APPENDIX

C

# Labor Market Effects of the Affordable Care Act: Updated Estimates

## Overview

The baseline economic projections developed by the Congressional Budget Office (CBO) incorporate the agency's estimates of the future effects of federal policies under current law. The agency updates those projections regularly to account for new information and analysis regarding federal fiscal policies and many other influences on the economy. In preparing economic projections for the February 2014 baseline, CBO has updated its estimates of the effects of the Affordable Care Act (ACA) on labor markets.[1]

The ACA includes a range of provisions that will take full effect over the next several years and that will influence the supply of and demand for labor through various channels. For example, some provisions will raise effective tax rates on earnings from labor and thus will reduce the amount of labor that some workers choose to supply. In particular, the health insurance subsidies that the act provides to some people will be phased out as their income rises—creating an implicit tax on additional earnings—whereas for other people, the act imposes higher taxes on labor income directly. The ACA also will exert conflicting pressures on the quantity of labor that employers demand, primarily during the next few years.

### How Much Will the ACA Reduce Employment in the Longer Term?

The ACA's largest impact on labor markets will probably occur after 2016, once its major provisions have taken full effect and overall economic output nears its maximum sustainable level. CBO estimates that the ACA will reduce the total number of hours worked, on net, by about 1.5 percent to 2.0 percent during the period from 2017 to 2024, 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. Because the largest declines in labor supply will probably occur among lower-wage workers, the reduction in aggregate compensation (wages, salaries, and fringe benefits) and the impact on the overall economy will be proportionally smaller than the reduction in hours worked. Specifically, CBO estimates that the ACA 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. Although such effects are likely to continue after 2024 (the end of the current 10-year budget window), CBO has not estimated their magnitude or duration over a longer period.

The reduction in CBO's projections of hours worked represents a decline in the number of full-time-equivalent workers of about 2.0 million in 2017, rising to about 2.5 million in 2024. Although CBO projects that total employment (and compensation) will increase over the coming decade, that increase will be smaller than it would have been in the absence of the ACA. The decline in full-time-equivalent employment stemming from the ACA will consist of some people not being employed at all and other people working fewer hours; however, CBO has not tried to quantify those two components of the overall effect. The estimated reduction stems almost entirely from a net decline in the amount of labor that workers choose to supply, rather than from a net drop in businesses' demand for labor, so it will appear almost entirely as a reduction in labor force participation and in hours worked relative to what would have occurred otherwise

1. As referred to in this report, the Affordable Care Act comprises the Patient Protection and Affordable Care Act (Public Law 111-148); the health care provisions of the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152); and the effects of subsequent judicial decisions, statutory changes, and administrative actions.

rather than as an increase in unemployment (that is, more workers seeking but not finding jobs) or underemployment (such as part-time workers who would prefer to work more hours per week).

CBO's estimate that the ACA will reduce employment reflects some of the inherent trade-offs involved in designing such legislation. Subsidies that help lower-income people purchase an expensive product like health insurance must be relatively large to encourage a significant proportion of eligible people to enroll. If those subsidies are phased out with rising income in order to limit their total costs, the phaseout effectively raises people's marginal tax rates (the tax rates applying to their last dollar of income), thus discouraging work. In addition, if the subsidies are financed at least in part by higher taxes, those taxes will further discourage work or create other economic distortions, depending on how the taxes are designed. Alternatively, if subsidies are not phased out or eliminated with rising income, then the increase in taxes required to finance the subsidies would be much larger.

CBO's estimate of the ACA's impact on labor markets is subject to substantial uncertainty, which arises in part because many of the ACA's provisions have never been implemented on such a broad scale and in part because available estimates of many key responses vary considerably. CBO seeks to provide estimates that lie in the middle of the distribution of potential outcomes, but the actual effects could differ notably from those estimates. For example, if fewer people obtain subsidized insurance coverage through exchanges than CBO expects, then the effects of the ACA on employment would be smaller than CBO estimates in this report. Alternatively, if more people obtain subsidized coverage through exchanges, then the impact on the labor market would be larger.

### Why Will Those Reductions Be Smaller in the Short Term?

CBO estimates that the ACA will cause smaller declines in employment over the 2014–2016 period than in later years, for three reasons. First, fewer people will receive subsidies through health insurance exchanges in that period, so fewer people will face the implicit tax that results when higher earnings reduce those subsidies. Second, CBO expects the unemployment rate to remain higher than normal over the next few years, so more people will be applying for each available job—meaning that if some people seek to work less, other applicants will be readily available to fill those positions and the overall effect on employment will be muted. Third, the ACA's subsidies for health insurance will both stimulate demand for health care services and allow low-income households to redirect some of the funds that they would have spent on that care toward the purchase of other goods and services—thereby increasing overall demand. That increase in overall demand while the economy remains somewhat weak will induce some employers to hire more workers or to increase the hours of current employees during that period.

