GAO

STATE AND LOCAL GOVERNMENTS' FISCAL OUTLOOK

2015 Update

GAO's State and Local Fiscal Simulations

Fiscal sustainability presents a national challenge shared by all levels of government. GAO simulations of long-term fiscal trends in the state and local government sector—published since 2007—have consistently shown that state and local governments face long-term fiscal pressures. Absent any policy changes, the state and local government sector faces a gap between expenditures and receipts in future years. Closing this gap will require state and local governments to make policy changes to assure that receipts are at least equal to expenditures.

GAO's model uses Bureau of Economic Analysis's (BEA) National Income and Product Accounts (NIPA) as the primary data source and presents the results in the aggregate for the state and local sector as a whole. The model shows the level of receipts and expenditures for the sector until 2064 based on current and historical spending and revenue patterns. The model assumes that the current set of policies in place across state and local government remains constant to show a simulated long-term outlook. GAO's model incorporates Congressional Budget Office (CBO) economic projections, which capture near-term cyclical swings in the economy. Because the model covers the sector in the aggregate, the fiscal outcomes for individual states and localities cannot be captured. This product is part of a body of work on the nation's long-term fiscal challenges. Related products can be found at <http://www.gao.gov/fiscal_outlook/state_local_fiscal_model/overview#t=2>

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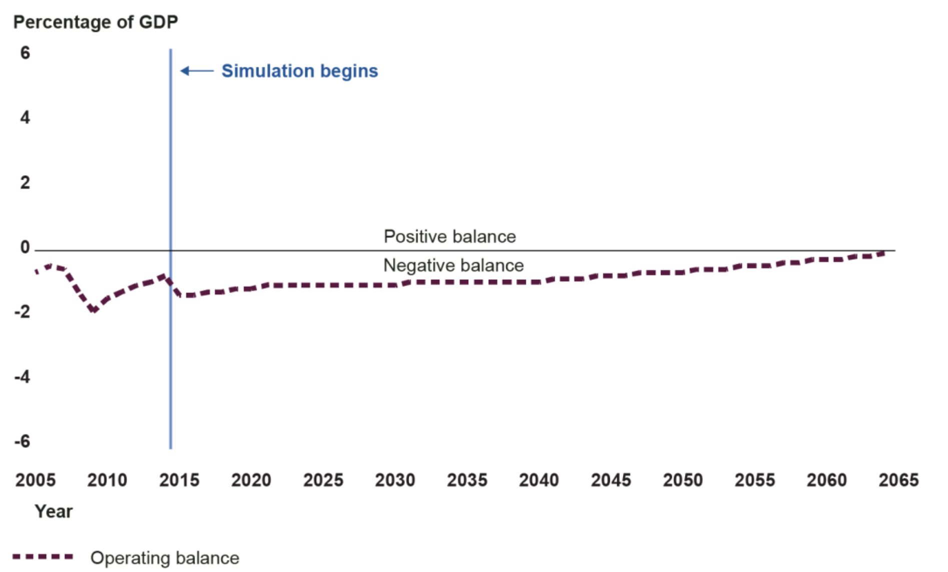
The state and local government sector continues to face fiscal challenges which contribute to the nation's overall fiscal challenges. As shown in figure 1, GAO's simulations suggest that the sector could continue to face a gap between revenue and spending during the next 50 years, and that state and local governments would need to make substantial policy changes to avoid these fiscal imbalances in the future. The simulation assumes that the tax structure is unchanged in the future and that the provision of real government services per capita remains relatively constant.

