the budget. Higher federal spending to pay interest on the debt would require larger changes in tax and spending policies to meet any chosen targets for budget deficits and debt. At the same time, the government would have less flexibility to use tax and spending policies to respond to unexpected challenges, such as those posed by an economic downturn or a war. In addition, the risk of a fiscal crisis—in which investors would demand very high interest rates to finance the government's borrowing needs—would be greater.

Question: Your report projects the economy to hit its potential in 2017, and grow at 2.7 percent, correct? But then you have lowered your projections for the remainder of the budget window, with growth only averaging 2.2 percent. What is the cause of the lowering of your projections of economic growth?

Answer: Economic growth in the early years of the projection period is projected to be faster, on average, than in the later years because in the early years, the economy will still be in the process of recovering from the recent recession. As measured by the change from the fourth quarter of the previous year, real GDP is projected to increase by 3.1 percent in 2014 and by 3.4 percent per year in 2015 and 2016; real GDP is projected to grow by 2.7 percent in 2017, when it is expected to return to its historical relationship with potential (or maximum sustainable) GDP. Thereafter, from 2018 through 2024, CBO projects that real GDP will grow at the same rate as potential output; the agency does not attempt to predict the timing or magnitude of business cycle fluctuations in the economy so far into the future. Real GDP is projected to grow, on average, by 2.2 percent annually over that period.

Potential GDP is projected to grow by 2.1 percent per year, on average, over the next decade—significantly below the average rate since 1950. That difference is attributable mostly to long-term trends—notably, the slower growth of the labor force that will result from the aging of the baby-boom generation. In addition, by CBO's estimates, potential GDP in 2024 will be constrained by the lingering effects of the recent recession and the ensuing slow recovery and by federal tax and spending policies in current law.

Question: Your report projects a dramatic decline in the labor force participation rate, with the rate in 2024 being only 60.8 percent, the lowest rate since 1973. What are the drivers of this exodus from the workforce?

Answer: CBO projects that the labor force participation rate, which averaged 62.9 percent in the fourth quarter of 2013, will stay the same, on average, in 2014 but will decline to 62.5 percent by the end of 2017 and to 60.8 percent by the end of 2024. (In the fourth quarter of 2007, when the last recession began, the labor force participation rate was 66.0 percent.)

From now through 2017, CBO anticipates, many people who left the labor force because of a lack of job opportunities will return as labor market conditions improve, and the number of people who stay out of the labor force altogether (for example, to attend school) will diminish. However, CBO expects, the cyclical recovery in participation will be more than offset by the downward pressure on participation that arises from structural changes in the labor market that have boosted the natural rate of unemployment (the rate of unemployment that arises from all sources except fluctuations in aggregate demand). The most significant effect will come from the aging of the population. To a lesser extent, the Affordable Care Act (ACA) also will tend to reduce participation during those years, although its full impact will not be felt until later in the coming decade. Several provisions of the ACA will affect the labor market, but the largest effects on labor force participation will arise from new subsidies that reduce the cost of health insurance purchased through exchanges. Because the ACA provides larger subsidies to people with lower income, their net compensation for an additional hour of work will be reduced; in addition, those subsidies will make some of them better off financially. As a result, some will choose to work less than they otherwise would.

The further projected decline in the participation rate after 2017 primarily reflects demographic changes, especially the ongoing aging of the population. Those effects are offset in part by a reduction in the number of people who will have permanently stopped looking for work because of the recession and the ensuing slow recovery; many of those people would, by that period, have left the labor force anyway through retirement or by some other means. Still, CBO estimates that the lasting effects of the recession and slow recovery will depress labor force participation by 0.4 percentage points in 2024.

Question: Is it not true that, if allowed to continue on their current course, the Social Security Disability Insurance program will be insolvent within the next two to three years? Is it also not true that the Medicare program is projected to be insolvent just beyond the 2024 ending of the current budget window, and that Social Security is projected to be insolvent within 10 years of the end of the budget window?

Answer: As indicated in *The Budget and Economic Outlook: 2014 to 2024* (www.cbo.gov/publication/45010), CBO expects that, unless some legislative action is taken, the balance of Social Security's Disability Insurance Trust Fund will be exhausted in fiscal year 2017. Under its extended baseline, CBO projects that the trust fund that finances Social Security's Old-Age and Survivors Insurance will be exhausted in calendar year 2033 and that, if considered together, Social Security's trust funds will be exhausted in calendar year 2031. Those latter projections were published last September in *The 2013 Long-Term Budget Outlook* (page 54, www.cbo.gov/publication/44521).

CBO projects that, under current law, Medicare's Hospital Insurance Trust Fund (which accounts for payments made to hospitals and providers of postacute care services under Medicare's Part A) is likely to be exhausted just after 2024. Other parts of Medicare also have trust funds, but they are financed in part by transfers from the U.S. Treasury's general fund in a way that generally will prevent them from becoming exhausted.

Question: Your report indicates revised anticipated exchange enrollment numbers down from 7 million to 6 million in 2014 due to technical difficulties during the website rollout. Does this number also consider individuals who did not enroll in exchange plans because they were allowed to keep noncompliant health plans through 2014?

Given the Obama Administration's recent announcement that it may extend the ability to keep noncompliant plans for an additional 3 years, what effect do you think this will have on future enrollment?

More importantly, what will continued low enrollment do to future premiums for plans purchased on the exchange?

Answer: In April, CBO released *Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act* (www.cbo.gov/publication/45231), which indicates that, over the course of calendar year 2014, an estimated 6 million people will be covered by insurance obtained through the exchanges. The total number who will have coverage at some points during the year is expected to be more than the average because some people will be covered for only part of the year. The projection takes into account the Administration's March 2014 announcement that, through October 1, 2016, state insurance commissioners may permit health insurers to re-enroll individuals and small businesses in existing plans that do not comply with the ACA's rules, allowing such coverage to continue through September 2017. That announcement extended an action announced in November 2013 that permitted the renewal of noncompliant policies through October 1, 2014 (extending coverage through September 2015).

CBO and the staff of the Joint Committee on Taxation (JCT) estimate that the March 2014 announcement will slightly reduce enrollment in ACA-compliant plans sold through the exchanges and through the nongroup and small-group markets outside of the exchanges because some people will take advantage of this option by renewing their coverage in noncompliant plans. CBO and JCT also estimate that the March announcement will slightly reduce federal spending for exchange subsidies because some people who would have enrolled in a subsidized plan through the exchanges will instead renew coverage in noncompliant plans (which cannot be sold through the exchanges and are not subsidized). In addition, the lower premiums that small employers and self-employed people are likely to pay for noncompliant plans will generate a small amount of additional tax revenues because those enrollees will have more taxable income as a result.

CBO and JCT expect that people who renew noncompliant plans will be healthier, on average, than people who enroll in ACA-compliant plans, leading to slightly higher medical claims per enrollee in ACA-compliant plans. However, CBO and JCT expect that such adjustments will have a negligible effect on average premiums in exchange plans because the number of people who re-enroll in noncompliant plans will probably be small relative to total enrollment in exchange plans. CBO and JCT expect that enrollment in noncompliant plans in the nongroup market outside of the exchanges will total about 2 million in 2014. As the effects of early renewals and the administrative extensions wane, such enrollment is projected to decline to 1 million in 2015 and then to fall to negligible numbers of people in 2016 and thereafter.