### Why Does CBO Estimate Larger Reductions Than It Did in 2010?

In 2010, CBO estimated that the ACA, on net, would reduce the amount of labor used in the economy by roughly half a percent—primarily by reducing the amount of labor that workers choose to supply.[2] That measure of labor use was calculated in dollar terms, representing the approximate change in aggregate labor compensation that would result. Hence, that estimate can be compared with the roughly 1 percent reduction in aggregate compensation that CBO now estimates to result from the act. There are several reasons for that difference: CBO has now incorporated into its analysis additional channels through which the ACA will affect labor supply, reviewed new research about those effects, and revised upward its estimates of the responsiveness of labor supply to changes in tax rates.

## Effects of the ACA on the Supply of Labor

CBO anticipates that the ACA will lead to a net reduction in the supply of labor. In the agency's judgment, the effects will be most evident in some segments of the workforce and will be small or negligible for most categories of workers. (The ACA also will slightly affect employers' demand for labor, as discussed below, and the total effect on labor use will consist of the combined effects on supply and on demand.) In CBO's view, the ACA's effects on labor supply will stem mainly from the following provisions, roughly in order of importance:

2. See Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2010), Box 2-1, www.cbo.gov/publication/21670.

- The subsidies for health insurance purchased through exchanges;
- The expansion of eligibility for Medicaid;
- The penalties on employers that decline to offer insurance; and
- The new taxes imposed on labor income.

Some of those provisions will reduce the amount of labor supplied by some workers; other provisions will increase the amount of labor supplied by other workers. Several provisions also will combine to affect retirement decisions.

The ACA also could alter labor productivity—the amount of output generated per hour of work—which in turn would influence employment (for example, by affecting workers' health or firms' investments in training of workers). The effects on productivity could be positive or negative, however, and their net impact is uncertain, so they are not reflected in CBO's estimates of labor supply or demand. Because the ACA could affect labor markets through many channels, with substantial uncertainty surrounding the magnitude of the effects and their interactions, CBO has chosen not to report specific estimates for each of the channels encompassed by its analysis.

### Effects of Insurance Subsidies on the Supply of Labor

Beginning in 2014, many people who purchase insurance through exchanges will be eligible for federal tax credits to defray the cost of their premiums, and some also will be eligible for cost-sharing subsidies to reduce out-of-pocket expenditures for health care. Those subsidies are largest for people whose income is near the federal poverty guideline (also known as the federal poverty level, or FPL), and they decline with rising income.[3]

In 2014, for example, a single person or a family whose income is 150 percent of the FPL and is eligible for subsidies will pay 4 percent of their income for a certain "silver" health care plan purchased through an exchange; if their income is 200 percent of the FPL, they will pay 6.3 percent of their income for that plan.[4] An increase in income thus raises the enrollee premium (and reduces the subsidy) both because the percentage-of-income formula applies to a larger dollar amount and because that percentage itself increases. People whose income exceeds 400 percent of the FPL are ineligible for premium subsidies, and for some people those subsidies will drop abruptly to zero when income crosses that threshold. Cost-sharing subsidies also phase out in steps with rising income, declining sharply at 150 percent, 200 percent, and 250 percent of the FPL.

CBO's estimate of the impact that the subsidies will have on labor supply has three components: the magnitude of the incentive, the number and types of people affected, and the degree of responsiveness to the incentive among those who are affected.

**The Magnitude of the Incentive to Reduce Labor Supply.** For some people, the availability of exchange subsidies under the ACA will reduce incentives to work both through a substitution effect and through an income effect. The former arises because subsidies decline with rising income (and increase as income falls), thus making work less attractive. As a result, some people will choose not to work or will work less—thus substituting other activities for work. The income effect arises because subsidies increase available resources—similar to giving people greater income—thereby allowing some people to maintain the same standard of living while working less. The magnitude of the incentive to reduce labor supply thus depends on the size of the subsidies and the rate at which they are phased out.

**The Number and Types of Workers Likely To Be Affected.** Subsidies clearly alter recipients' incentives to work and can certainly influence the labor supply of those who would gain eligibility by working and earning slightly less. But most full-time workers do not confront that particular choice—either their income is well above 400 percent of the FPL or they are offered employment-based health insurance and thus are generally ineligible for subsidies regardless of their income. Even so, one line of research indicates that the subsidies will affect the labor supply of many full-time workers with health insurance

3. In 2013, the FPL (which is indexed to inflation) was $11,490 for a single person and $23,550 for a family of four. Calculations of exchange subsidies for 2014 use the 2013 FPL schedule.

