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Answers to Questions for the Record Following a Hearing Conducted by the Senate Committee on the Budget on CBO's Budget Projections

On September 23, 2020, the Senate Committee on the Budget convened a hearing at which Phillip L. Swagel, the Congressional Budget Office's Director, testified about the agency's report The 2020 Long-Term Budget Outlook.[1] *After the hearing, four members of the Committee submitted questions for the record. This document provides CBO's answers. It is available at cbo.gov/publication/56908.*

Senator Grassley

Question. In mid-July, Social Security's chief actuary was discussing the Average Wage Index used to help compute Social Security benefits, which may decline this year.

The chief actuary said that experience up to that point for 2020 suggested that total wages for the entire year will be on the order of 10 percent lower than what was projected in the 2020 Social Security trustees report.

And, the number of workers without any earnings received in 2020, regardless of how much they worked in 2020, will be about 1 percent lower than projected in the trustees report.

Data used to compute the Average Wage Index come from tax information collected by the Social Security Administration (SSA), and most of that data, as I understand it, won't be known until late next year.

Director Swagel, I have a few questions about the Average Wage Index, or AWI. Does the CBO have access to data used by SSA to compute the AWI?

Answer. The Congressional Budget Office receives access to data SSA uses to compute the average wage approximately a year after SSA has published the AWI; even then, CBO only gains access to data for a subset of the population (whereas the AWI computation is based on data for the full population). Therefore, CBO's assessments about the 2020 AWI are made from other, similar data sources, such as employer and household surveys, aggregate wages as reported by the Bureau of Economic Analysis, and data on tax withholding.

Question. If so, do you agree with the chief actuary's assessment that as of mid-July, it looked like the AWI will be 10 percent lower than was projected in the 2020 Social Security trustees report, and the number of workers 1 percent lower than projected?

Answer. CBO's current projections of the AWI are based on economic projections released in July. In those projections, the number of people working during at least part of 2020 was

1. See Congressional Budget Office, *The 2020 Long-Term Budget Outlook* (September 2020), www.cbo.gov/publication/56516.

only slightly lower than the agency anticipated in January, but total projected earnings were substantially lower because of the 2020 coronavirus pandemic. As a result, CBO projected in its September report on the budget outlook that the AWI will be about 7 percent lower in 2020 than it estimated at the beginning of this year. The labor market recovery has proceeded faster than anticipated when that projection was made, suggesting that the decline in the AWI will probably be considerably less than the 7 percent projected in September. CBO will release an updated analysis early next year.

Question. And, if you have access to the data, or any data that could help forecast the AWI, how has that assessment changed, if at all, since mid-July?

Answer. Broadly speaking, the labor market rebound has been stronger than CBO anticipated; workers' earnings have come in stronger than CBO anticipated in July, which suggests that the decline in the AWI will probably be considerably less than the 7 percent projected in September. CBO will release an updated analysis early next year.

Question. Social Security's chief actuary has added commentary in the last seven annual trustees report about trust fund accounting versus unified budget accounting.

According to the actuary, under trust fund accounting, benefits can't be paid in full after a trust fund is depleted. In contrast, he says that unified budget accounting assumes full scheduled benefits would be paid with general fund transfers.

The actuary says that draws from the general fund are not permissible under current law, and that—quote—"no precedent exists for a change in the Social Security Act to finance unfunded trust fund obligations with such draws on other Federal resources."

But if I remember correctly, during the Obama administration there were payroll tax holidays where general fund resources were transferred to Social Security's trust funds to help pay benefits. So, I'm not so sure why Social Security's chief actuary continues to make a big deal about trust fund versus unified budget accounting.

Director Swagel, while Social Security does not by itself have borrowing authority, when Congress decides to replenish trust funds with general fund transfers, as was done during the Obama administration, is there any real difference between what the actuary calls the trust fund perspective and the unified budget perspective?

Answer. Whether benefits are financed by Social Security taxes or by general fund transfers to the trust funds makes no difference to recipients of those benefits—the distinction between the trust fund perspective and the unified budget perspective does not affect the amount received by Social Security recipients if the Congress replenishes trust funds with general fund transfers.

CBO projects that the Social Security trust funds will be exhausted in coming years. Upon exhaustion and without legislative action, benefits would be reduced to the amount available from contemporaneous income. But as long as a trust fund's balance remains positive, benefits are paid as scheduled under law. Thus, general fund transfers would delay or prevent trust fund exhaustion and enable payment of additional benefits. Ultimately, the balances of the trust funds are not affected by such transfers because the increased income from the transfers is offset by benefit payments greater than those possible under current law (unless the transfers are larger than needed to pay scheduled benefits).

Such transfers affect the overall federal budget: The additional benefits enabled by general fund transfers would increase the unified budget deficit in years after a trust fund would have otherwise become exhausted, increasing the federal debt relative to what would occur without such transfers (assuming that the transfers are not offset by actions that would increase federal revenues).

In keeping with section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline incorporates the assumption that scheduled payments will continue to be made in full after a trust fund has been exhausted, although there is currently no legal authority to make such payments. This means that the additional spending associated with such transfers from the general fund would not be added to CBO's baseline and would not appear in cost estimates for legislation authorizing such transfers (even though the transfers involve a commitment of funds and thus correspond to a use of economic resources by the nation).

Senator Johnson

Question. Current law states if an individual has an offer of "affordable" employer coverage—defined as requiring out-of-pocket premium payments of less than 9.78% of income—they cannot receive a federal subsidy for an Exchange plan. In July 2020, the Biden campaign put forth a list of recommendations which included repealing this policy, referred to as a "firewall" between employer and Exchange coverage. A recent study found that repealing the current firewall, along with richer Exchange subsidies, could cause approximately 24 million individuals to switch to subsidized Exchange plans, leading to $2.2 trillion in new spending on Exchange subsidies. Has CBO studied the impact of – or provided guidance to Congress about a policy—repealing the ACA's firewall and allowing individuals to choose between ESI and individual market plans on the Exchange? If so, what was that analysis or guidance? If not, how would CBO view such a policy?

Answer. CBO has not completed a comprehensive quantitative analysis of the effects of repealing the Affordable Care Act's (ACA's) firewall and allowing individuals to choose between employment-based coverage and subsidized marketplace coverage.

CBO anticipates that repealing the firewall would result in more workers declining employment-based coverage in favor of marketplace coverage. Employers would respond differently to the repeal of the firewall depending on the composition of their workforce and the availability of premium tax credits to their employees: Some employers would rescind insurance offers (because some employees would gain access to better alternatives to employment-based insurance), and some employers would newly offer insurance (because such offers would no longer prevent employees from receiving marketplace subsidies). CBO expects that the combined effect of employees' and employers' decisions would be a decline in enrollment in employment-based coverage.[2]

The impact of such a policy would depend on other components of the legislation, particularly the availability and generosity of marketplace subsidies for workers who are not eligible for subsidies under current law.

Question. Can CBO quantify the change in ESI take-up in the event the firewall gets repealed? Can CBO quantify how much federal spending on Exchange subsidies would increase if the firewall is repealed?