CBO and JCT have not analyzed what would happen to premiums if enrollment in exchange plans remained relatively low. In its April 2014 report, CBO projects that enrollment in exchange plans will increase from 6 million in 2014 to 25 million in 2017 and later years. The report identified two competing ways in which rising enrollment will affect premiums—forces that might not arise if enrollment does not grow:

- On the one hand, CBO and JCT anticipate that exchange enrollees in the future will be healthier, on average, than the smaller number of people who are obtaining such coverage in 2014. That factor is expected to lower premiums in 2015 relative to those in 2014.

- On the other hand, CBO and JCT anticipate that as enrollment increases, many exchange plans will not be able to sustain provider payment rates that are as low or provider networks that are as narrow as they appear to be in 2014. That factor will raise exchange premiums in 2015 relative to those in 2014.

Whether premiums will be higher or lower than currently projected if enrollment in exchange plans turns out to be lower than CBO anticipates will thus not be clear without careful additional analysis.

Question: Although the employer mandate has not yet taken effect, can you anticipate what percentage of the 2.5 million full-time equivalent positions will be lost due to employers limiting employee hours in order to avoid paying penalties for not providing insurance?

Answer: As indicated in Appendix C of *The Budget and Economic Outlook: 2014 to 2024* (www.cbo.gov/publication/45010), CBO estimates that the ACA will reduce the total number of hours worked, on net, by about 1.5 percent to 2.0 percent from 2017 to 2024, almost entirely because workers will choose to supply less labor. The reason for the reduction in the supply of labor is that, for certain subsets of the population, the provisions of the ACA reduce the incentive to work.

For example, under the ACA, health insurance subsidies are provided to some people with low income and are phased out as their income rises; as a result, a portion of the added income from working more would be offset by a loss of some or all of the subsidies, which represents an implicit tax on earnings. Also, the ACA's subsidies effectively boost the income of recipients, leading some of them to decide that they can work less and still maintain or improve their standard of living. Therefore, some people will decide either not to work at all or to work fewer hours than they would otherwise, including some who will choose to retire earlier than they would otherwise and some who will work less themselves and instead rely more on a spouse's earnings. (Among the many other factors that influence decisions about working are income and payroll taxes and the cost of commuting and child care. Moreover, under current economic conditions, a substantial number of people who would like to work cannot find employment.)

CBO did not estimate a reduction in overall employment stemming from employers' limiting workers' hours to avoid paying penalties under the ACA. (CBO estimates that the employer penalty will reduce employment for other reasons, as discussed in Appendix C.) Over time, CBO expects, the penalty will be borne primarily by workers in the form of reduced wages or other compensation, at which point the penalty will have little effect on the demand for labor.

Nevertheless, some businesses may respond to the penalty by seeking to reduce or limit full-time staffing, to hire more part-time employees, or both. Those responses might occur because the penalty will apply only to businesses with 50 or more full-time-equivalent employees, and employers will be charged only for each full-time employee (not counting the first 30). People are generally considered full time under the ACA if they work 30 hours or more per week, on average, so employers have an incentive, for example, to shift from hiring a single 40-hour, full-time employee to hiring two, 20-hour part-time employees to avoid paying the penalty.

Such a change might or might not, on its own, reduce the total number of hours worked. For instance, a business that reduces hours for some workers might employ more people overall in order to maintain the total number of hours worked and total output—as in the example just offered. Moreover, adjustments of that sort can be costly for employers—because of the time and expense involved in dismissing full-time workers (which can result in the loss of workers with valuable job-specific skills); hiring new part-time workers (including the effort spent on interviewing and training); and, perhaps most important, changing work processes to accommodate a larger number of employees working shorter and more varied schedules. The extent to which people would be willing to work at more than one part-time job instead of a single full-time job also is unclear; although hourly wages for people in full-time jobs might be lower than those for part-time workers (once wages are adjusted to reflect the penalty), part-time workers would incur additional costs associated with holding more than one job at a time.

In CBO's judgment, there is no compelling evidence that the ACA has resulted in an increase in part-time employment. However, the agency will continue to monitor the situation, recognizing that the limited evidence currently available about shifts to part-time employment may not be very informative about the ultimate effects of the ACA because enforcement of the employer penalty has been delayed.

Question: Since your report was released [in February 2014], there has been much discussion about your findings that Obamacare would reduce full-time equivalent employment by about 2.3 million in 2021. But there has not been much discussion about the consequences to the budget of that loss in workforce. Such a dramatic reduction in the workforce would mean that there would be fewer Americans working and earning taxable income. As such, would you not expect a resulting decrease in both income and payroll tax revenue being collected by the government? If so, does your report incorporate those reductions in income and payroll tax revenue?

Answer: Yes, reductions in the amount of labor income earned in the economy will lead to reduced income and payroll tax revenues. CBO's baseline economic and revenue projections incorporate the agency's estimates of the effects of federal policy on economic activity and tax revenues. Hence, those projections account for the ACA, including its effects on labor markets. However, CBO has not attempted to isolate the revenue effect of the labor market changes attributable to the act from other factors that affect economic activity or tax revenues overall.

Question: A significant reduction in payroll tax revenue would also affect the solvency of the entitlement programs supported by that payroll tax revenue, correct? Does your report include projections on how the decline in full-time equivalent employment as a result of the Affordable Care Act would affect the solvency of Medicare and Social Security?

Answer: Yes, a reduction in payroll tax revenue will adversely affect the trust funds for Medicare and Social Security. Those effects are included in the projections discussed in Appendix F of *The Budget and Economic Outlook: 2014 to 2024* (www.cbo.gov/publication/45010).

CBO did not estimate separately how the decline in employment resulting from the ACA will affect the trust funds' exhaustion dates, but such an analysis would have to take into account several competing considerations. For example, one channel CBO identified for the decline in labor supply under the ACA is that people will retire earlier than they would in the absence of the ACA. If the people who retire sooner also start receiving Social Security benefits sooner, the program's spending would rise in the near term. But Social Security spending over their lifetime might not increase because monthly benefits are lower for people who choose to start receiving benefits earlier. More generally, declines in hours worked will reduce payroll tax revenues but also will tend to reduce the amount of Social Security benefits for which people qualify when they enroll in the program (those benefits are calculated on the basis of a recipient's earnings history), so the net effect on exhaustion dates is not immediately clear.

The decline in payroll tax revenues also will have an adverse effect on the exhaustion date of Medicare's Hospital Insurance Trust Fund, holding all else equal. However, the reduction in employment—compared with what would have occurred in the absence of the ACA—will reduce total gross domestic product, and somewhat fewer goods and services will be produced. If some of that reduction in employment and output comes in the health sector, it could reflect a reduction in the use of health care services and thus a reduction in spending on Medicare and other federal programs.