4. A silver plan pays about 70 percent of covered health costs, on average. For the second-least-expensive silver plan offered on the exchanges, the premium, net of subsidies, for a family of four in 2014 would be $1,413 at 150 percent of the FPL ($35,325) but would rise to $2,967 at 200 percent of the FPL ($47,100).

from their employer—precisely because they effectively forgo exchange subsidies when they take or keep a job with health insurance.[5] If instead a worker switched to a part-time job, which typically does not offer health insurance, that worker could become eligible for exchange subsidies. In that view, exchange subsidies effectively constitute a tax on labor supply for a broad range of workers.

In CBO's judgment, however, the cost of forgoing exchange subsidies operates primarily as an implicit tax on employment-based insurance, which does not imply a change in hours worked. Instead, the tax can be avoided if a worker switches to a different full-time job without health insurance (or possibly two part-time jobs) or if the employer decides to stop offering that benefit. The consequences of that implicit tax are incorporated into CBO's estimate of the ACA's effect on employment-based coverage—which is projected to decline, on net, by about 4 percent because of the ACA (see Appendix B).[6] Correspondingly, the negative effects of exchange subsidies on incentives to work will be relevant primarily for a limited segment of the population—mostly people who have no offer of employment-based coverage and whose income is either below or near 400 percent of the FPL.

Nonetheless, another subgroup that has employment-based insurance does seem likely to reduce their labor supply somewhat. Specifically, those people whose income would make them eligible for subsidies through exchanges (or for Medicaid), and who work less than a full year (roughly 10 to 15 percent of workers in that income range in a typical year), would tend to work somewhat less because of the ACA's subsidies. For those workers, the loss of subsidies upon returning to a job with health insurance is an implicit tax on working (and is equivalent to an average tax rate of roughly 15 percent, CBO estimates). That implicit tax will cause some of those workers to lengthen the time they are out of work—similar to the effect of unemployment benefits.

**Responsiveness of Affected Groups.** The implicit taxes that arise from the phaseout of the subsidies have effects on net income that are similar to the effects of direct taxes. With tax changes, however, the income and substitution effects typically work in opposite directions, whereas with the insurance subsidies the income and substitution effects work in the same direction to decrease labor supply.[7] CBO's estimate of the response of labor supply to the subsidies is based on research concerning the way changes in marginal tax rates affect labor supply and on studies analyzing how labor supply responds to changes in after-tax income.[8]

### Effects of the Medicaid Expansion on Labor Supply

The ACA significantly increases eligibility for Medicaid for residents of states that choose to expand their programs. In states that adopt the expansion, Medicaid eligibility is extended to most nonelderly residents whose income is below 138 percent of the FPL—including childless adults who previously were ineligible for Medicaid in most states regardless of their income. In states that have not expanded Medicaid, people whose income is between 100 percent and 138 percent of the FPL become eligible for subsidies through the exchanges; in those states, subsidies could decline abruptly if an enrollee's income fell from just above the FPL to just below it (and vice versa). By 2018, CBO expects that around 80 percent of the potentially eligible population will live in states that have expanded Medicaid.

5. See Casey B. Mulligan, *Average Marginal Tax Rates Under the Affordable Care Act*, Working Paper 19365 (National Bureau of Economic Research, August 2013), www.nber.org/papers/w19365, and *Is the Affordable Care Act Different From Romneycare? A Labor Economics Perspective*, Working Paper 19366 (National Bureau of Economic Research, August 2013), www.nber.org/papers/w19366.

6. See Congressional Budget Office, *CBO and JCT's Estimates of the Effects of the Affordable Care Act on the Number of People Obtaining Employment-Based Health Insurance* (March 2012), www.cbo.gov/publication/43082.

7. To see how the substitution and income effects can create counteracting pressures on people's willingness to work when tax rates change, consider the case of an increase in tax rates. The resulting reduction in take-home pay for an additional hour of work makes work less valuable relative to other uses of time and encourages people to work less. Reduced after-tax income from a given amount of work, however, encourages people to work more to limit the decline in their standard of living.

8. See Congressional Budget Office, *How the Supply of Labor Responds to Changes in Fiscal Policy* (October 2012), www.cbo.gov/publication/43674; Robert McClelland and Shannon Mok, *A Review of Recent Research on Labor Supply Elasticities*, Working Paper 2012-12 (Congressional Budget Office, October 2012), www.cbo.gov/publication/43675; and Felix Reichling and Charles Whalen, *Review of Estimates of the Frisch Elasticity of Labor Supply*, Working Paper 2012-13 (Congressional Budget Office, October 2012), www.cbo.gov/publication/43676.

**Incentives to Change Labor Supply and Groups Affected.** For some people, the ACA's expansion of Medicaid will reduce the incentive to work—but among other people it will increase that incentive. As with exchange subsidies, access to Medicaid confers financial benefits that are phased out with rising income or (more commonly) eliminated when income exceeds a threshold; some people will thus work fewer hours or withdraw from the labor force to become or remain eligible (the substitution effect). Moreover, those financial benefits will lead some people to work less because the increase in their available resources enables them to reduce work without a decline in their standard of living (the income effect).