2. For additional discussion of CBO's qualitative assessment of the effects of repealing the firewall on employer decisions to offer health insurance, see Congressional Budget Office, *Policies to Achieve Near-Universal Health Insurance Coverage* (October 2020), www.cbo.gov/publication/56666.

Answer. Although CBO has not produced an estimate for a policy to remove the ACA's firewall, the agency can provide some information from its September 2020 baseline estimates for context.

- CBO estimates that under current law, about a quarter of the 151 million people projected to have employment-based coverage in 2021 would be eligible for subsidies in the marketplaces if the firewall was removed. The newly eligible individuals would be people with income below 400 percent of the poverty level who are not eligible for Medicaid or the Children's Health Insurance Program (CHIP), who currently have an affordable offer of insurance, and who are not immigrants that are not lawfully present.

- The out-of-pocket premium cost for the benchmark plan (the cost used to determine marketplace subsidies) would be lower than the current premium contributions for employment-based coverage for 20 percent of newly eligible individuals. In addition to premiums, a person's choice of insurance plan is also influenced by factors such as total out-of-pocket costs, provider networks, and covered benefits. For individuals and families with income above 250 percent of the federal poverty line, a silver plan purchased through a marketplace would result, on average, in higher out-of-pocket costs, narrower provider networks, and fewer covered benefits than an employer's plan. Consequently, many people who would be made eligible for premium subsidies would choose to remain in an employer's plan.

- People who would be most likely to enroll in marketplace coverage as a result of the elimination of the firewall—people for whom the after-subsidy premium for marketplace insurance would be lower than for employer-based insurance—would be eligible for an average of $4,700 in premium tax credit subsidies in 2021.

- Under current law, individuals who would become eligible for subsidized marketplace coverage by removal of the firewall will receive an estimated tax benefit averaging about $2,000 for their employment-based premiums in 2021. That benefit includes the exclusion of most premium contributions from employees' income taxes and payroll taxes as well as their exclusion from employers' payroll taxes. Employees who would enroll in marketplace coverage instead of employment-based insurance if the firewall was removed would no longer receive those benefits; that reduction in tax benefits would partially offset the federal government's added costs for premium subsidies.

Question. Does CBO believe that employers whose workers voluntarily switch to the Exchanges would receive an increase in taxable wages roughly equal to the cost of the (foregone) employer contribution toward coverage?

Answer. CBO and the staff of the Joint Committee on Taxation (JCT) expect that most of employers' savings would be passed on to workers in other forms of compensation, but not every employee would receive an increase in compensation equal to the amount his or her employer saved for two reasons. First, some of the employers' savings would accrue as increases in profits. Second, any compensation returned to workers would be distributed unequally among workers. How the compensation was distributed would depend on the tightness of the labor market and who was probably most affected when the employer stopped offering insurance. For example, since low-wage employees would, on average, receive larger subsidies for nongroup insurance, it is possible that employers would increase wages less for their lower-wage workers.

Some of the reduction in employers' payments for health insurance contributions that was passed back to their workers in other forms of compensation (such as wages or retirement benefits) would lead to an increase in federal revenues. Additionally, any of the employers' savings that accrued as profit increases would generally be taxed, which would also increase federal revenues.

Question. Does CBO believe that repealing the firewall would cause adverse selection problems between Exchange and employer coverage? If so, which way does CBO believe the adverse selection problems would lie—would sicker individuals tend to remain in employer coverage, or gravitate towards the Exchanges?

Answer. Whether there was adverse selection—a disproportionate shift of people with large expenditures on health care into either the nongroup market or employment-based coverage—would depend both on employers' decisions to offer insurance and on individuals' decisions to purchase coverage in the nongroup market. It is possible that employers would respond to removal of the firewall by encouraging less healthy employees to enroll in marketplace plans by offering less generous benefit packages. Nevertheless, in CBO's assessment, removal of the employer firewall is unlikely to result in adverse selection, in part because out-of-pocket premiums for employment-based coverage and subsidized marketplace plans do not depend on an individual's age or underlying health status. Out-of-pocket premiums instead depend on an individual's marginal tax rate, in the case of employment-based coverage, and on an individual's income relative to the federal poverty level, in the case of subsidized marketplace plans. In addition, average employer contributions are large enough to encourage employees to participate regardless of their health status, and subsidies in the nongroup market are sufficient to attract both healthy and unhealthy individuals. Therefore, CBO expects that both markets would continue to attract a sufficient number of relatively healthy people to maintain market stability.

Senator Warner

Question. In CBO's September report, "The Effects of Pandemic-Related Legislation on Output," CBO estimated that increased funding for state and local governments would boost GDP by 78 cents for every dollar of budgetary cost from FY20 through FY23. Given this rate of return compared to other policies, would Congress passing more assistance for state and local governments generate more economic growth? How would the amount of state and local funding provided by the House-passed *HEROES Act* impact economic growth?

Answer. CBO estimated that the $150 billion in direct assistance for state and local governments provided by the Coronavirus Aid, Relief, and Economic Security (CARES) Act will boost gross domestic product (GDP) by 88 cents per dollar of budgetary cost from fiscal year 2020 through fiscal year 2023. In CBO's estimation, that assistance will boost GDP by 0.5 percent in 2020 and by 0.2 percent in 2021.

The agency also estimates that more support to state and local governments would further boost GDP in the short term by reducing the size of the tax increases and spending cuts that will be required for many state and local governments to balance their budgets. To the extent that it adds to federal deficits and debt, such support could cause the nation's output to be lower than what it would otherwise be in the long term.

CBO has not fully analyzed the effects of the $915 billion in additional funding for state and local governments that would be provided by H.R. 6800, the Health and Economic

Recovery Omnibus Emergency Solutions (HEROES) Act, as passed by the House of Representatives on June 1. CBO's assessment of the effects on GDP from funding for state and local governments in that act would differ from its assessment of the effects of the CARES Act. For example, the outlays from the funds provided by the HEROES Act would probably occur when social distancing restrictions are less stringent, and therefore the positive effects on output per dollar of stimulus would probably be larger than the positive effects of the CARES Act funding. On the other hand, the HEROES Act would provide substantially more funds and states would have greater flexibility in using them than those provided by the CARES Act; states might choose to use them to postpone tapping into their rainy day funds or increasing taxes. If funds provided by the HEROES Act were used in that way, they would have a smaller effect per dollar on GDP than the funds provided by the CARES Act, which state and local governments largely used to increase purchases of goods and services. [3]

Question. State budget shortfalls for FY21, which began on July 1 for most states, are deeper than the shortfalls faced during the Great Recession. Would the existing assistance Congress has passed be sufficient to cover those projected shortfalls? How many states have lost state and local government jobs during the pandemic? If state and local job layoffs persist or the rate of employment growth for state and local governments continues to be slow, what impact would that have on GDP and the U.S. long-term economic recovery?

Answer. The pandemic and associated social distancing measures have had a significant impact on the finances of state and local governments by reducing current and projected tax revenues and creating additional demands for spending. CBO estimates that the direct assistance provided by pandemic-related federal legislation will be disbursed to state and local governments during calendar year 2020. Most of that assistance was provided for specific purposes and will amount to less than state and local governments lose in tax revenues this year.