Question: Your testimony also suggested that the reduction in full-time equivalent employment would be felt most by lower-income households, as the incentives to leave the workforce would be greater for them. Would another consequence of taking more lower-income Americans out of the income earning and income tax paying workforce be to further narrow the income tax base of our country, and thus result in an even more progressive tax code, as the burden of supporting both discretionary and mandatory programs would continue to be concentrated on fewer households.

Answer: CBO estimates that the ACA will reduce aggregate labor compensation by roughly 1 percent over the 2017–2024 period, almost entirely because workers will choose to supply less labor. That decline will consist of some people not being employed and other people working fewer hours. The largest declines in labor supply will probably occur in households with below-average earnings because those households are most likely to be affected by the availability of subsidies for health insurance purchased through exchanges and by the expansion of eligibility for Medicaid.

In general, people who work less also pay less in taxes. Thus, the change in employment will probably decrease the share of taxes paid by lower-income households—one measure of the progressivity of the tax system. Under progressivity measures that compare shares of taxes paid with shares of before-tax income, the effect is more ambiguous, because taxes and before-tax income alike will decline for lower-wage households.

Senator Michael Enzi

Question: CBO estimates a 9 percent revenue increase for this year and projects the economy will also grow at a solid pace. I want to ensure that we all don't leave this hearing thinking that there is a direct line between increased revenues through tax hikes and increased economic growth. In that regard, to what extent do increased taxes that pull money out of the hands of both employers and employees have a negative impact on your economic growth projections?

Answer: In general, the Congressional Budget Office expects that higher tax payments have different short- and long-term effects. In the short term, they tend to reduce demand for goods and services and thereby to dampen economic activity. In contrast, economic growth in the longer-term is driven by supply factors, so longer-run effects of higher tax payments depend mainly on the influence of tax policy on the supply of labor and capital. Those effects could boost or diminish economic growth, depending on the specifics of tax policy. All else being equal, higher tax revenues decrease budget deficits and, thereby, government borrowing, thus boosting investment. Higher tax rates, however, decrease people's saving and work effort.

(For example, CBO estimates a dampening in the labor supply over time stemming from increases in effective marginal tax rates on labor income—the rates that apply to the last dollar of income—that are anticipated to arise from real bracket creep and from some provisions of the Affordable Care Act, or ACA). The net effect of higher taxes on economic activity depends on the balance of those forces.

Question: CBO's report should worry everyone in the room because it projects that the national debt will be $1.4 trillion higher in 2023 than CBO estimated last year, totaling 79 percent of GDP in 2024. Would taking action sooner rather than later to reduce our $17 trillion—and growing—debt impose less pain, both financially and economically, on the nation and taxpayers? For example, if we were to enact legislation like the Penny Plan (S. 547) that cuts spending by one percent across the board each year for several years to achieve a balanced budget, could the long-term benefits of such a plan—in terms of economic growth and fiscal sustainability—outweigh any potential short-term consequences?

Answer: Lawmakers face a difficult trade-off in deciding how quickly to carry out policy changes to reduce the growth of the federal debt. On the one hand, waiting to cut federal spending or raise taxes would lead to a greater accumulation of debt and would increase the size of the policy adjustments needed to put the budget on a sustainable course. That greater debt, together with the effects of the future policy adjustments, could lead to lower output and incomes and the provision of fewer government services in the long run, depending on the specific policy adjustments. On the other hand, implementing substantial spending cuts or tax increases soon would weaken the economy's current expansion and give people little time to plan for and adjust to those policy changes. The negative short-term effects that deficit reduction has on output and employment would be especially acute now because the Federal Reserve could not lower short-term interest rates from their current values, which are near zero, to offset the impact of changes in spending and tax policies. Even if policy changes were not implemented for a few years, however, making decisions about them soon would give people more time to plan and would tend to increase output and employment in the next few years by holding down longer-term interest rates, reducing uncertainty, and enhancing businesses' and consumers' confidence.

Question. When we talk about the debt, it's important to discuss the biggest drivers. CBO projects that spending on Medicaid is expected to double in about a decade, from $265 billion in fiscal year 2013 to $574 billion in fiscal year 2024. Medicare spending will not quite double in the same time, increasing from $585 billion in fiscal year 2013 to 1.087 trillion in fiscal year 2024. Social Security spending will increase from $808 billion to $1.506 trillion. Obamacare subsidies and related spending will increase from $1 billion to $166 billion. By 2024, CBO estimates that these programs will consume *half* of the federal budget.

How can we best address this unsustainable trajectory? What steps should Congress take now to address the spending curve for these programs?

Answer: To put the federal budget on a sustainable long-term path, lawmakers would need to make significant policy changes—allowing revenues to rise more than would occur under current law, reducing spending for large benefit programs to amounts below those currently projected, or adopting some combination of those methods. Changes in spending for other activities of the federal government could affect the magnitude of the changes needed in taxes or large benefit programs, but they would not eliminate the need for significant changes in at least one of those two parts of the budget. An approach that relied primarily on reductions in federal benefits would almost certainly require substantial cutbacks in spending for the major health care programs, Social Security, or both.

To assist the Congress in examining those complex policy issues, in December 2013 CBO published *Choices for Deficit Reduction: An Update* (www.cbo.gov/publication/44967), which presented a broad overview of the kinds of the changes policymakers could consider. Periodically, CBO also releases detailed compilations of policy options for the federal budget. The most recent in that series, *Options for Reducing the Deficit: 2014 to 2023* (November 2013, www.cbo.gov/budget-options/2013/44687), presents 103 options—they are not policy recommendations—that the government could pursue to reduce spending or increase federal revenues over the next decade. Among the options are 17 (in Chapters 2 and 5) that concern Social Security and the major health care programs. CBO estimated that the reductions in outlays from adopting those options would range from $11 billion to $606 billion over a 10-year period.

Question: CBO also decreased the number of people it estimates will get health insurance coverage as a result of Obamacare by 1 million people. What were the reasons for this decrease?

Answer: In April 2014, CBO and the staff of the Joint Committee on Taxation estimated that, relative to their May 2013 projections, about 1 million fewer people will obtain coverage through the insurance exchanges in 2014, about 2 million fewer people will enroll in Medicaid and the Children's Health Insurance Program in that year as a result of the ACA, and about 2 million fewer people will gain insurance coverage as a result of the ACA than they had estimated earlier (see *Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act,* www.cbo.gov/publication/45231). Those changes in the estimates for 2014 primarily reflect the significant technical problems that were encountered in the initial phases of the ACA's implementation. However, the estimated effect of the ACA on the number of people without health insurance in future years was substantially similar in the April 2014 projections and the May 2013 projections. CBO also provided information about enrollment projections and changes to those projections over time in Appendix B of *The Budget and Economic Outlook: 2014 to 2024* (www.cbo.gov/publication/45010).

Question: On the other hand, CBO now projects that more than 2 million people will stop looking for work or remove themselves from the labor supply because of the incentives in the health care law. This is an increase from CBO's previous estimate of 800,000. Why has this number increased?

Answer: As indicated in Appendix C of *The Budget and Economic Outlook: 2014 to 2024*, there are two significant reasons that CBO's estimates of the ACA's effects on hours worked and full-time-equivalent employment were considerably higher than the agency's previous estimates of those effects in 2010.