At the same time, some people who would have been eligible for Medicaid under prior law—in particular, working parents with very low income—will work more as a result of the ACA's provisions. In 2013, the median income threshold for that group's Medicaid eligibility was 64 percent of the FPL (albeit with substantial state-to-state variation). The incentives and groups affected depend on whether a state has adopted the Medicaid expansion (and, in both cases, those incentives are intertwined with the effects of the exchange subsidies):

- In states that have chosen to expand Medicaid, the ACA now allows parents to qualify for Medicaid with income up to 138 percent of the FPL. And if their income rises above that threshold, those parents would generally be eligible for premium tax credits and cost-sharing subsidies for insurance purchased through the exchanges unless they are offered qualified employment-based health insurance. The subsidies will cover a smaller share of enrollees' medical costs than Medicaid would, but under prior law those participants ultimately would have become ineligible for Medicaid and lost all benefits. As a result, some people who would have curtailed their hours of work in order to maintain access to Medicaid under prior law will now be able to increase their hours and income while remaining eligible for subsidized insurance.

- In states that choose not to expand Medicaid, the availability of exchange subsidies also will lead some people to work more. Specifically, some people who would otherwise have income below the FPL will work more so that they can qualify for the substantial exchange subsidies that become available when income is equal to or just above the FPL

**Responses of Affected Groups.** A number of studies examining the impact of changes in Medicaid eligibility for parents and children have shown either no effects or small effects on the labor supply of single mothers; effects on two-parent households appear to be somewhat larger, in part because health insurance has stronger effects on the labor supply of secondary earners.[9]

More recently, several studies have examined changes in state policies that affect childless adults—who constitute the majority of those gaining coverage through the Medicaid expansion—and larger effects have been reported. Some reductions in employment are reported among people who have gained Medicaid eligibility, although the findings differ regarding the magnitude and statistical significance of that effect.[10] Similarly, other research shows a rise in employment rates with the withdrawal of Medicaid coverage from childless adults who had previously been turned down for private insurance.[11] Because those studies examined state-level policy initiatives affecting program eligibility—instead of changes in eligibility attributable to income changes, which could merely reflect changes in employment—the results provide some useful insights into the potential effects of the ACA (even though other aspects of the studies raise questions about their applicability to an analysis of the ACA).

Taking that research into account, CBO estimates that expanded Medicaid eligibility under the ACA will, on balance, reduce incentives to work. That effect has a relatively modest influence on total labor supply, however, because the expansion of eligibility for Medicaid primarily affects a relatively small segment of the total population—both because most people's income will

9. See Jonathan Gruber and Brigitte C. Madrian, *Health Insurance, Labor Supply, and Job Mobility: A Critical Review of the Literature*, Working Paper 8817 (National Bureau of Economic Research, February 2002), www.nber.org/papers/w8817.

10. See Katherine Baicker and others, *The Impact of Medicaid on Labor Force Activity and Program Participation: Evidence from the Oregon Health Insurance Experiment*, Working Paper 19547 (National Bureau of Economic Research, October 2013), www.nber.org/papers/w19547; and Laura Dague, Thomas DeLeire, and Lindsey Leininger, "The Effect of Public Insurance Coverage for Childless Adults on Labor Supply" (draft, March 2013), www.uh.edu/~achin/conference/dague.pdf (950 KB).

11. Craig Garthwaite, Tal Gross, and Matthew J. Notowidigdo, *Public Health Insurance, Labor Supply, and Employment Lock*, Working Paper 19220 (National Bureau of Economic Research, July 2013), www.nber.org/papers/w19220.

significantly exceed the cutoff for Medicaid eligibility and because some low-income people live in states that are not expected to expand Medicaid.

### Effects of the Employer Penalty on Labor Supply

Under the ACA, employers with 50 or more full-time-equivalent employees will face a penalty if they do not offer insurance (or if the insurance they offer does not meet certain criteria) and if at least one of their full-time workers receives a subsidy through an exchange. Originally scheduled to take effect in 2014, that penalty is now scheduled to be enforced beginning in 2015. In CBO's judgment, the costs of the penalty eventually will be borne primarily by workers in the form of reductions in wages or other compensation—just as the costs of a payroll tax levied on employers will generally be passed along to employees.[12] Because the supply of labor is responsive to changes in compensation, the employer penalty will ultimately induce some workers to supply less labor.

In the next few years, however, when wages probably will not adjust fully, those penalties will tend to reduce the demand for labor more than the supply. In the longer run, some businesses also may decide to reduce their hiring or shift their demand toward part-time hiring—either to stay below the threshold of 50 full-time-equivalent workers or to limit the number of full-time workers that generate penalty payments. But such shifts might not reduce the overall use of labor, as discussed below.