According to information from the National Conference of State Legislatures (NCSL), most states have enacted legislation to appropriate additional funding for coronavirus-related tasks. NCSL reports that 13 states have drawn money from their reserves ("rainy day funds") and 30 states have instituted across-the-board budget cuts.

State and local government employment declined by 13,000 in November and was 1.3 million (or 6.8 percent) below its February level. If state and local government layoffs persist or if job growth is muted, state and local government purchases of goods and services—which accounted for roughly 11 percent of GDP in 2019 and was primarily the compensation paid by those governments to their employees—would not quickly recover to its pre-pandemic level.[4] A decline or slow growth in real (inflation-adjusted) state and local government purchases would slow the economic recovery.

3. The HEROES Act, H.R. 925, as passed by the House of Representatives on October 1, 2020, would also provide additional funding for state and local governments. CBO's analysis of that provision would be similar to the analysis of the provision in H.R. 6800.

4. In the national income and product accounts, the Bureau of Economic Analysis (BEA) reports government spending in three ways: government purchases (which BEA officially refers to as government consumption expenditures and gross investment), government current expenditures, and total government expenditures. For more information, see Bureau of Economic Analysis, "BEA Seems to Have Several Different Measures of Government Spending. What are They for and What do They Measure?" (May 28, 2010), www.bea.gov/help/faq/552. State and local governments' purchases have been about three-quarters of their total spending over the past few years. State and local governments' total spending includes some items, such as Medicaid expenditures, that are not included in state and local governments' purchases but are instead transfers to people.

Question. Varying estimates, including CBO's, have projected the 2017 Tax Cuts and Jobs Act would add close to $2 trillion to the U.S. national debt. Does the recession the U.S. is experiencing due to COVID-19 impact those estimated costs of the 2017 tax cuts?

Answer. In April 2018, CBO estimated that the tax act would increase the deficit by $1.9 trillion over the 2018–2028 period. That estimate considered all changes to revenues and outlays, including the effects of macroeconomic feedback and changes in debt-service costs.[5]

CBO has not updated those estimates nor has the agency done a comprehensive analysis of how the recent economic downturn or the subsequent legislative changes would affect the estimates. However, the CARES Act temporarily suspended several provisions of the 2017 tax act that would have reduced the deficit had they remained in effect. Those provisions relate to the way businesses can use net operating losses to offset taxable income. Changes that CBO has made to its economic forecast would also affect the estimated costs of the tax act. Recessions tend to reduce the budgetary costs of provisions that reduce taxes because the incomes on which those taxes are levied are generally smaller. In addition, the decline in interest rates that has occurred since the onset of the coronavirus pandemic will reduce the government's cost of servicing the national debt.

Question. How much has the TCJA added to the national debt?

Answer. In April 2018, CBO projected that the 2017 tax act would increase the deficit by $1.9 trillion over the 2018–2028 period; that estimate included the effects of macroeconomic feedback and changes in debt-service costs. Those cumulative annual deficits were anticipated to total $664 billion through fiscal year 2020.[6] CBO has not subsequently updated those estimates.

Although information is now becoming available from tax returns filed for the 2018 tax year—the first returns that reflect most of the changes made by the tax act—assessing the act's effects on overall receipts in a comprehensive manner is challenging. Many other factors influence economic growth and thus alter receipts, including changes in trade policies implemented by the Administration that have tamped down business investment and economic growth, the economic effects of the pandemic, and the government's response to it. It would be difficult to disentangle the impacts of the tax act from these subsequent developments.

Question. How much is the TCJA projected to add if the expiring provisions are extended?

Answer. All revenue estimates of proposed tax law changes are provided by the staff of the JCT. As part of CBO's report *An Analysis of the President's 2021 Budget*, JCT estimated that extending certain provisions of the 2017 tax act that are set to expire in 2025 would increase cumulative deficits by $1.2 trillion through 2030.[7] However, those estimates were completed before the onset of the economic disruption caused by the pandemic and actions taken by the government in response.

5. See Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), Appendix B, www.cbo.gov/publication/53651.

6. Ibid.

7. See Congressional Budget Office, *An Analysis of the President's 2021 Budget* (March 2020), www.cbo.gov/publication/56278.

Question. Did the deficit-financed tax cuts put us in a stronger position to respond to this recession?

Answer. Although the 2017 tax act increased budget deficits, policymakers currently have the ability to use fiscal policy to respond to the recession (in addition to the CARES Act and other legislation enacted so far). The 2017 tax act has ongoing effects on the economy. The effects of the changes that act made to corporate and personal tax rates that boost the productive potential of the U.S. economy (including higher investment spending and increased labor supply) will continue through the recovery and subsequent expansion. However, the personal tax cuts in the law are scheduled to expire after 2025. Depending on the state of the economy at that time, the expiration of those tax cuts might have negative effects on the economy (such as reduced overall demand and output) in the short term, but positive effects (because of smaller deficits) in the long term. In addition, the larger deficits and debt caused by the act may constrain policymakers' choices in the future.

Question. Does CBO expect a "K-shaped recovery" from COVID-19, where higher-income Americans see a close to full or full recovery and lower-income Americans are left behind? How has the inflation rate of certain categories of goods impacted low-income Americans? For example, would rising prices of groceries have a disproportionate impact on Americans with less wealth? If Congress pursues another COVID-19 relief package, what is the most cost-effective policy Congress can pursue that would also address the situation facing low-income Americans?

Answer. The recovery from the 2020 recession could look different than the previous two recoveries (those starting in 2002 and 2009) because the nature of the most recent downturn was very different than the previous two. First, in those recessions, the contraction of activity was distributed widely across the economy and lasted for much longer. The most recent recession, however, was very deep but short, and its negative effects were concentrated in occupations and industries with large shares of low-wage jobs. Second, during the previous two recessions, higher-income households experienced the greatest proportional losses to income, but those same households also saw the largest gains in recovery. By contrast, lower-income households have borne the brunt of the impact of the pandemic and the subsequent recession, in terms of both health and economic effects.[8] Early data indicate that, on average, higher-income households remain relatively less affected.

Because the 2020 recession affected people at different income levels differently, the recovery period is also likely to differ for higher-income and lower-income people. The shape of the recovery for low-income households will depend on many factors, especially the course of the pandemic and the structural economic changes that might occur because of it. Persistent changes in the demand and supply of different services may require the reallocation of workers and capital within and among companies, industries, and regions. On the one hand, for example, if the travel and tourism industries suffer a permanent reduction in demand, the burden of adjustment—lower employment and income—will fall on the workers and the regions most affected. On the other hand, the pandemic could recede more quickly (perhaps because of a vaccine) and structural dislocations could turn out to be minor. Compared to the two previous recoveries, growth in employment and wages might be more rapid, which would reduce the negative consequences of the pandemic for low-income households.

8. Specifically, the largest job losses occurred in low-wage service industries, such as leisure and hospitality and retail sales, which require a high degree of in-person contact. Of those workers who retained their jobs in such industries, lower-wage workers occupied a disproportionate share of the jobs that involve elevated risks of exposure to the coronavirus.