First, several factors led CBO to boost its estimate of the ACA's effect on aggregate labor compensation in the economy from a reduction of about 0.5 percent to a reduction of about 1 percent, the most important of which are these:

- More detailed analysis of the ACA led CBO to incorporate additional channels through which the law will affect labor supply. In particular, CBO's 2010 estimate did not include the effect on labor supply of the employer penalty or the resulting reduction in wages (as the cost of that penalty is passed on to workers), and it did not include the effect of encouraging part-year workers to delay returning to work in order to retain their insurance subsidies.

- Several studies published since 2010 concerning the labor market effects of the law or of similar policy initiatives—in particular, studies of past expansions or contractions in Medicaid eligibility for childless adults—have pointed to a larger effect on labor supply than CBO had estimated previously.

- A broad review of the tax literature has led to an upward revision in CBO's estimates of the impact of changes in after-tax wages on labor supply.

Second, CBO has increased its estimate of the effect on hours worked that could arise from a given reduction in aggregate compensation under the ACA. The earlier estimate reflected a simplifying assumption that affected workers would have average earnings—and so the percentage reductions in compensation and hours worked would be roughly the same. However, the people whose employment or hours worked will be most affected are expected to have below-average earnings. The effects of the exchange subsidies and of expanded Medicaid eligibility on the amount of labor supplied by lower-income people are likely to be greater than the effects of increased taxes on the amount of labor supplied by higher-income people. According to CBO's more detailed analysis, the 1 percent reduction in aggregate compensation that will occur as a result of the ACA corresponds to a reduction of about 1.5 percent to 2.0 percent in hours worked. Those figures translate to a reduction in full-time-equivalent employment of about 2.0 million in 2017, rising to about 2.5 million in 2024, compared with what would have occurred in the absence of the ACA.

Question: CBO also believes that this loss of labor will continue past 2024. How will the unemployment rate decrease if so many people stop looking for work due to the health care law?

Answer: The unemployment rate does not include people who have stopped looking for work; rather, it measures the number of people who are not employed but are actively looking for work as a percentage of the labor force (which consists of employed people and people who are not employed but are actively looking for work). The unemployment rate thus can decrease *because* some people stop looking for work and withdraw from the labor force. More generally, the unemployment rate in the longer term will be determined almost entirely by natural frictions in the economy that arise as employers expand and contract their workforces and as workers sort themselves into jobs. (For additional discussion of the factors that will affect the unemployment rate over the next decade, see CBO's report, *The Slow Recovery of the Labor Market*, February 2014, www.cbo.gov/publication/45011.)

Question: What are the long-term effects on the economy of entitlement programs that reduce the incentives for people to look for work?

Answer: The long-term effects on the economy of any particular program depend on the program's design and financing. However, there are some inherent trade-offs in designing programs that provide benefits to people with low incomes, because the provision of those benefits generally reduces the incentive to earn additional income. For example, subsidies that help lower-income people purchase an expensive product like health insurance must be relatively large in order to encourage a significant proportion of eligible people to enroll. Phasing out those subsidies with rising income so as to limit their total costs effectively raises people's marginal tax rates (the rates that apply to their last dollar of income), thus discouraging work. All else being equal, programs that discourage the supply of labor also lead to lower economic output because fewer hours worked implies less total production.

At the same time, programs that discourage the supply of labor by raising effective marginal tax rates can raise output through other channels. For example, programs that insulate households from unexpected changes in income may encourage workers to be more entrepreneurial and innovative, leading to advancements in technology and business processes that increase economic output. In addition, programs that improve people's health or enhance their education might increase those people's productivity in the labor force.

Question: CBO projects that interest [costs] will climb over the next decade—from $233 billion in fiscal year 2013 to $880 billion in fiscal year 2024, which is an increase of 278 percent. At that point, we'll be spending more on interest than we spend on Medicaid, defense, or nondefense discretionary spending. How confident are you in CBO's interest rate projections? What happens if interest rates are higher than projected?

Answer: Future interest rate movements are inherently uncertain and many developments could cause rates to diverge from CBO's projections, which are intended to represent the midpoint of a distribution of possible outcomes. Thus, in CBO's judgment, interest rates are as likely to be lower than those the agency projects as they are likely to be higher. Moreover, CBO's projections are broadly consistent with the historical relationships among interest rates, inflation, federal borrowing, the gap between actual and potential (maximum sustainable) gross domestic product (GDP), and the factors that underlie the growth of potential GDP.

The effects of higher interest rates on the federal budget would depend on whether the increase was caused by higher real interest rates (that is, rates adjusted to exclude the effects of inflation) or by higher inflation. CBO estimates that if real interest rates were 1 percentage point higher than expected, the cumulative deficit from 2015 to 2024 would be $1.5 trillion more than it currently projects. However, if inflation was 1 percentage point higher than expected, the cumulative deficit in that period would be $0.8 trillion higher than currently forecast; that effect would include significant but partially offsetting changes in tax revenues and spending for federal programs as well as changes in interest payments. Those estimates do not account for the effects on the federal budget of other differences in economic conditions that would probably accompany higher real interest rates or higher inflation.

Senator Ron Johnson

Question. On March 14, 2013, the Senate Budget Committee voted to approve inclusion of section 501 of the budget resolution, S. Con. Res. 8, ultimately passed by the Senate as a whole:

> When the Congressional Budget Office releases its annual Update to the Budget and Economic Outlook, the Congressional Budget Office shall report changes in direct spending and revenue associated with the Patient Protection and Affordable Care Act (Public Law 111-48) and the Health Care and Education Reconciliation Act of 2010 (Public Law 111-152), including the net impact on the deficit, both with on-budget and off-budget effects. The information shall be similar to that provided in Table 2 of the Congressional Budget Office's March 20, 2010, estimate of the budgetary effects of the Health Care and Education Reconciliation Act of 2010 and the Patient Protection and Affordable Care Act (PPACA), as passed by the Senate.

As this provision was supported by the majority of Senators in passage of the budget resolution, please provide an update on the work that your office has done to provide the requested information, rather than the more limited analysis of coverage-only provisions of the health care law. It is important to account for all spending attributable to the health care law.

Answer: In March 2010, just before the Affordable Care Act (ACA) was enacted, the Congressional Budget Office and the staff of the Joint Committee on Taxation (JCT) estimated that changes in direct spending and revenues under the legislation would reduce federal budget deficits by $124 billion over the 2010–2019 period and by roughly one-half of 1 percent of gross domestic product (GDP) over the ensuing decade (see the cost estimate for H.R. 4872, Reconciliation Act of 2010 [Final Health Care Legislation], March 20, 2010, www.cbo.gov/publication/21351).[1] In the four years since those estimates were produced, there have been significant changes in the economic outlook, in the health care and health care financing systems, in CBO and JCT's estimating methodologies, in provisions of law that relate to the ACA, and in the implementation of the ACA as guided by judicial decisions and administrative actions. All of those changes could affect the impact of the ACA on budget deficits, potentially in significant ways.