### Effects of Higher Marginal Tax Rates on Labor Supply

To cover part of the cost of the expansion of coverage, the ACA also imposes higher taxes on some people.[13] In particular, the payroll tax for Medicare's Hospital Insurance program has increased by 0.9 percentage points for workers whose earnings are above $200,000 ($250,000 for those filing a joint return).[14] As with other tax increases, those changes will exert competing pressures on labor supply: Lower after-tax compensation will encourage people to work more to make up for the lost income, but the decline in after-tax hourly compensation also will reduce the return on each additional hour of work, thus tending to reduce the incentive to work. On net, CBO anticipates, the second effect will be larger than the first, and the tax will yield a small net reduction in labor supply.

In addition, beginning in 2018, the ACA imposes an excise tax on certain high-cost health insurance plans. CBO expects that the burden of that tax will, over time, be borne primarily by workers in the form of smaller after-tax compensation. Some firms may seek to avoid or limit the amount of the excise tax they pay by switching to less expensive health plans, and in that case workers' wages should rise by a corresponding amount. Those wages will be subject to income and payroll taxes, however, so total tax payments by those workers will be higher than they would have been in the absence of the ACA. After-tax compensation will thus fall whether firms pay the excise tax or take steps to avoid it, and the resulting increases in average and marginal tax rates will cause a slight decline in the supply of labor, CBO estimates.

Under certain circumstances, the ACA also imposes a penalty tax on people who do not have qualified health insurance. That tax is to be phased in over time; by 2016, it will generally be the greater of $695 annually per adult or 2.5 percent of taxable income (each subject to a cap).[15] For people who are subject to the percentage-of-income penalty, that tax discourages work—but CBO estimates

12. By contrast, if employers add health insurance coverage as a benefit in response to the penalty or drop coverage despite it, CBO estimates that their workers' wages will adjust by roughly the employers' cost of providing that coverage—so total compensation would stay about the same and labor supply would not be affected by the change in employer coverage.

13. CBO and the staff of the Joint Committee on Taxation have estimated that, on balance, the ACA will reduce the cumulative deficit over the 2013–2022 period because cuts in other spending more than offset the rest of the cost of the expansion in coverage. Therefore, repealing the ACA would increase budget deficits by a corresponding amount over that period; see Congressional Budget Office, letter to the Honorable John Boehner providing an estimate for H.R. 6079, the Repeal of Obamacare Act (July 24, 2012), www.cbo.gov/publication/43471.

14. The ACA has also raised the tax rate on capital income for some higher-income households and imposed taxes on certain goods and services (such as medical devices), but CBO does not expect those provisions to have a noticeable effect on the overall labor market.

15. For families who are subject to the dollar penalty, the penalty per child is one-half the adult penalty, and in 2016 the payment is capped at $2,085; for people who are subject to the percentage-of-income penalty, the tax payment is capped at the average cost of a "bronze" insurance plan (which, on average, covers 60 percent of enrollees' health costs) offered through the exchanges. After 2016, the dollar penalty is indexed to general inflation.

that a relatively small number of workers will be affected. About 6 million workers and dependents will be subject to the penalty tax in 2016, and among the workers who pay it, a large share will be subject to the dollar penalty rather than the percentage-of-income penalty.[16] As a result, CBO estimates that its impact on aggregate labor supply will be negligible.

### Effects on Retirement Decisions and Disabled Workers

Changes to the health insurance market under the ACA, including provisions that prohibit insurers from denying coverage to people with preexisting conditions and those that restrict variability in premiums on the basis of age or health status, will lower the cost of health insurance plans offered to older workers outside the workplace. As a result, some will choose to retire earlier than they otherwise would—another channel through which the ACA will reduce the supply of labor.

The new insurance rules and wider availability of subsidies also could affect the employment decisions of people with disabilities, but the net impact on their labor supply is not clear. In the absence of the ACA, some workers with disabilities would leave the workforce to enroll in such programs as Disability Insurance (DI) or Supplemental Security Income (SSI) and receive subsidized health insurance. (SSI enrollees also receive Medicaid; DI enrollees become eligible for Medicare after a two-year waiting period.) Under the ACA, however, they could be eligible for subsidized health insurance offered through the exchanges, and they cannot be denied coverage or charged higher premiums because of health problems. As a result, some disabled workers who would otherwise have been out of the workforce might stay employed or seek employment. At the same time, those subsidies and new insurance rules might lead other disabled workers to leave the workforce earlier than they otherwise would. Unlike DI applicants who are ineligible for SSI, they would not have to wait two years before they received the ACA's Medicaid benefits or exchange subsidies—making it more attractive to leave the labor force and apply for DI.

16. See Congressional Budget Office, *Payments of Penalties for Being Uninsured Under the Affordable Care Act* (September 2012), www.cbo.gov/publication/43628.