Figure 1: State and Local Simulated Operating Balance Measure, as a Percentage of Gross Domestic Product (GDP)



Sources: GAO calculations using Bureau of Economic Analysis data and GAO simulations, updated December 2015. | GAO-16-260SP

Notes: Historical data from 2005 to 2014 are from Bureau of Economic Analysis's (BEA) National Income and Product Accounts (NIPA). GAO's simulations are from 2015 to 2064, using many Congressional Budget Office (CBO) projections and assumptions, particularly for the next 10 years. The simulated operating balance is a measure of the sector's ability to cover its current expenditures out of current receipts. The simulated operating balance measure is all receipts, excluding funds used for long-term investments, minus current expenditures. To develop this measure, GAO subtracts funds used to finance longer-term projects—such as investments in buildings and roads—from receipts since these funds would not be available to cover current expenses. Similarly, GAO excludes capital-related expenditures from spending. While most states have requirements related to balancing their budgets, deficits can arise because of unanticipated events such as recessions. These deficits can occur because the planned annual revenues are not generated at the expected rate, demand for services exceeds planned expenditures, or both, resulting in a near-term operating deficit. States have tapped fiscal reserves to cope with revenue shortfalls during recessions, as indicated by their reported total balances, which are composed of general fund ending balances and amounts in state budget stabilization "rainy day" funds. Figure 1 depicts the state and local simulated operating balance only, and does not include fiscal reserves or other budget measures used to cope with revenue shortfalls.

In the long-term, our model suggests that at current rates, total tax revenues for the sector—as a percentage of gross domestic product (GDP)—will not return to the 2007 historical high until 2047. This long-term outlook reflects an increase in state and local tax receipts in recent years. Specifically, from the second quarter of 2009 to the second quarter of 2015, total tax receipts increased 14 percent in real dollars. Income and sales taxes accounted for most of the growth, increasing 37 percent and 18 percent respectively, in real dollar terms during the same period. Furthermore, during the last year, from the second quarter of 2014 to the second quarter of 2015, total tax receipts increased 3 percent and income tax receipts increased 10 percent in real dollars. However, real estate values remain suppressed and property tax receipts continued to lag, decreasing 3 percent in real dollars from the second quarter of 2009 to the second quarter of 2015.

A primary driver of the sector's operating balance in the long term is the rising health-related costs of state and local expenditures on Medicaid and the cost of health care compensation for state and local government employees and retirees. Since most state and local governments are required to balance their operating budgets, the fiscal conditions indicated by our simulations continue to suggest that the sector would need to make substantial policy changes to avoid fiscal imbalances in the future. That is, absent any intervention or policy changes, state and local governments are facing, and will continue to face, a gap between receipts and expenditures in the coming years.

Declines in state and local pension asset values stemming from the 2007 to 2009 economic recession could also affect the sector's long-term fiscal position. Using real dollars, pension asset values increased almost 4 percent from 2013 through 2014, from approximately $2.82 trillion in 2013 to $2.92 trillion in 2014. Pension assets for 2014 now exceed the 2007 historical high of $2.91 trillion. In our past work, we reported that while most state and local government pension plans have assets sufficient to cover benefit payments to retirees for a decade or more, plans have experienced a growing gap between assets and liabilities.[1] In response to this gap, state and local governments are taking steps to manage their pension obligations, including reducing benefits and increasing employees' contributions.

[1]GAO, *State and Local Government Pension Plans: Economic Downturn Spurs Efforts to Address Costs and Sustainability,* GAO-12-322, (Washington, D.C.: Mar. 2, 2012).

Policy Changes Required in the State and Local Government Sector to Maintain Long-Term Fiscal Balance