In response to the request for an estimate of the net impact on the deficit of the ACA, the following points are important:

- Based on revisions to the estimated budgetary effects of aspects of the ACA that CBO and JCT have analyzed, the agencies have no reason to think that their initial assessment that the ACA would reduce budget deficits was incorrect.
- However, the incremental budgetary effects of many provisions of the ACA are embedded in CBO's baseline projections for preexisting programs and tax revenues, and they cannot be separately identified using the agencies' normal estimating procedures—which are generally based on data that reflect all of the provisions of current law, including the ACA.[2]

1. The letter that reported that cost estimate showed projections of the effects of enacting both the Patient Protection and Affordable Care Act (PPACA) as passed by the Senate (H.R. 3590) and the Health Care and Education Reconciliation Act of 2010 (H.R. 4872). The latter legislation included provisions related to education. CBO uses the term Affordable Care Act to refer to PPACA (Public Law 111-148); the health care provisions of the Reconciliation Act (P.L. 111-152); and the effects of subsequent judicial decisions, statutory changes, and administrative actions. CBO also estimated that the Internal Revenue Service and the Department of Health and Human Services would incur costs of between $5 billion and $10 billion each over 10 years to carry out their responsibilities for implementing the legislation; those costs would be funded through discretionary appropriations.

   For JCT's estimates of the effects of most of the tax provisions in the ACA, see Joint Committee on Taxation, *Estimated Revenue Effects of the Amendment in the Nature of a Substitute to H.R. 4872, the "Reconciliation Act of 2010," in Combination with the Revenue Effects of H.R. 3590, the "Patient Protection and Affordable Care Act ('PPACA')," as Passed by the Senate, and Scheduled for Consideration by the House Committee on Rules on March 20, 2010,* JCX-17-10 (March 20, 2010), http://go.usa.gov/8tNQ.

2. CBO made this point shortly after the enactment of the ACA when the agency first incorporated that legislation into its baseline projections. See *The Budget and Economic Outlook: An Update,* August 2010, Box 1-1, p. 6, www.cbo.gov/publication/21670. See also *Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act,* April 2014, footnote 3, p. 1, www.cbo.gov/publication/45231.

- A retrospective analysis of the effects of a current law is very different from a cost estimate for proposed legislation, particularly because it requires formulation of a counterfactual benchmark representing what would have happened if the law had not been enacted—a challenging undertaking that is beyond the scope of CBO's usual analyses.

- Therefore, CBO and JCT cannot readily provide a retrospective analysis of the ACA that is analogous to the cost estimate provided by the agencies in 2010. That problem is not unique to the ACA but is common to most legislation that affects preexisting federal programs.

Consistent with their statutory responsibilities, CBO and JCT can continue to estimate the effects of prospective legislative actions, such as proposals to modify provisions of the ACA or to repeal the law entirely. Because of the complexities involved in implementing a repeal of the ACA, the budgetary effects of repealing the act at this time would not simply be the opposite of the budgetary effects of the ACA itself.

Identifying the Budgetary Effects of the Affordable Care Act. The principal obstacle to producing a new estimate for the ACA is that CBO's cost estimates represent the budgetary effects of legislation relative to the current-law baseline. Because the ACA is part of current law, its budgetary effects would now need to be estimated relative to a counterfactual benchmark that excluded the ACA. CBO does not construct such a counterfactual benchmark for all of the ACA, and attempting to do so would raise significant challenges.

Under CBO and JCT's normal procedures, the agencies still produce separate estimates of the effects of *the ACA's provisions related to insurance coverage,* in part because those provisions established entirely new programs or components of programs and in part because those provisions are mostly being implemented in 2014 or later. In particular, the subsidies to be provided through insurance exchanges and the costs of expanded Medicaid eligibility are not part of the flow of budget data for preexisting programs. Hence, their budgetary consequences can be isolated and reassessed, and the counterfactual—what would have happened to those components of the budget in the absence of the ACA—is clear: Those amounts would have been zero. CBO and JCT have published updated estimates of the effects of those provisions numerous times since 2010 (see *Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act, April 2014,* www.cbo.gov/publication/45231). Over time, the effects of the coverage provisions that are not separately identified in flows of budgetary data will become increasingly difficult to isolate.

By contrast, *the ACA's provisions that are not related to insurance coverage* largely modified existing federal programs and made changes to the existing tax code, so CBO and JCT cannot identify the incremental effects of many of those provisions. Consider the ACA's substantial changes to the Medicare program, many of which have taken effect during the past four years. CBO does not produce baseline projections for Medicare that are based on the program's statutes as of February 2010 to which the current baseline projections can then be compared. Moreover, the basis on which the agency could try to construct such a counterfactual baseline is unclear. With respect to the way Medicare pays certain providers, for example, CBO cannot determine the program rules and payment rates that the Centers for Medicare & Medicaid Services would have established over the past four years in the absence of the ACA. Moreover, CBO cannot determine how those program rules and payment rates under prior law would have affected the behavior of beneficiaries and providers—which in turn affects what federal spending would have been in the absence of the ACA. The basis for developing a counterfactual receipts baseline is also unclear because JCT cannot determine how taxpayers would have organized their financial affairs over the past four years in the absence of the ACA.

That problem is by no means unique to the ACA, nor is it related to developments regarding the implementation of the ACA that have surprised CBO and JCT. Indeed, judicial decisions and numerous administrative actions have caused the ACA's provisions related to insurance coverage to be implemented differently than CBO and JCT had initially expected, and, as noted above, the agencies continue to update their estimates of the budgetary effects of those provisions. Rather, the problem is common to all legislation that changes existing federal programs or tax provisions with results that cannot be clearly distinguished from what would have occurred under previous law.

Last year, in response to a question from a Member of Congress about whether CBO goes back to review its estimates of legislation in order to improve the accuracy of its methods ("The Accuracy of CBO's Budget Projections," blog entry, March 25, 2013, www.cbo.gov/publication/44017), CBO wrote:

> CBO routinely monitors the budgetary effects of enacted legislation to help improve projections of spending and receipts under current law, as well as to improve cost estimates for new legislative proposals. However, it is often difficult or impossible to determine, even in retrospect, the incremental impact on the budget of a particular piece of legislation …
>
> The prescription drug program known as Medicare Part D is a relatively rare example in which actual spending can be directly compared to the projections contained in the CBO cost estimate. In most cases, legislation modifies existing programs; it is often not possible after enactment of such legislation to determine how spending for a modified program has changed specifically as a result of that legislation, or how much of future spending would have occurred even without the change in law. In contrast, the legislation that created Part D established a new component of Medicare with a system of new benefit payments, associated administrative costs, and payments from premiums and states. The actual net cost of Medicare Part D has been much lower than CBO originally projected.[3]

Moreover, determining the budgetary impact of previously enacted legislation that affects ongoing spending programs or tax receipts becomes more difficult over time as the conditions that would have prevailed in the absence of the original legislation become increasingly uncertain. Thus, in its estimate with JCT of the effects of a proposal to repeal the ACA in July 2012, CBO wrote: "Separating the incremental effects of the provisions in the ACA that affect spending for ongoing programs and revenue streams becomes more uncertain as the time since enactment grows."[4]

3. However, CBO cannot assess the accuracy of its estimate of the entire Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L. 108-173) because parts of that act modified existing programs; CBO is able to assess only the accuracy of its estimate of the cost of the provisions that established the prescription drug benefit under Medicare Part D.