Other pandemic-related problems pose risks to the long-term well-being of lower-income people:

- Adapting to changes in the economy may be costly and take a period of years. In labor markets, that slow process of adjustment might increase unemployment rates for an extended period and so weaken the bargaining position of workers.

- The difficulties associated with juggling intermittent income and childcare are especially acute for lower-income households with school-age children (especially single-parent families) and those with uneven access to affordable health care.

- Children from lower-income households will be more likely to suffer from hunger and malnutrition and lose access to meaningful schooling, particularly in areas where schools are operating remotely. The harm of remote schooling is skewed disproportionately to children who are already most disadvantaged in our society.

Additionally, since lower-income Americans spend a larger share of their income on food, they would be particularly affected by a large increase in the price of groceries relative to other goods. The price of groceries rose considerably more rapidly than the prices of most other goods in the first few months of the pandemic, which potentially added to the unequal burden borne by lower-income families. However, that spike in grocery prices was concentrated in the prices of a few goods, such as beef, so some families may have substituted for those items with other lower-cost products. Grocery prices have fallen from their peak in June, and CBO expects only modest growth in grocery prices over the next several quarters.

Fiscal policy can provide a safety net to help lower-income households. In the current situation, unemployment benefits and direct transfers of cash targeted at low-income households can most help such households. In the long term, the prospects for economic growth and its distribution are uncertain, and the effects of any policy will depend on its design and implementation.

Question. Does Congress' failure to renew expiring COVID-19 relief programs threaten to undo the stimulus effect of the programs or exacerbate the economic damage caused by COVID-19?

Answer. The expiration of pandemic relief programs will lead to slower growth and a weaker job market in early 2021. CBO analyzed expiring coronavirus relief programs in its September report *The Effects of Pandemic-Related Legislation on Output*.[9] The agency estimated that by providing financial support to households, businesses, and state and local governments, those programs will raise real GDP this year and next. However, those programs will reduce the level of real GDP in the long term (because of the larger federal debt).

In CBO's assessment, additional legislation that followed the same broad contours of the expiring relief programs would have similar effects, although the degree to which output was affected in the short term would depend on a number of factors, including the precise parameters embedded in the legislation and when it was enacted. The effects would also depend on the size of the stimulus: A very large stimulus might result in diminishing returns in the short term.

9. See Congressional Budget Office, *The Effects of Pandemic-Related Legislation on Output* (September 2020), www.cbo.gov/publication/56537.

Question. How much money has President Trump's four executive orders (i.e., payroll tax deferral, student loan deferral, housing assistance, and disaster benefit assistance/unemployment compensation) provided to American households? How does the $44 billion in disaster relief funds provided by the Trump Administration compare to the additional $600-a-week jobless benefits established by the *CARES Act*, both in terms of dollar amount and impact on economic growth?

Answer. The President's actions allowed use of up to $44 billion in disaster relief funds for unemployment benefits; to date, about $36 billion of that total has been spent. CBO estimates that outlays for Federal Pandemic Unemployment Compensation (FPUC), which provided additional benefits of $600 per week of unemployment to unemployed people through July 2020, will total $291 billion.[10] The agency also estimates that the net effect of those enhanced unemployment benefits will be to boost GDP by 67 cents for each one-dollar increase in budgetary cost.[11]

The President also deferred payments, interest accrual, and involuntary collections on certain federal student loans through December 31, 2020. Changes to the student loan program are recorded on a present-value basis (pursuant to the Federal Credit Reform Act of 1990); the Administration has recorded a cost of $14.6 billion for those deferrals.

In addition, the President allowed employers to defer withholding and payment of workers' payroll taxes for Social Security from September 1 to December 31, 2020, for workers generally making under $104,000 per year. That action changed the timing of some tax payments but not the amounts owed. CBO has not estimated the effect of the executive action on revenues but does not expect it to have a significant effect on the agency's next revenue baseline projection.

The President also directed federal agencies to consider actions they could take to prevent evictions. The Centers for Disease Control and Prevention responded by issuing an order that temporarily halted evictions of covered people from residential properties for nonpayment of rent through the end of the year. The executive order provided no additional budgetary resources.

Question. As Congress negotiated and passed coronavirus-related relief legislation in March and April, foremost in our minds was the health and safety of our constituents and bolstering American families with the economic resources needed to weather this ongoing crisis, not concerns about propping up Gross Domestic Product. As the CBO points out in its September report "The Effect of Pandemic-Related Legislation on Output": "In addition to affecting overall economic activity as measured by real GDP, the legislation will affect other important aspects of the economy and people's well-being." Critical among the efforts in our coronavirus relief measures were extended unemployment benefits to help the over 61 million Americans, including 1.4 million Virginians, who have filed initial claims for unemployment since the pandemic began. The expanded federal assistance has made all the difference for millions of Americans in keeping food on the table, being able to pay rent, and affording prescription drugs. The CBO asserts that several factors complicate analysis of whether enhanced unemployment compensation disincentivizes work and output, namely high unemployment and social distancing.

10. See Congressional Budget Office, *An Update to the Budget Outlook* (September 2020), www.cbo.gov/publication/56517.

11. See Congressional Budget Office, *The Effects of Pandemic-Related Legislation on Output* (September 2020), www.cbo.gov/publication/56537.

Have you seen any evidence to contradict Yale's Tobin Center for Economic Policy's July finding of "no evidence that more generous benefits disincentivized work either at the onset of the expansion or as firms looked to return to business over time?" Since Pandemic Unemployment Assistance (PUA) expired in July, have you seen greater gains in employment for workers whose enhanced UI benefits were more generous or has it remained consistent across wage levels? Have you seen evidence of decreased consumption spending in the economy overall?

Answer. The Yale study reflected a mix of supply and demand effects and focused on the earliest days of the pandemic shock through early May, which largely predates the reopening of most states.[12] CBO considers its general findings to be broadly consistent with the agency's view of the events that occurred in the early stages of the pandemic.

As states have reopened since May, the generosity of the unemployment compensation may have discouraged some furloughed or laid off workers from returning to the workforce—the Yale study would miss that trend because of the limitations of the data it considers. For example, the Beige Book released by the Federal Reserve Board in July reported that "[c]ontacts in nearly every District noted difficulty in bringing back workers because of health and safety concerns, childcare needs, and generous unemployment insurance benefits."[13] The May report contained similar language. The latest Beige Book (released in September) noted that "[f]irms continued to experience difficulty finding necessary labor, a matter compounded by day care availability, as well as uncertainty over the coming school year and jobless benefits."[14] In addition, the Census Bureau's Small Business Pulse Survey shows that in August and September, 8 to 9 percent of small businesses surveyed reported that their operating capacity was affected by their "ability to re-hire furloughed or laid off employees and/or hire new employees."[15]

Overall, when forming its views on the likely effects of the CARES Act's unemployment insurance provisions over a longer time horizon, CBO relied on a large body of pre-existing literature in economics and on current research (including the Yale study), which vary significantly in data sources, methodology, and time frame of the analysis. The earlier literature tended to find that increased unemployment insurance payments reduced labor supply—although in times of severe economic downturn, CBO expects that the negative effect on employment will be partially or even fully offset by the positive effect of those payments on the demand for labor.