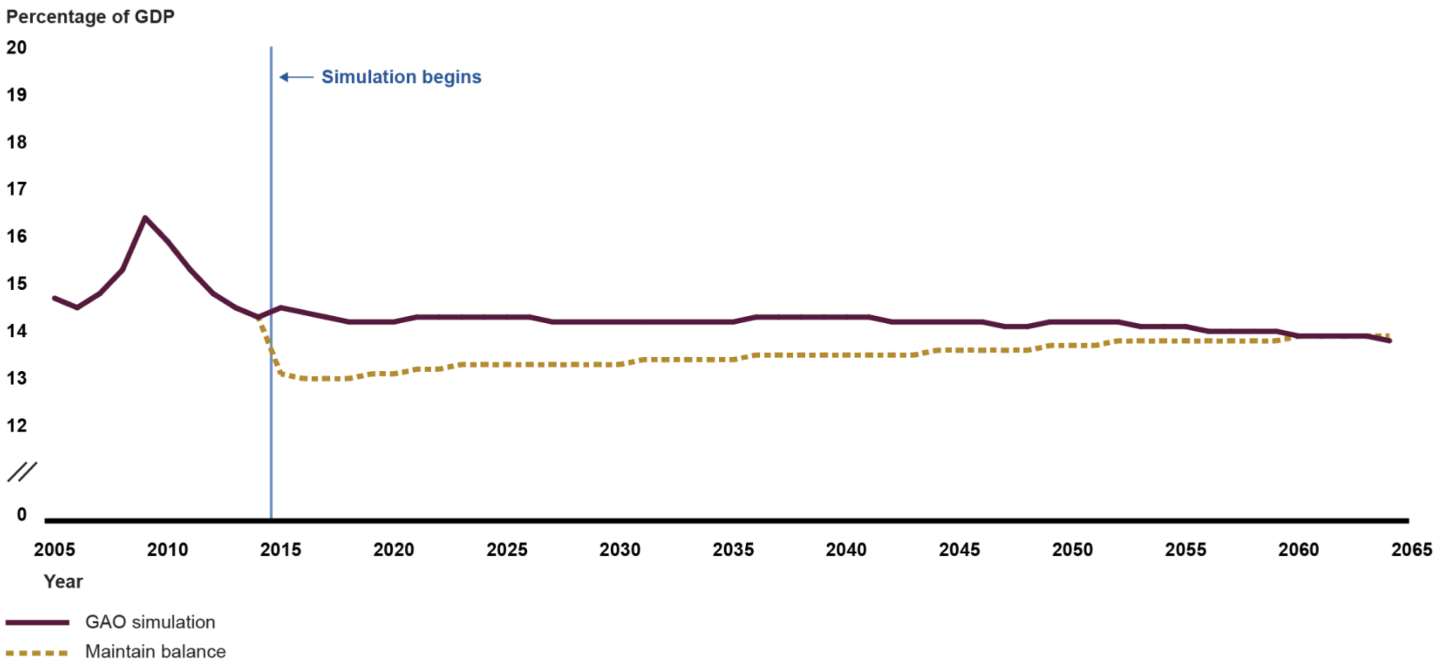
One way of measuring the long-term fiscal challenges faced by the state and local government sector is through a measure known as the "fiscal gap."[2] The fiscal gap is an estimate of actions that must be taken today and maintained for each year going forward to achieve fiscal balance during the next 50 years. We measured the gap as the amount of spending reductions needed to prevent negative operating balances. As shown in figure 2, under our simulation, state and local expenditures remain near current levels as a percentage of GDP during the simulation time frame.[3] Under our simulation, we calculated that closing the fiscal gap would require action to be taken today and maintained for each year equivalent to a 5 percent reduction in the state and local government sector's current expenditures. Closing the fiscal gap through revenue increases would require action of similar magnitude through increases in state and local tax revenues. More likely, closing the fiscal gap would involve some combination of both expenditure reductions and revenue increases.[4]

[2]The fiscal gap for the state and local model is calculated for the years 2015 to 2064.

[3]As noted earlier, in our simulation, we assumed that the tax structure does not change in the future and that the provision of real government services per capita remains roughly constant.

[4]The "maintain balance" spending path shown in figure 2 is illustrative. Our model assumes no economic effects from closing the state and local fiscal gap. Because abrupt spending declines or tax increases would likely have negative effects on both state and local governments and the economy as a whole, the adjustments needed to achieve fiscal balance would likely need to be adopted gradually.