4. See the letter to the Honorable John Boehner providing an estimate for H.R. 6079, the Repeal of Obamacare Act, July 24, 2012, p. 7, www.cbo.gov/publication/43471.

The largest changes in the estimated effects of the ACA during the past four years that CBO and JCT have separately identified are those associated with the estimated effects of the ACA's insurance coverage provisions and the elimination of the Community Living Assistance Services and Supports (CLASS) program. CBO and JCT's latest estimate of the cost of the coverage provisions is $100 billion lower than the March 2010 estimate for the period from 2014 through 2019 (2019 was the last year of the 10-year budget window used in the original estimate). CBO originally estimated that the CLASS program would yield federal budgetary savings of $70 billion through 2019 (and would have a budgetary cost in later years); however, the Secretary of Health and Human Services announced in 2011 that she did not "see a viable path forward for CLASS implementation." Combining the reduction in estimated cost of $100 billion and the loss of estimated savings of $70 billion with the original estimate that the ACA would reduce deficits by $124 billion over the 2010–2019 period yields a projected reduction in deficits of more than $150 billion over that period.

The costs and savings that can be attributed to other provisions of the ACA have undoubtedly been affected by many developments in the four years since the law was enacted. Economic conditions during the past four years and CBO's projections of the economy in coming years are different from what CBO projected several years ago. The health care and health care financing systems have continued to evolve, and health care spending—both in federal programs and in the private sector—has been below the amounts that CBO expected in early 2010. The implementation of the ACA has been guided by numerous regulations, some of which have differed from what CBO and JCT anticipated in their original estimates. For the reasons discussed above, however, CBO and JCT can no longer assess the budgetary effects of all of the provisions of the ACA without constructing a counterfactual benchmark.

Attempting to construct a counterfactual benchmark for the budget that excluded the ACA would raise significant challenges and would go beyond CBO's traditional role in the budget process. In particular, given the number and complexity of the changes to Medicare under the ACA, as well as the lack of data about what would have happened in Medicare without the ACA, creating a counterfactual benchmark for Medicare would be a very complicated task that would take months of work, and the resulting benchmark would be hugely uncertain and speculative. For example, constructing such a benchmark would require CBO to assess precisely what role the ACA has played in the slowdown in Medicare spending, and the appropriate analytical approach for making such an assessment is unclear. Moreover, the slowdown in Medicare spending has been part of a broader slowdown in national health care spending, and the effects, if any, of the ACA on that broader slowdown also would need to be taken into account in trying to construct a counterfactual benchmark.

Such challenges are why CBO traditionally has not produced retrospective estimates of the budgetary effects of enacted legislation but has produced cost estimates only for forward-looking legislative proposals relative to the current-law baseline. In that way, the agency has focused on its ongoing responsibilities to analyze pending legislation and to build models and other tools in preparation for analyzing future legislation.

Estimating the Budgetary Effects of Repealing the Affordable Care Act. Consistent with their statutory responsibilities, CBO and JCT can continue to estimate the effects of legislative proposals to modify provisions of the ACA or to repeal the law entirely. However, the agencies could not produce useful, timely estimates for proposals to repeal the ACA unless those proposals specified what would take the place of the law in areas where it modified preexisting programs and where those modifications have been under way during the four years since the law was enacted (in some cases, with further legislative modifications).

Consider again the ACA's changes to Medicare. In its estimate of the effects of a proposal to repeal the ACA in July 2012, CBO wrote: "[The proposal] does not specify how to implement the requirement that the provisions of law modified by the ACA be restored as if the ACA had never been enacted—for example, with regard to Medicare's payment rules and certain changes to the Internal Revenue Code that are already in operation. Because of that ambiguity, H.R. 6079 would cede considerable discretion to the executive branch to implement its provisions."[5]

That challenge is much greater two years later and will become still greater as more time passes. Because the ACA's changes to Medicare's payment rules have now been in place for up to four years, estimating the effects of a proposal that sought to repeal those provisions and largely delegated to the executive branch the task of determining what specific policies to implement instead would involve two steps: first, assessing what policies the executive branch would implement under such broad authority, and second, estimating the budgetary effects of those policies. In some cases, those policies might be quite similar to ones that would have been adopted under the law prior to the ACA; in other cases, those policies might be quite different from prior policies because of changes in the health care or health care financing systems that have occurred because of the ACA.

Given those challenges, projecting spending for Medicare under a proposal to repeal the ACA would be much more complicated and time-consuming—and the result much more uncertain and speculative—if the legislation did not specify an alternative set of policies to take the place of those established by the ACA. Similar considerations would apply to proposals to repeal many other provisions of the ACA, which have affected a wide range of ongoing programs.

Whether a proposal to repeal the ACA specified alternative policies or not, its budgetary effects would not simply be the opposite of the budgetary effects of the ACA itself. In its estimate with JCT of the effects of a proposal to repeal the ACA in July 2012, CBO wrote: "[We] also anticipate that some of the changes induced by the ACA in how public and private health insurance and health care programs are administered would be sustained" even if the law was repealed.[6] Two years later, that conclusion would probably apply even more broadly.

Question: On March 14, 2013, the Senate Budget Committee voted to approve the inclusion of section 502 of the budget resolution, S. Con. Res. 8, ultimately passed by the Senate as a whole:

> When the Congressional Budget Office releases its annual update to the Budget and Economic Outlook, the Congressional Budget Office shall provide an analysis of the budgetary effects of 30 percent, 50 percent, and 100 percent of Americans losing employer sponsored health insurance and accessing coverage through Federal or State exchanges.

5. Letter concerning H.R. 6079, p. 7, www.cbo.gov/publication/43471.

6. Letter concerning H.R. 6079, p. 8, www.cbo.gov/publication/43471.

The sensitivity analysis conducted by CBO in March 2012 does not reflect the significant changes to the law that have been made since it was compiled, including the July 2012 Supreme Court decision on Medicaid participation by the states, along with changes that CBO has included in other analyses, including the delay of various mandates and tax policy changes.

As this provision was supported by the majority of senators in passage of the budget resolution, please provide an update on the work that your office has done to provide the requested information.

Answer: In March 2012, CBO, along with the Joint Committee on Taxation (JCT), published *CBO and JCT's Estimates of the Effects of the Affordable Care Act on the Number of People Obtaining Employment-Based Health Insurance* (www.cbo.gov/publication/43082), which presented the results of those agencies' detailed analyses of the sensitivity of their estimates to variations in several underlying factors. At the time, the baseline estimates of the effects of the ACA's insurance coverage provisions indicated that between 3 million and 5 million fewer people, on net, will obtain employment-based coverage each year from 2019 through 2022 than would have done so under prior law. CBO and JCT presented four alternative scenarios, encompassing a wide range of variation in employers' behavior. Under those scenarios, the agencies estimated that enactment of the ACA would change the number of people obtaining employment-based health insurance in 2019 by amounts that ranged from a reduction of 20 million to a gain of 3 million relative to what would have occurred otherwise—compared with a reduction of 5 million people in the baseline projection for that year. Those estimated changes were relative to an estimate of 161 million people obtaining such coverage in the absence of the ACA.