### Possible Effects on Labor Supply Through Productivity

In addition to the effects discussed above, the ACA could shape the labor market or the operations of the health sector in ways that affect labor productivity. For example, to the extent that increases in insurance coverage lead to improved health among workers, labor productivity could be enhanced. In addition, the ACA could influence labor productivity indirectly by making it easier for some employees to obtain health insurance outside the workplace and thereby prompting those workers to take jobs that better match their skills, regardless of whether those jobs offered employment-based insurance.

Some employers, however, might invest less in their workers—by reducing training, for example—if the turnover of employees increased because their health insurance was no longer tied so closely to their jobs. Furthermore, productivity could be reduced if businesses shifted toward hiring more part-time employees to avoid paying the employer penalty and if part-time workers operated less efficiently than full-time workers did. (If the dollar loss in productivity exceeded the cost of the employer penalty, however, businesses might not shift toward hiring more part-time employees.)

Whether any of those changes would have a noticeable influence on overall economic productivity, however, is not clear. Moreover, those changes are difficult to quantify and they influence labor productivity in opposing directions. As a result, their effects are not incorporated into CBO's estimates of the effects of the ACA on the labor market.

Some recent analyses also have suggested that the ACA will lead to higher productivity in the health care sector—in particular, by avoiding costs for low-value health care services—and thus to slower growth in health care costs under employment-based health plans.[17] Slower growth in those costs would effectively increase workers' compensation, making work more attractive. Those effects could increase the supply of labor (and could increase the demand for labor in the near term, if some of the savings were not immediately passed on to workers).

17. See Council of Economic Advisers, *Trends in Health Care Cost Growth and the Role of the Affordable Care Act* (November 2013), http://go.usa.gov/ZJFJ; and David Cutler and Neeraj Sooj, *New Jobs Through Better Health Care* (Center for American Progress, January 2010), http://tinyurl.com/oc2zdta.

Whether the ACA already has or will reduce health care costs in the private sector, however, is hard to determine. The ACA's reductions in payment rates to hospitals and other providers have slowed the growth of Medicare spending (compared with projections under prior law) and thus contributed to the slow rate of overall cost growth in health care since the law's enactment. Private health care costs (as well as national health expenditures) have grown more slowly in recent years as well, but analysts differ about the shares of that slowdown that can be attributed to the deep recession and weak recovery, to provisions of the ACA, and to other changes within the health sector. Moreover, the overall influence of the ACA on the cost of employment-based coverage is difficult to predict—in part because some provisions could either increase or decrease private-sector spending on health care and in part because many provisions have not yet been fully implemented or evaluated.[18] Consequently, CBO has not attributed to the ACA any employment effects stemming from slower growth of premiums in the private sector.

## Effects of the ACA on the Demand for Labor

The ACA also will affect employers' demand for workers, mostly over the next few years, both by increasing labor costs through the employer penalty (which will reduce labor demand) and by boosting overall demand for goods and services (which will increase labor demand).

### Effects of the Employer Penalty on the Demand for Labor

Beginning in 2015, employers of 50 or more full-time-equivalent workers that do not offer health insurance (or that offer health insurance that does not meet certain criteria) will generally pay a penalty. That penalty will initially reduce employers' demand for labor and thereby tend to lower employment. 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 labor *demand* but will reduce labor *supply* and will lower employment slightly through that channel.

Businesses face two constraints, however, in seeking to shift the costs of the penalty to workers. First, there is considerable evidence that employers refrain from cutting their employees' wages, even when unemployment is high (a phenomenon sometimes referred to as sticky wages).[19] For that reason, some employers might leave wages unchanged and instead employ a smaller workforce. That effect will probably dissipate entirely over several years for most workers because companies that face the penalty can restrain wage growth until workers have absorbed the cost of the penalty—thus gradually eliminating the negative effect on labor demand that comes from sticky wages.

A second and more durable constraint is that businesses generally cannot reduce workers' wages below the statutory minimum wage.[20] As a result, some employers will respond to the penalty by hiring fewer people at or just above the minimum wage—an effect that would be similar to the impact of raising the minimum wage for those companies' employees. Over time, as worker productivity rises and inflation erodes the value of the minimum wage, that effect is projected to decline because wages for fewer jobs will be constrained by the minimum wage. The effect will not disappear completely over the next 10 years, however, because some wages are still projected to be constrained (that is, wages for some jobs will be at or just above the minimum wage).

Businesses also may respond to the employer penalty by seeking to reduce or limit their full-time staffing and to hire more part-time employees. Those responses might occur because the employer 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 employees). People are generally considered full time under the ACA if they work 30 hours or more per week, on average, so

18. Before the ACA was enacted, CBO estimated that the provisions of a similar proposal might cause a small increase or decrease in premiums for employment-based coverage, although that analysis did not take into account the effects of the excise tax on certain high-cost employment-based plans. See Congressional Budget Office, *An Analysis of Health Insurance Premiums Under the Patient Protection and Affordable Care Act* (November 2009), www.cbo.gov/publication/41792.