Figure 2: State and Local Government Action Required to Maintain Balance (Expenditure Reductions, as a Percentage of GDP)



Sources: GAO calculations using Bureau of Economic Analysis data and GAO simulations, updated December 2015. | GAO-16-260SP

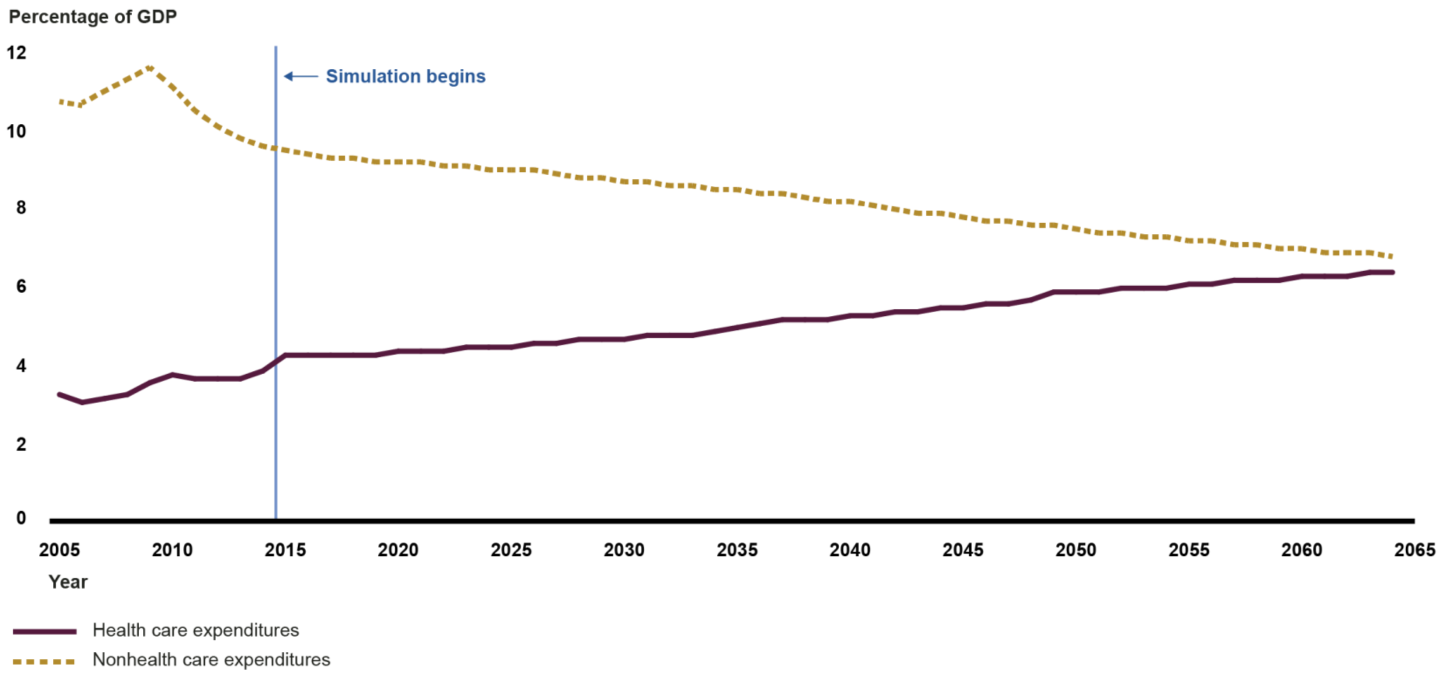
Notes: Historical data from 2005 to 2014 are from BEA’s NIPA. Our simulations are from 2015 to 2064, using many CBO projections and assumptions, particularly for the next 10 years. Closing the fiscal gap would require action to be taken today and maintained for each year equivalent to a 5 percent reduction in the state and local government sector’s current expenditures.