In the current context, it is particularly difficult to assess the impact of the generosity of the unemployment compensation on labor supply because of the health risks posed by the pandemic and other confounding factors such as the lack of childcare. It is also unclear how much the expiration of enhanced unemployment benefits has affected employment among people at different wage levels. Complex effects of the other government programs—such as

12. See Joseph Altonji and others, *Employment Effects of Unemployment Insurance: Generosity During the Pandemic* (Tobin Center for Economic Studies, July 2020), https://tinyurl.com/y3mkataz (PDF, 2 MB).

13. See Federal Reserve District, *The Beige Book: Summary of Commentary on Current Economic Conditions* (July 2020), p. 1, https://go.usa.gov/x7S5J; and *The Beige Book: Summary of Commentary on Current Economic Conditions* (May 2020), p. 1, https://go.usa.gov/x7S5t.

14. See Federal Reserve District, *The Beige Book: Summary of Commentary on Current Economic Conditions* (September 2020), p. 1, go.usa.gov/xArMt.

15. See Census Bureau, "Small Business Pulse Survey" (October 15, 2020), https://portal.census.gov/pulse/data/#weekly.

the Paycheck Protection Program—on employment have also complicated data interpretation in recent months.

Federal Pandemic Unemployment Compensation, which provided additional benefits of $600 a week, expired in July (although some people continued receiving an add-on to their unemployment benefits through lost wages supplemental assistance funding). Since FPUC's expiration, CBO has not seen convincing evidence of a decrease in consumption spending in the economy overall. However, there has been a slowdown in the *growth* of overall consumption spending. Both official data and new, timelier but more variable, real-time indicators of consumer spending have confirmed that the gains in consumer spending have been smaller in each successive month since June. The observed slowing in the growth of consumer spending is broadly similar to what CBO built into its July current-law projections, which reflected the assumption that FPUC would expire in July. The main reason that CBO expected the growth of overall consumer spending to slow is because, without a vaccine, recovery in many types of service activities is constrained by continued social distancing. In addition, CBO anticipated that reduced income due to expiring programs would limit the spending of affected households, most particularly of people who are unemployed.

Question. In CBO's report discussing effects of pandemic-related legislation on output and enhanced unemployment benefits, CBO mentions the complicating factor of workers' legitimate, grounded fear of contracting and transmitting COVID-19 as depressing output. Specifically, CBO stated: "All of these efforts are complicated by the extent of social distancing and the fact that workers considering a return to work may weigh the risk of increasing their exposure to the coronavirus. That could result in employers' offering higher wages than they would have otherwise, which would reduce the effect of enhanced unemployment benefits on work incentives and ultimately on output." While workers often merit higher pay, the U.S. needs to fundamentally address the root cause of fears surrounding COVID-19: that many workplaces are not safe. Virginia has adopted first-in-the-nation, enforceable workplace safety standards for COVID-19, mandating sanitation, face covering, social distancing, and notification protocols to prevent the spread of COVID-19. To that end, would a nationwide, emergency workplace safety standard help return higher levels of output?

Answer. CBO has not analyzed the effect of changes in workplace safety standards on GDP; such an effect would depend on how the standards were designed and implemented. Economic growth during the pandemic depends in part on employees' willingness to work in the face of the current health risks and in part on employers' willingness and ability to provide safe working conditions for their employees. Steps that made people feel safer working during the pandemic would therefore enhance economic growth. A nationwide standard is one possible step of that type.

Senator Whitehouse

Question. In January 2020 CBO projected that federal health spending over the next decade will be $4.7 billion lower than your 2010 estimates extrapolated out to this budget window. Would you agree that comparing CBO's 2020 baseline with the 2010 baseline extrapolated out to the current window is a logical way to estimate changes in health projections?

Answer. Comparing a 2010 baseline with a 2020 baseline is complicated. In CBO's baseline projections from August 2010—the first projections published after the enactment of the ACA—only one year, 2020, overlaps with CBO's August 2020 baseline projections.

Therefore, a straightforward comparison of the two baselines is possible only for that year. In its August 2010 projections, CBO estimated that mandatory spending for the two broad budget categories covering the major health care programs—function 550 (Health, mostly Medicaid) and function 570 (Medicare)—would be $1,489 billion in 2020. In CBO's August 2020 baseline projections, the agency estimated that such spending would total $1,296 billion in 2020, or 13 percent less than the amount CBO projected in 2010.

CBO classifies changes in its baseline projections in three categories: legislative changes, which result from the enactment of new laws; economic changes, which stem from updates to the agency's economic forecast; and technical changes, which reflect all other updates to the agency's projections. The $192 billion difference between the two federal health care projections for 2020 is the net effect of a $220 billion reduction due to economic and technical changes and a $28 billion increase due to legislative changes. The largest technical revision that CBO incorporated into its August 2020 baseline projections of federal health spending was the slowdown in health care spending growth; however, there were many other technical revisions. For example, CBO also reduced its projections of subsidies provided through the Affordable Care Act marketplaces because the actual number of people receiving subsidies was smaller than anticipated.

One way to extrapolate the August 2010 projections over a longer period of time is to use projections from CBO's 2010 *Long-Term Budget Outlook*, which includes those of federal outlays for major health care programs through 2035.[16] (Outlays for major health care programs consist of spending for Medicare, Medicaid, and CHIP, as well as outlays for premium tax credits and related spending associated with the health insurance marketplaces.) In those long-term projections made in 2010, CBO estimated that federal outlays for major health care programs would increase from 6.9 percent of GDP in 2020 to 8.7 percent of GDP in 2030. In its August 2020 baseline projections, the agency projected that federal outlays for major health care programs would increase from 6.1 percent of GDP in 2020 to 6.9 percent of GDP in 2030. (Nominal GDP was projected to average $25.7 trillion over the 2021–2030 period and to reach $30.7 trillion in 2030.) The differences between those two sets of projections illustrate that the rate of growth for federal spending on health programs has slowed significantly since 2010, but CBO has not analyzed how much of the difference between the projections is due to legislative changes, to updates to the agency's economic forecast, and to technical changes.

Question. While a portion of this difference relates to the repeal of the individual mandate and other policy changes, much of it appears to result from a sustained slowdown in health spending growth in recent years. In your January 2020 budget outlook, CBO noted that "The reasons for that slowdown are not clear." I think the slowdown prior to the COVID-19 pandemic is evidence that structural changes in the delivery of care – many of which were ushered in by the Affordable Care Act – have taken hold and we are seeing lower federal spending as a result. For example, Coastal Medical in Rhode Island, a Medicare Accountable Care Organization, has saved $25 million since 2015 and has done so while increasing services and improving the quality of care their patients receive. I think it's important for CBO to tease out what is responsible for this significant, sustained slowdown in federal health spending growth. What is CBO doing to better understand the causes of the sustained slowdown in federal health care spending?

16. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010), www.cbo.gov/publication/21546.

Answer. CBO is monitoring the research literature and consulting with outside experts to increase its understanding of the causes of the slowdown in the growth of federal health care spending. For example, CBO invited Professor David Cutler of Harvard University to discuss that topic at the annual meeting of its Panel of Health Advisers in September 2019. Dr. Cutler pointed out that although a significant amount of research has been conducted to identify the causes of the slowdown in the growth of federal health care spending, a definitive conclusion has not been reached.