The budgetary effects of the four scenarios ranged from an increase of $45 billion in the net cost of the ACA's coverage provisions to a decrease of $82 billion in those costs, measured over the 2012–2022 period and compared with costs under the baseline that totaled about $1.3 trillion. In CBO's assessment, changes in the act's implementation and in CBO and JCT's estimating approach since that report was published have had little effect on the possible range of estimated budgetary effects associated with different offerings of employment-based coverage. Therefore, CBO concludes that the main findings of that report—that a sharp decline in employment-based health insurance as a result of the ACA is unlikely, and, if it was to occur, would not dramatically increase the cost of the ACA—still hold.

Question: As the CBO Long-Term Budget Outlook is an important and trustworthy implement for Budget Committee members in judging fiscal policy, please provide the following information based on its findings:

A version of Tab 1 of the Supplemental Data of the Long-Term Budget Outlook, "Summary Data for the Extended Baseline," with all values denominated in nominal dollars where they are now presented as a percentage of GDP.

A version of Tab 6 of the Supplemental Data of the Long-Term Budget Outlook, "Summary Data for the Extended Alternative Fiscal Scenario," with all values denominated in nominal dollars where they are now presented as percentages of GDP.

A version of Tab 1 of the Supplemental Data of the 2013 Long-Term Projections for Social Security: Additional Information, of Dec. 17, 2013, "Social Security Tax Revenues and Outlays, With Scheduled Benefits," with all values denominated in nominal dollars where they are now presented as percentages of taxable payroll.

Answer: CBO does not present long-term estimates in nominal dollars because, in the agency's judgment, such a presentation can be misleading. The key problem is that a dollar today means something very different from a dollar in the distant future, for at least two reasons. First, the cumulative effect of even low inflation over a long period can be quite large, so a dollar amount in the distant future will have much lower value than the same dollar amount today. For example, if inflation averaged 2 percent a year, the purchasing power of a dollar in 2085 would be a quarter of that in 2015. Second, the population, the economy, and people's incomes will all grow substantially over time, so a dollar amount in the distant future will be much smaller relative to the size of the economy or a person's income than the same dollar amount today. CBO projects that nominal gross domestic product (GDP) in 2085 will be roughly 20 times greater than nominal GDP in 2015, reflecting both inflation and inflation-adjusted economic growth over the next 70 years. Therefore, a dollar amount of federal spending or taxes that represented, say, 20 percent of GDP in 2015 would represent only about 1 percent of GDP in 2085.

Nevertheless, CBO's website provides long-term projections of GDP in nominal dollars as a help to those who might want to make calculations of nominal budgetary amounts. In the supplemental data accompanying *The 2013 Long-Term Budget Outlook* (September 2013, www.cbo.gov/publication/45308), column I of tab 2 provides nominal GDP projections through 2088; those amounts can be multiplied by any of the percentages of GDP shown in that report or provided in the supplemental data for that report to produce nominal dollar amounts.

Senator Tim Kaine

Question: For the record, I would like to ask you to submit an answer to this question later, and that is, if over the next 10 years, instead of an 18.1 percent revenue to GDP we had a 19.5 percent, or whatever the average is of the 5 years when we balanced it, we had a 19.5 percent revenue to GDP, what would that do to the deficit projections over the next 10 years? And what would it do the projections of annual interest payments over the next 10 years? Now, I know that involves some assumptions that you could just up it to 19.5 without having cross-wind economic effects. But I just would like to know mathematically—because I believe what we have is not just a spending problem but a revenue problem. I would like to know mathematically, if we had revenue at 19.5 percent of GDP, what would that do to deficit projections and interest expense over the 2014 to 2024 period?

Answer: If revenues were to equal 19.5 percent of gross domestic product (GDP) from 2015 through 2024, rather than averaging 18.1 percent as projected in the Congressional Budget Office's February 2014 baseline, projected deficits would total about $4.2 trillion (or 1.9 percent of GDP) over the 2015–2024 period, compared with about $7.9 trillion (or 3.5 percent of GDP) projected in CBO's February 2014 baseline—holding all else equal. That difference in deficits of about $3.7 trillion constitutes roughly $3.0 trillion of additional revenue and roughly $600 billion of reduced debt service. However, the increase in revenues contemplated in this scenario would have a number of economic effects, through its impact on people's incomes, on federal deficits and debt, and potentially on people's incentives to work and save (depending on the specific changes in revenue policy that were made). Those economic effects would have feedback effects on the budget, and those feedback effects are not incorporated in the numbers presented here.

Question: I would be interested over the course of 2014 to 2024 as to what is the projection of tax expenditures as a percentage of GDP and how that would change over the 10-year period.

Answer: On the basis of estimates prepared by the staff of the Joint Committee on Taxation, CBO projects that, under current law, all tax expenditures in the individual and corporate income tax systems will total roughly 8.2 percent of GDP in fiscal year 2014, if their effects on social insurance taxes as well as on corporate and individual income taxes are included. CBO estimates that the comparable total for 2017 is 9.0 percent. The agency has not estimated the magnitude of all tax expenditures beyond 2017, but the percentage of GDP for the years 2018 to 2024 is probably similar to the percentage estimated for 2017. By comparison, CBO projects that total federal tax revenue will be close to 18 percent of GDP during the coming decade under current law.

Senator Angus King

Question: All agree that the most effective way to ameliorate the long-term deficit and debt problem is rigorous economic growth. Given this fact, which path is more conducive to such growth: selective federal investments or a continued policy of austerity defined as fixed revenues and cuts, either in discretionary or mandatory spending?

Answer: Both sound federal investment and reductions in federal deficits and debt can boost economic growth in the long term. Their relative effectiveness in achieving that goal would depend on the specifics of the federal investments or deficit-reducing policy changes that were adopted. In the short term, reducing federal deficits and debt would tend to lower economic growth, whereas increasing federal investment would tend to raise it.

Most federal investment for nondefense purposes contributes to the economy in the long term by improving the private sector's ability to invent, produce, and distribute goods and services. In contrast, federal investment for defense purposes contributes to the production of weapon systems and other defense goods but does not typically contribute to future nondefense output because much of it is narrowly focused on defense; the exception is the small portion of defense investment that funds basic and applied research.

Federal nondefense investment, done wisely, can contribute to private-sector productivity in various ways. Without public highways, for example, the cost to the trucking industry of delivering goods would be much higher; without government research and development (R&D), the Internet and whole segments of the economy would not exist; if not for receiving a public education (funded in part by federal spending), many workers would earn lower wages. In the view of the Congressional Budget Office, the government has made higher productivity possible in all of those cases by making investments that the private sector would not have made on its own or would have made in smaller amounts than their broad public benefits would justify.

The result of that higher productivity is a larger economy in the long term, all else being equal. However, the magnitude of the increase in economic output that would result from an increase in federal investment is highly uncertain. Moreover, the factors that contribute to the uncertainty present important considerations for policymakers who face decisions about how—and how much—the federal government should invest.