State and Local Governments Continue to Face Fiscal Challenges from Estimated Growth in Health-Related Costs

Our simulations show that a primary driver of long-term fiscal challenges for the state and local government sector continues to be the growth in health-related costs. Specifically, state and local Medicaid expenditures and the cost of health care compensation for state and local government employees and retirees generally grow at a rate that exceeds GDP.[5] The model's simulations suggest that the sector's health-related costs will be about 4.2 percent of GDP in 2015 and 6.3 percent of GDP in 2064. From 2015 through 2064, Medicaid expenditures are expected to increase on average by 0.6 percentage points more than GDP—referred to as excess cost growth. Other health related receipts and expenditures, including health care compensation for state and local government employees and retirees are expected to increase on average by 1.2 percentage points more than GDP each year from 2015 to 2027 and then begin to decline, reaching 0.6 percentage points in 2064. In contrast, other types of state and local government expenditures in our model—such as wages and salaries of state and local workers—decline as a percentage of GDP. Our simulations indicate that the sector's nonhealth related costs will be about 9.4 percent of GDP in 2015 and about 6.7 percent of GDP in 2064. Our simulations for health-related and other expenditures are shown in figure 3.

[5]The health-related cost growth assumption in our model includes adjustments in response to the March 2010 passage of the Patient Protection and Affordable Care Act. Pub. L. No. 111-148, 124 Stat. 119 (Mar. 23, 2010) (PPACA), as amended by the Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, 124 Stat. 1029 (Mar. 30, 2010) (HCERA). In this report, references to PPACA include any amendments made by HCERA. Our model assumes health care excess cost growth for Medicaid of about 0.2 percent for 2015 to 2024, and about 0.7 percent from 2025 to the end of our simulation period. Rates are based on national health care expenditure projections consistent with current law assumptions in the Medicare Board of Trustees 2015 report.

Figure 3: Health and Nonhealth Expenditures of State and Local Governments, as a Percentage of GDP