In CBO's estimation, the evidence points most clearly to two causes: decreases in the growth of Medicare payment rates and reduced spending on cardiovascular diseases due to better management of those conditions. CBO believes that the payment and delivery systems adopted by both public and private insurers that reward providers for delivering high quality care efficiently (rather than rewarding them for the number of services they provide) have also contributed to the slowdown in the growth of federal health care spending to some extent. However, it is challenging to estimate the magnitude of the effects of those payment and delivery systems because they may have led to systemwide changes in the practice of medicine that are difficult to attribute to any specific policies. CBO recognizes that understanding changes in health spending and the relationship between those changes and policy actions is an area of continuing Congressional interest. The agency is continuing to evaluate the research literature.

Medicare Payment Rates. Slower growth of Medicare payment rates has been a major factor contributing to the slowdown in the growth of Medicare spending in various ways. The ACA permanently reduced the annual payment updates in the Medicare fee-for-service (FFS) program for hospitals and other institutional providers by the projected growth in economy-wide productivity. (The ACA imposed additional reductions in the updates to payment rates through 2019 that varied by year and were, on average, smaller than the productivity-related reductions.) Those reductions in payment rate growth in the FFS program also slowed the growth of spending in the Medicare Advantage (MA) program, because benchmarks in the MA program are tied to per capita spending in the FFS program. The ACA also changed the method for establishing MA benchmarks, thereby reducing payments to MA plans. Additionally, the Budget Control Act of 2011 led to other across-the-board reductions in Medicare payments to providers through sequestration.

Those decreases in the growth of payment rates directly slowed the growth of Medicare spending by reducing the amount paid for each service. The slowdown in the growth of payment rates might have also contributed to a slowdown in the growth of the volume and complexity of services delivered. In a review of the literature CBO conducted to develop its capability to model the effects of implementing a single-payer health care system, the agency found that, on balance, the evidence indicates that providers respond to lower payment rates by reducing the quantity of services they provide.[17] The evidence is mixed, however, so CBO will investigate the issue more thoroughly in the coming year by continuing to monitor the research literature on how providers respond to changes in payment rates and by analyzing historical data on Medicare spending, payment rates, and utilization.

Spending on Cardiovascular Disease. A recent study suggests that greater use of medications to control risk factors for cardiovascular diseases may have played an important role in the

17. See CBO's Single-Payer Health Care Systems Team, *How CBO Analyzes the Costs of Proposals for Single-Payer Health Care Systems That are Based on Medicare's Fee-For-Service Program*, Working Paper 2020-08 (December 2020), www.cbo.gov/publication/56811.

slowdown in the growth of federal health care spending.[18] That study estimated that half of the slowdown in per capita spending among elderly Medicare beneficiaries from 1999 to 2012 was the result of slower growth in spending for cardiovascular diseases. The authors also estimated that half of the slowdown in hospitalizations for cardiovascular conditions was the result of greater use of medications to control risk factors such as hypertension, high cholesterol, and diabetes.

That study did not, however, investigate the reasons for the increased use of medications for cardiovascular disease among the elderly. One possible reason is that the implementation of the Medicare prescription drug benefit (Part D) in 2006 lowered out-of-pocket costs for prescription drugs for many seniors. In addition, some medications for cardiovascular diseases lost patent protection during the study period and less expensive generic versions became available. CBO has previously concluded that greater use of prescription drugs among Medicare beneficiaries reduces Medicare spending on medical services.[19] (That insight is incorporated in cost estimates such as that for the Elijah E. Cummings Lower Drug Costs Now Act, in which lower drug prices and out-of-pocket costs lead to increased use of drugs and thus less spending on other medical services).[20]

More research is needed to fully understand the reasons for the slowdown in the growth of spending on cardiovascular disease and to understand the relative roles of greater use of medications, lifestyle changes, and other factors. Additional research is also needed to understand the causes of changes in spending growth on other conditions. CBO will continue to monitor the research literature to improve its understanding of how the use of prescription drugs affects spending on medical services.

New Payment and Delivery Systems. The ACA instituted a variety of changes to payment and delivery systems including the Medicare Shared Savings Program for Accountable Care Organizations (ACOs) and other quality-based payment incentives. The ACA also established the Center for Medicare & Medicaid Innovation (CMMI) to test new payment models and delivery systems. Those changes built upon a decades-long shift in Medicare payment policy away from cost-based reimbursement to prospective payment. The changes instituted by the ACA also built upon earlier efforts by public and private insurers to adopt alternative payment and delivery approaches intended to reward providers for delivering care efficiently.

It is likely that those changes in payment and delivery methods led to structural changes in the health care system that contributed to the slowdown in the growth of federal health care spending, but the available evidence indicates that the changes in payment and delivery systems instituted by the ACA have not—by themselves—significantly reduced the growth of Medicare spending. For example, the most recent evidence indicates that ACOs have achieved only modest savings for Medicare after accounting for the shared savings bonuses they received.[21] CBO will continue to monitor the evidence on the effects of the payment and delivery systems in the ACA (including the models tested by CMMI) as well as evidence in the research literature on how other changes in payment and delivery systems implemented by public and private insurers have affected health care spending.

18. See David Cutler and others, "Explaining the Slowdown in Medical Spending Growth Among the Elderly, 1999–2012," *Health Affairs*, vol. 38, no. 2 (February 2019), pp. 222–229, https://tinyurl.com/y4nau678.

19. See Congressional Budget Office, *Offsetting Effects of Prescription Drug Use on Medicare's Spending for Medical Services* (November 2012), www.cbo.gov/publication/43741.

20. See Congressional Budget Office, cost estimate for H.R. 3, the Elijah E. Cummings Lower Drug Costs Now Act (December 10, 2019), www.cbo.gov/publication/55936.

21. See J. Michael McWilliams and others, "Medicare Spending After 3 Years of the Medicare Shared Savings Program," *New England Journal of Medicine*, vol. 392, no. 12 (September 20, 2018), pp. 1139–1149, https://doi.org/10.1056/NEJMsa1803388.

Question. Medicare Accountable Care Organizations like Coastal Medical in Rhode Island, have great flexibility to develop and implement innovative care models. In particular, ACOs are uniquely positioned to test preventive care models and demonstrate that coordinated care management and data collection can improve quality performance, including patient outcomes. Yet traditional fee-for-service Medicare is left behind when it comes to making similar investments because CBO's current "scoring" process discounts the savings of preventive health initiatives beyond the traditional 10-year scoring window. How can CBO modernize the way you score preventative health care?

Answer. Because Congressional budget enforcement procedures generally apply to a 10-year period, CBO estimates typically also have a 10-year window. However, the effects of some policies—health improvements and corresponding budgetary effects, for example—could occur outside the 10-year period. The occurrence of those budgetary effects and how they materialized over time would depend on the specific preventive medical service that was targeted. Potential long-term effects of proposed policies are certainly worth considering, even though they are not addressed by the current budget process. In some cases, such as a tax on tobacco products, CBO has analyzed the longer-term effects of a given policy.[22]

CBO analyzes legislative proposals on a case-by-case basis, considering the details of each proposal and drawing on relevant data and evidence. When estimating the effects of a proposal affecting preventive medical services, CBO has to assess factors such as the number of people who would use the preventive medical service in response to a policy, the average changes in health care spending and other outcomes, and the associated budgetary effects. In some cases, making those assessments is hindered by a lack of information, data, or empirical evidence, which in turn makes it difficult to estimate how a given intervention would affect federal spending.