19. See, for example, Peter Gottschalk, "Downward Nominal Wage Flexibility: Real or Measurement Error?" *Review of Economics and Statistics*, vol. 87, no. 3 (August 2005), pp. 556–568, http://tinyurl.com/k9bcxss; and Alessandro Brattieri, Susanto Basu, and Peter Gottschalk, *Some Evidence on the Importance of Sticky Wages*, Working Paper 16130 (National Bureau of Economic Research, June 2010), www.nber.org/papers/w16130.

20. As of January 2014, the federal minimum wage was $7.25 per hour. Roughly half of all workers, however, live in states or communities where the minimum wage is higher.

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 bearing the costs of the penalty.

Such a change might or might not, on its own, reduce the total number of hours worked. In the example just offered, the total amount of work is unaffected by the changes. Moreover, adjustments of that sort can take time and be quite costly—in particular, because of the time and costs that arise in dismissing full-time workers (which may involve the loss of workers with valuable job-specific skills); the time and costs associated with hiring new part-time workers (including the effort spent on interviewing and training); and, perhaps most important, the time and costs of changing work processes to accommodate a larger number of employees working shorter and different 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 is unclear as well; although hourly wages for full-time jobs might be lower than those for part-time jobs (once wages adjust to the penalty), workers also would incur additional costs associated with holding more than one job at a time.

In CBO's judgment, there is no compelling evidence that part-time employment has increased as a result of the ACA. On the one hand, there have been anecdotal reports of firms responding to the employer penalty by limiting workers' hours, and the share of workers in part-time jobs has declined relatively slowly since the end of the recent recession. On the other hand, the share of workers in part-time jobs generally declines slowly after recessions, so whether that share would have declined more quickly during the past few years in the absence of the ACA is difficult to determine.[21] In any event, because the employer penalty will not take effect until 2015, the current lack of direct evidence may not be very informative about the ultimate effects of the ACA.

More generally, some employers have expressed doubts about whether and how the provisions of the ACA will unfold. Uncertainty in several areas—including the timing and sequence of policy changes and implementation procedures and their effects on health insurance premiums and workers' demand for health insurance—probably has encouraged some employers to delay hiring. However, those effects are difficult to quantify separately from other developments in the labor market, and possible effects on the demand for labor through such channels have not been incorporated into CBO's estimates of the ACA's impact.

### Effects of Changes in the Demand for Goods and Services on the Demand for Labor

CBO estimates that, over the next few years, the various provisions of the ACA that affect federal revenues and outlays will increase demand for goods and services, on net. Most important, the expansion of Medicaid coverage and the provision of exchange subsidies (and the resulting rise in health insurance coverage) will not only stimulate greater demand for health care services but also allow lower-income households that gain subsidized coverage to increase their spending on other goods and services—thereby raising overall demand in the economy. A partial offset will come from the increased taxes and reductions in Medicare's payments to health care providers that are included in the ACA to offset the costs of the coverage expansion.

On balance, CBO estimates that the ACA will boost overall demand for goods and services over the next few years because the people who will benefit from the expansion of Medicaid and from access to the exchange subsidies are predominantly in lower-income households and thus are likely to spend a considerable fraction of their additional resources on goods and services—whereas people who will pay the higher taxes are predominantly in higher-income households and are likely to change their spending to a lesser degree. Similarly, reduced payments under Medicare to hospitals and other providers will lessen their income or profits, but those changes are likely to decrease demand by a relatively small amount.

The net increase in demand for goods and services will in turn boost demand for labor over the next few years, CBO estimates.[22] Those effects on labor demand tend to be especially strong under conditions such as those now prevailing in the United States, where output is so far below its maximum sustainable level that the Federal Reserve has kept short-term interest rates near zero for several years and probably would not adjust those rates to

21. See Congressional Budget Office, *The Slow Recovery of the Labor Market* (February 2014), www.cbo.gov/publication/45011.

22. For further discussion of CBO's analysis of the economic effects of budgetary policies, see Congressional Budget Office, *Economic Effects of Policies Contributing to Fiscal Tightening in 2013* (November 2012), pp. 2–5, www.cbo.gov/publication/43694.

offset the effects of changes in federal spending and taxes. Over time, however, those effects are expected to dissipate as overall economic output moves back toward its maximum sustainable level.