One factor contributing to that uncertainty is that federal investments differ greatly. The return on investments in transportation infrastructure, education, or research may be quite different, and the returns on investments of varied sorts within those broad categories may be quite different as well. Estimating those returns is difficult because it is challenging to ascribe particular outcomes to specific investments. Scientific and technological discoveries often build on past R&D, so it is difficult to determine what proportion of a new product results from any given investment. Similarly, workers' skills are the product of education funded not only by the federal government but also by state and local governments, the private sector, and the workers and their families. Moreover, realizing the benefits of federal investment may take many years, and the timing varies for different types of investment. A new highway can improve transportation as soon as it is built, but realizing the benefits of basic research or elementary education can take far longer, thus complicating the task of identifying those benefits.

In addition, the benefits of federal investment are unlikely to be distributed evenly. A business that is near a highway will probably enjoy greater returns from that highway than will a business that is farther away. Recipients of federal grants for R&D may acquire patents on their work, and although products and innovations based on those patents may benefit consumers, they also may earn returns for the patent owners that are not shared with the country as a whole.

Federal investment can have some negative effects as well. It can discourage investment by private entities or by state and local governments if it raises the price of investment goods. If that happens, and if the discouraged investment would have had positive economic returns, then the overall returns on the federal investment are lower. Furthermore, state and local governments may use federal funding for investments that they would otherwise have paid for with their own funds. (In some cases, however, federal investment can increase state and local investment, because some federal grant programs require investment by state and local governments as well.)

Reductions in federal deficits and debt will tend to increase output in the long term but decrease it in the short term, especially under current economic conditions. In the short term, policy changes that decreased federal spending or raised taxes (and thus decreased budget deficits) would generally reduce demand, thereby lowering output and employment relative to what would occur otherwise. That effect would tend to be especially strong under conditions such as those currently prevailing in the United States, with output so far below its potential (maximum sustainable) level that the Federal Reserve is keeping short-term interest rates near zero and would not be expected to adjust those rates to offset the effects of changes in federal spending and taxes.

By contrast, in the long term, policy changes that decreased budget deficits would generally increase national saving and investment, thereby raising output and income relative to what would occur otherwise. However, the economic effects would depend on the specific changes in tax and spending policies as well as on the magnitude of the change in deficits. In particular, the effects of policy changes on people's incentives to work and save and on federal investment could affect the economic consequences of any given change in deficits.

Thus, in the short term, economic output is likely to be higher if federal investment is increased than if total federal spending is reduced. The relative effects on output of those two approaches in the long term would depend on the specifics of the policies.

Policy changes that differ over time are possible, as are combinations of policies. For example, if policymakers wanted to raise gross domestic product both in the near term and in later years relative to projections under current law, they could devise a combination of policies that increased deficits during the first few years and decreased them by a greater cumulative amount thereafter (ultimately leading to less debt than would occur under current law).

Question: If selective federal investments are the preferred course, what are the most effective such investments (workforce training, education, infrastructure, others)?

Answer: Different federal investments—in areas such as education, including workforce training; R&D; and physical capital, including roads and other infrastructure—can promote long-term economic growth in different ways. In particular, education spending can develop a skilled workforce, R&D spending can prompt innovation, and spending on physical capital projects can bolster commerce. Such spending by the federal government can boost private-sector productivity by funding investments that the private sector would not have made on its own or would have made in smaller amounts than the resulting broad public benefits would justify. Depending on the type of investment, the benefits would be realized in different ways in the economy—for example, benefits might be realized sooner for some types of investment and later for others. A new highway can improve transportation as soon as it is built, but it may take longer to realize the benefits of investments in basic scientific research or elementary education.

The size and nature of the returns on the different types of investment are subject to considerable uncertainty, and the wide range of returns for any type of investment precludes saying which type is most effective. Realizing the potential gains from federal investments depends on successfully identifying the particular investments for which the benefits to society are expected to outweigh the costs.

Question: Assuming steady-state revenues—meaning that such investments would either increase short-term deficits or further crowd out current spending—which would be more damaging to economic growth: larger deficits, tax increases, or further cuts in current spending levels?

Answer: If policymakers decided to increase federal investments, they could finance those investments through reductions in other federal spending, increases in federal revenues, additional federal borrowing (that is, larger deficits), or some combination of those approaches. The effects on economic growth of those different approaches would differ over different time horizons and would depend on the specifics of the changes in federal revenues or spending that would be made.

In the short term, financing greater federal investment through additional federal borrowing would generally have a more positive effect on economic growth than would financing that investment through cuts in other spending or increases in revenues. Policy changes that increased budget deficits would generally raise overall demand in the economy, thereby bolstering output and employment in the short run relative to what would occur otherwise. Cuts in other federal spending or increases in revenues would at least blunt the increase in demand from the greater federal investment and might fully offset it or more than offset it, depending on the specific changes in policy. As noted above, the effect of additional aggregate demand stemming from changes in fiscal policy would tend to be especially strong under conditions such as those currently prevailing in the United States, with output so far below its potential level that the Federal Reserve is keeping short-term interest rates near zero and would not be expected to raise those rates to offset the effects of greater federal deficits.

By contrast, in the long term, financing greater federal investment through additional federal borrowing would generally have a more *negative* effect on economic growth than would financing that investment through cuts in other spending or increases in revenues. That result holds because policy changes that raised budget deficits would generally lower national saving and investment, thereby lowering output and income relative to what would occur otherwise. However, cuts in other spending or increases in revenues could also alter people's incentives to work and save, which would affect output and income as well.

Question: What is the lag time in terms of the increase in interest rates and effects on interest charges? In other words, if all of our debt today was locked in 10 years at 2 percent, an interest rate change next year would have no effect, as I see it, and I am just trying to understand what components of the debt are locked in and what are short term? Because I am concerned about this interest rate increase and the impact on the budget and the crowding out of other priorities, but there is a time lag thing here, isn't there?

Answer: The U.S. Treasury issues securities with various maturities to finance government activities. At the end of fiscal year 2013, 13 percent of its marketable securities were bills with a maturity of less than a year, 67 percent were notes with a maturity of 2 to 10 years, 12 percent were bonds with a maturity of 30 years, and 8 percent were inflation-protected securities with a maturity of 5 to 30 years. CBO projects that interest rates will rise over the next few years and that such increases will affect maturing bills quickly and other types of securities more gradually. About two-thirds of the government's marketable debt outstanding at the end of fiscal year 2013 is due to mature in the next 5 years.

Because of that maturity structure, an increase in interest rates would have a growing effect on federal interest payments over time. In Appendix D of *The Budget and Economic Outlook: 2014 to 2024* (www.cbo.gov/publication/45010), CBO estimated that an immediate increase in interest rates of 1 percentage point would raise interest payments on the debt that would have been issued in the absence of that increase by $38 billion in fiscal year 2015 and by $174 billion in fiscal year 2024. (Moreover, those additional interest payments would lead to the issuance of additional debt—unless changes were made to spending or tax policies—that also would receive interest payments; those payments would amount to a further $1 billion in 2015 and $72 billion in 2024.)