There are some instances for which CBO has estimated that a policy to increase use of a preventive health service would be associated with a reduction in spending. One such example is a provision in the ACA that introduced coverage of tobacco cessation services for pregnant women under Medicaid. CBO estimated that the provision would reduce federal spending for that program by $100 million over the 2010–2019 period.[23] More recently, CBO analyzed a policy that would create a new Medicare benefit option that would cover the cost of immunosuppressive drugs for kidney transplant patients who had no other health insurance or drug coverage. On the one hand, use of immunosuppressive drugs could be considered part of treatment after a kidney transplant, but on the other hand, it could also be considered preventive care because those drugs prevent graft failure and subsequent need for dialysis treatments. CBO estimated that the creation of that new benefit would reduce spending for Medicare by $400 million over the 2021–2030 period.[24] In both cases, CBO estimated that the increase in federal costs associated with the policy would be outweighed by reductions in costs stemming from averted use of health care services.

Although increasing the use of preventive medical services may often improve people's health, it does not necessarily reduce federal spending. In most cases, reductions in federal spending

22. See Congressional Budget Office, *Raising the Excise Tax on Cigarettes: Effects on Health and the Federal Budget* (June 2012), www.cbo.gov/publication/43319.

23. See the Congressional Budget Office, letter to the Honorable Nancy Pelosi providing an estimate for H.R. 4872, the Reconciliation Act of 2010 (Final Health Care Legislation), Table 5 (March 20, 2010), www.cbo.gov/publication/21351.

24. See Congressional Budget Office, cost estimate for H.R. 5534, the Comprehensive Immunosuppressive Drug Coverage for Kidney Transplant Patients Act of 2020 (November 2, 2020), www.cbo.gov/publication/56726.

from averted use of health care services are smaller than the increase in federal costs of covering the preventive service for a broad set of patients. In June 2020, CBO released a report entitled *How CBO Analyzes Approaches to Improve Health Through Disease Prevention*, which provides a detailed description of the methods CBO has developed to estimate the budgetary effects of policies that affect preventive services.[25] That report also describes the results of a systematic review of the literature on the effects of preventive medical services and a detailed description of how CBO estimates the budgetary effects of policies that affect such services. Based on its review of the literature, which includes hundreds of studies, CBO concluded that many preventive services improve health, but only a small proportion of preventative services reduce costs. Specifically, the agency found that 20 percent of preventive medical services improve health and reduce costs; 60 percent provided clinical benefits that many people in the health care community considered to be reasonable relative to their costs, *but which did not reduce those costs*; and 20 percent either increased costs by an amount too large to justify their health benefits or worsened health.

Question. Over the last several months, there have been numerous new reports out detailing the serious economic risks of climate change.

- In January, the Bank of International Settlements, the central bank for central banks, issued a report on climate-related economic risk in which it stated, "[C]limate change is a source of major systemic financial risks;" "[C]limate catastrophes are even more serious than most systemic financial crises;" and "Exceeding climate tipping points could lead to catastrophic and irreversible impacts that would make quantifying financial damages impossible."

- In January, McKinsey issued a report on climate-related economic risk in which it stated, "Intensifying climate hazards could put millions of lives at risk, as well as trillions of dollars of economic activity and physical capital, and the world's stock of natural capital.

- In January, the Stanford Graduate School of Business released a report in which it stated, "global economic losses from climate change could reach $23 trillion—three or four times the scale of the 2008 financial crisis."

- In September, the Commodity Futures Trading Commission released a report on climate-related economic risks in which it stated, "Climate change poses a major risk to the stability of the U.S. financial system and to its ability to sustain the American economy. Climate change is already impacting or is anticipated to impact nearly every facet of the economy, including infrastructure, agriculture, residential and commercial property, as well as human health and labor productivity. Over time, if significant action is not taken to check rising global average temperatures, climate change impacts could impair the productive capacity of the economy and undermine its ability to generate employment, income, and opportunity."

In light of the severe potential financial and economic costs of climate change, does it make economic sense to roll back regulations limiting greenhouse gas emissions?

Answer. CBO has assessed the economic and budgetary impacts of various policies intended to reduce greenhouse gas emissions. For instance, the agency has analyzed the potential

25. See Congressional Budget Office, *How CBO Analyzes Approaches to Improve Health Through Disease Prevention* (June 2020), www.cbo.gov/publication/56345.

impacts of carbon taxes, cap-and-trade programs, funding for research and development, and regulatory approaches such as a clean electricity standard.[26] However, CBO has not conducted a cost-benefit analysis of any specific regulations intended to limit greenhouse gas emissions. Both costs and benefits would depend on specifics of the regulation (including its stringency and the extent to which it would motivate emission reductions in a cost-effective manner) and on the actions taken by other countries.

Policymakers' choices about climate change will involve tradeoffs between the climatic effects of greenhouse gas emissions (on GDP and aspects of people's future well-being not captured in GDP) and the cost of ameliorating those effects through regulations or other actions. CBO projects that the continued emission of greenhouse gases will, on net, reduce average annual real GDP growth from 2020 to 2050 relative to growth under the climatic conditions that prevailed at the end of the 20th century.[27] That annual growth differential will accumulate to a 1.0 percent reduction in the projected level of real GDP in 2050, CBO estimates.

That estimate is a central projection, which means that it represents the middle of a wide range of potential outcomes. Consistent with the best available research, CBO's approach allows for both positive and negative effects of climate change; however, it does not incorporate every possible effect of climate change on GDP and is subject to substantial uncertainty. The uncertainty around those estimates and the potential for substantial damage increase over time. In addition, climate change may affect people's well-being in ways that are not measured in GDP, such as premature mortality changes.

Question. The number of climate-related natural disasters continues to grow. In just the last two months, we've seen Hurricanes Laura and Sally devastate parts of the Gulf Coast while unprecedented wildfires have burned through communities in California and the Pacific Northwest. Do you believe it is economically sustainable to have to spend tens or hundreds of billions of dollars per year on disaster relief?

Answer. When disasters occur, lawmakers face choices about whether to provide disaster assistance and how much to spend. Increased frequency and severity of disasters are expected to increase calls for disaster spending in the future. In particular, damage from hurricanes is expected to increase significantly in the coming decades because of the effects of both climate change and increased coastal development. In turn, requests for federal relief and recovery efforts may potentially increase as well.