## Why Short-Term Effects Will Be Smaller Than Longer-Term Effects

CBO estimates that the reduction in the use of labor that is attributable to the ACA will be smaller between 2014 and 2016 than it will be between 2017 and 2024. That difference is a result of three factors in particular—two that reflect smaller negative effects on the supply of labor and one that reflects a more positive effect on the demand for labor:

- The number of people who will receive exchange subsidies—and who thus will face an implicit tax from the phaseout of those subsidies that discourages them from working—will be smaller initially than it will be in later years. The number of enrollees (workers and their dependents) purchasing their own coverage through the exchanges is projected to rise from about 6 million in 2014 to about 25 million in 2017 and later years, and most of those enrollees will receive subsidies. Although the number of people who will be eligible for exchange subsidies is similar from year to year, workers who are eligible but do not enroll may either be unaware of their eligibility or be unaffected by it and thus are unlikely to change their supply of labor in response to the availability of those subsidies.

- CBO anticipates that the unemployment rate will remain high for the next few years. If changes in incentives lead some workers to reduce the amount of hours they want to work or to leave the labor force altogether, many unemployed workers will be available to take those jobs—so the effect on overall employment of reductions in labor supply will be greatly dampened.

- The expanded federal subsidies for health insurance will stimulate demand for goods and services, and that effect will mostly occur over the next few years. That increase in demand will induce some employers to hire more workers or to increase their employees' hours during that period.

CBO anticipates that output will return nearly to its maximum sustainable level in 2017 (see Chapter 2). Once that occurs, the net decline in the amount of labor that workers choose to supply because of the ACA will be fully reflected in a decline in total employment and hours worked relative to what would otherwise occur.

## Differences From CBO's Previous Estimates of the ACA's Effects on Labor Markets

CBO's estimate that the ACA will reduce aggregate labor compensation in the economy by about 1 percent over the 2017–2024 period—compared with what would have occurred in the absence of the act—is substantially larger than the estimate the agency issued in August 2010.[23] At that time, CBO estimated that, once it was fully implemented, the ACA would reduce the use of labor by about one-half of a percent. That measure of labor use was calculated in dollar terms, representing the change in aggregate labor compensation that would result. Thus it can be compared with the reduction in aggregate compensation that CBO now estimates to result from the act (rather than with the projected decline in the number of hours worked).

The increase in that estimate primarily reflects three factors:

- The revised estimate is based on a more detailed analysis of the ACA that incorporates additional channels through which that law will affect labor supply. In particular, CBO's 2010 estimate did not include an effect on labor supply from the employer penalty and the resulting reduction in wages (as the costs of that penalty are passed on to workers), and it did not include an effect from encouraging part-year workers to delay returning to work in order to retain their insurance subsidies.

- CBO has analyzed the findings of several studies published since 2010 concerning the impact of provisions of the ACA (or similar policy initiatives) on labor markets. 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.

23. See Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2010), Box 2-1, www.cbo.gov/publication/21670.

- CBO made an upward revision in its estimates of the impact that changes in after-tax wages have on labor supply, reflecting a broad review of the tax literature that has informed several of CBO's estimates and analyses.[24]

CBO's updated estimate of the decrease in hours worked translates 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. Previously, the agency estimated that if the ACA did not affect the average number of hours worked per employed person, it would reduce household employment in 2021 by about 800,000.[25] By way of comparison, CBO's current estimate for 2021 is a reduction in full-time-equivalent employment of about 2.3 million.

The current estimate of the ACA's impact on hours worked and full-time-equivalent employment is considerably higher for two significant reasons.[26] First, as described above, CBO has boosted its estimate of the ACA's effect on aggregate labor compensation in the economy from about 0.5 percent to about 1 percent. Second, CBO has increased its estimate of the effect of a given reduction in aggregate compensation under the ACA on hours worked. CBO's earlier estimate was based on a simplifying assumption that affected workers would have average earnings—in which case the percentage reductions in compensation and hours worked would be roughly the same. However, people whose employment or hours worked will be most affected by the ACA are expected to have below-average earnings because the effects of the subsidies that are available through exchanges 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.

The reduction in full-time-equivalent employment that CBO expects will arise from the ACA includes some people choosing not to work at all and other people choosing to work fewer hours than they would have in the absence of the law; however, CBO has not tried to quantify those two components of the overall effect. Because some people will reduce the amount of hours they work rather than stopping work altogether, the number who will choose to leave employment because of the ACA in 2024 is likely to be substantially less than 2.5 million. At the same time, more than 2.5 million people are likely to reduce the amount of labor they choose to supply to some degree because of the ACA, even though many of them will not leave the labor force entirely.

24. See Congressional Budget Office, *How the Supply of Labor Responds to Changes in Fiscal Policy* (October 2012), www.cbo.gov/publication/43674.

25. See testimony of Douglas W. Elmendorf, Director, Congressional Budget Office, before the Subcommittee on Health of the House Energy and Commerce Committee, *CBO's Analysis of the Major Health Care Legislation Enacted in 2010* (March 30, 2011), pp. 31–33, www.cbo.gov/publication/22077.

26. The estimates also differ in that the first estimate was presented in terms of household employment and the current estimate is presented in terms of full-time-equivalent employment. However, that difference is relatively small when comparing CBO's previous estimate with the current one.