In 2016, CBO estimated that, over time, the costs associated with hurricane damage will increase more rapidly than the economy will grow.[28] Consequently, hurricane damage will rise as a share of GDP, which provides a measure of the nation's ability to pay for that

26. See, for example, Congressional Budget Office, *Options for Reducing the Deficit: 2019 to 2028* (December 2018), pp. 292–294, www.cbo.gov/publication/54667; *Federal Support for the Development, Production, and Use of Fuels and Energy Technologies* (November 2015), www.cbo.gov/publication/50980; *Effects of a Carbon Tax on the Economy and the Environment* (May 2013), www.cbo.gov/publication/44223; *Effects of Federal Tax Credits for the Purchase of Electric Vehicles* (September 2012), www.cbo.gov/publication/43576; *The Effects of Renewable or Clean Electricity Standards* (July 2011), www.cbo.gov/publication/41451; and cost estimate for H.R. 2454, American Clean Energy and Security Act (June 5, 2009), www.cbo.gov/publication/41189.

27. See Evan Herrnstadt and Terry Dinan, *CBO's Projection of the Effect of Climate Change on U.S. Economic Output*, Working Paper 2020-06 (Congressional Budget Office, September 2020), www.cbo.gov/publication/56505.

28. See Congressional Budget Office, *Potential Increases in Hurricane Damage in the United States: Implications for the Federal Budget* (June 2016), www.cbo.gov/publication/51518.

damage. According to the agency's estimates, expected annual damage currently amounts to 0.16 percent of GDP; by 2075, that figure reaches 0.22 percent. (Changes in expected damage reflect the increase in the probability of a major hurricane making landfall in the United States and that if one did make landfall, damage would probably be greater as a result of higher sea levels and increased coastal development; actual damage will vary substantially from year to year.) Roughly 45 percent of that increase is attributable to climate change and 55 percent to coastal development. The uncertainty associated with those estimates is substantial and increases over time.

CBO estimated annual federal spending for relief and recovery as a percentage of expected hurricane damage. If that percentage stays roughly the same as it was from 2005 to 2015 (the period used as the basis of CBO's 2016 federal spending estimates), relief and recovery spending would rise from 0.10 percent of GDP under current conditions to 0.13 percent of GDP in 2075. Such an increase would be equivalent to about $6 billion, measured as a share of GDP in 2020. If federal spending as a percentage of hurricane damage changed, those amounts could be larger or smaller.

Resources devoted to disaster relief and recovery could otherwise be used productively elsewhere in the economy. As a result, an increase in hurricane damage to buildings, infrastructure, or other capital could dampen future economic growth in the United States.[29]

Question. In CBO's report on the Effects of Pandemic-Related Legislation, you project that the related bills passed by Congress in 2020 would increase GDP by 3.1% in 2021. What else should Congress be doing now to support economic recovery in 2021 and beyond?

Answer. CBO can analyze alternative policy proposals and their effects on the economy, but in keeping with its mandate to provide objective and impartial analysis, the agency does not make policy recommendations.

Question. Small businesses are particularly important to Rhode Island's economy, and over the last several months, I have heard from many businesses about their struggles throughout the pandemic and the uncertainty about their future. The PPP program ended on August 8, without additional assistance many small businesses will continue to struggle and could potentially close in the months ahead.

- If Congress fails to provide our nation's small businesses with additional assistance to get them through the rest of the year or longer, how would that affect the economy in 2021 and beyond? How would that affect the unemployment rate?

- Do you agree that providing small businesses with more assistance now would help stave off even more economic pain later?

Answer. The effects of more assistance to small businesses would depend on the design and implementation of those policies. CBO analyzed how support provided by recent legislation affected small businesses in its report entitled *The Effect of Pandemic-Related Legislation on Output* and a related paper entitled *Key Methods That CBO Used to Estimate the Effects of*

29. See Evan Herrnstadt and Terry Dinan, *CBO's Projection of the Effect of Climate Change on U.S. Economic Output*, Working Paper 2020-06 (Congressional Budget Office, September 2020), p. 2, www.cbo.gov/publication/56505; and Congressional Budget Office, *Potential Increases in Hurricane Damage in the United States: Implications for the Federal Budget* (June 2016), www.cbo.gov/publication/51518.

Pandemic-Related Legislation on Output.[30] In those analyses, CBO estimated that for every dollar of budgetary cost, the PPP and related provisions increased GDP by 36 cents from fiscal year 2020 through 2023 (the majority of which is projected to occur in the second half of 2020). The PPP was projected to save 106 million job-weeks in 2020 (a job-week is one week of work for an average worker whose job had been lost due to the pandemic).

Additional assistance for small businesses would boost the economy and reduce unemployment in 2021. The magnitude of those effects would depend on the form and amount of the assistance. However, a deficit-financed fiscal stimulus would also decrease output in the long term in several ways: It would add to the already growing stock of debt, increase interest rates, and crowd out private investment. Those long-term effects would be modest over the next few years because interest rates are expected to remain low as a result of actions taken by the Federal Reserve.

Question. Many state and local governments have faced financial difficulties as a result of the costs of the pandemic and decreases in tax revenue. Without further assistance to state and local governments to help offset the fiscal issues caused by the pandemic we risk additional job losses in our communities and the elimination of essential services. If state and local governments do not receive additional relief and are forced to take drastic measures to make up for budget shortfalls caused by the pandemic, how would that affect the national economy next year?

Answer. The pandemic and the associated social distancing measures have significantly affected the finances of state and local governments by reducing current and projected tax revenues and creating additional spending demands. CBO estimates that the direct assistance already provided by pandemic-related legislation will be disbursed to state and local governments during calendar year 2020; most of that assistance was provided for specific purposes and will amount to less than the governments lose in tax revenues this year. In the 2007–2009 recession and subsequent recovery, state and local governments experienced similar fiscal pressure. They responded mainly by reducing spending on education, health, and social services. Some of those reductions were achieved by cutting public-sector employment.[31]

State and local government employment declined by 13,000 in November and was 1.3 million (or 6.8 percent) below its February level. If state and local government layoffs persist or if job growth is muted, state and local government purchases of goods and services—which accounted for roughly 11 percent of GDP in 2019 and is primarily the compensation paid by those governments to their employees—would not quickly recover to its pre-pandemic level.[32] A decline or slow growth in real (inflation-adjusted) state and local government purchases would slow the economic recovery.

30. See Congressional Budget Office, *The Effect of Pandemic-Related Legislation on Output* (September 2020), www.cbo.gov/publication/56537; and John Seliski and others, *Key Methods That CBO Used to Estimate the Effects of Pandemic-Related Legislation on Output*, Working Paper 2020-07 (Congressional Budget Office, October 2020), www.cbo.gov/publication/56612.

31. For details, see Tracy Gordon, "State and Local Budgets and the Great Recession" (December 31, 2012), https://tinyurl.com/y4aqzcvj.

32. In the national income and product accounts, the Bureau of Economic Analysis (BEA) reports government spending in three ways: government purchases (which BEA officially refers to as government consumption expenditures and gross investment), government current expenditures, and total government expenditures. For more information, see Bureau of Economic Analysis, "BEA Seems to Have Several Different Measures of Government Spending. What are They for and What do They Measure?" (May 28, 2010), www.bea.gov/help/faq/552. State and local governments' purchases have been about three-quarters as large as their total spending over the past few years. State and local governments' total spending includes some items, such as Medicaid expenditures, that are not included in state and local governments' purchases but are instead transfers to people.