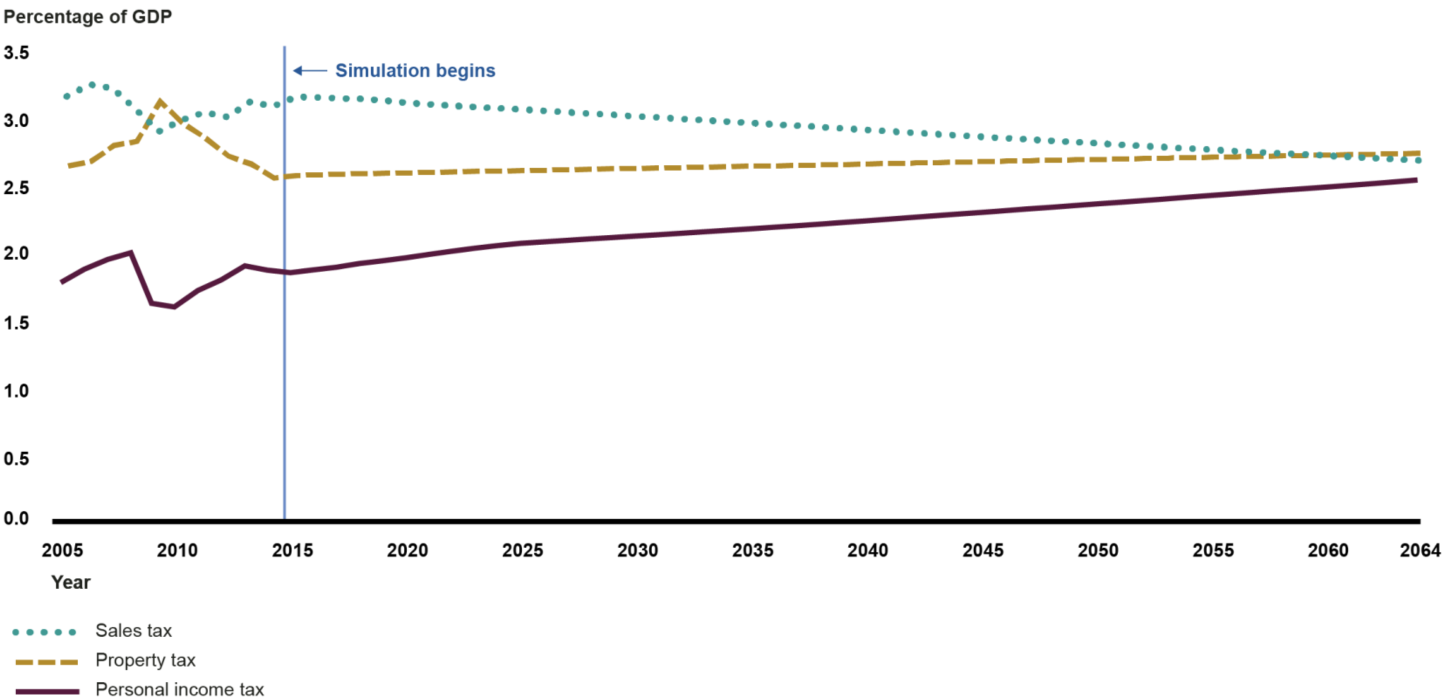


Sources: GAO calculations using Agency for Healthcare Research and Quality data and Bureau of Economic Analysis data, and GAO simulations, updated December 2015. | GAO-16-260SP

Notes: Historical data from 2005 to 2014 are from BEA's NIPA. Our simulations are from 2015 to 2064, using many CBO projections and assumptions, particularly for the next 10 years.

With regard to revenue growth over the long-term, our simulations suggest that, excluding Medicaid grants from the federal government, state and local sector total revenues (which include non-Medicaid federal grants), would gradually decline as a percentage of GDP. At the same time, some categories of tax receipts would gradually increase as a percentage of GDP. For example, property tax receipts may increase slightly from 2.6 percent of GDP to 2.8 percent of GDP over the next 50 years, but at current rates would remain below the 2009 peak level of 3.0 percent of GDP through 2060. Sales tax receipts on the other hand, are shown in our simulations to gradually decline as a percentage of GDP during the same period, as shown in Figure 4.

Figure 4: Selected State and Local Government Tax Receipts, as a Percentage of GDP



Sources: GAO calculations using Bureau of Economic Analysis data and GAO simulations, updated December 2015. | GAO-16-260SP

As we have reported in prior work, the effect of the Patient Protection and Affordable Care Act (PPACA) on the long-term state and local fiscal outlook is uncertain and may depend on the states' implementation of PPACA and on future rates of health care cost growth.[6] For example, under PPACA, a number of states have opted to expand their Medicaid program coverage to millions of lower income adults.[7] While the federal

[6]GAO, *State and Local Governments' Fiscal Outlook: December 2014 Update,* GAO-15-224SP, (Washington, D.C.: Dec. 17, 2014).

[7]Under PPACA, states may expand Medicaid coverage to non-pregnant individuals under age 65 who have household incomes that do not exceed 133 percent of the federal poverty level. PPACA also imposes a 5 percent income disregard when calculating income, which, in effect, raises this income limit to 138 percent of the federal poverty level. States that implement this expansion receive an increased federal match, starting at 100 percent in 2014, gradually decreasing to 90 percent in 2020. 42 U.S.C. §§ 1396a(a)(10)(A)(i)(VIII), 1396a(e)(14)(I), 1396d(y). As of September 2015, thirty states have expanded their Medicaid programs. See *GAO, Medicaid: Additional Federal Controls Needed to Improve Accuracy of Eligibility Determination and for Coordination with Exchanges,* GAO-16-157T, (Washington, D.C.: Oct. 23, 2015).

government is expected to cover a large share of the costs of the Medicaid expansion, states are ultimately expected to bear some costs during a period when their budgets are already under pressure. Given both the financial incentives and disincentives for states to participate in the Medicaid expansion, what the remaining states will decide to do regarding the expansion under PPACA is unknown. CBO has also noted that the future underlying rate of the health care cost growth remains uncertain.[8]

Data, Methodology, and Equation Updates Used in Our 2015 State and Local Model Simulations

This update of the state and local government fiscal model used NIPA data prepared by BEA as the primary data source, along with data from the Board of Governors of the Federal Reserve System, the Bureau of Labor Statistics, the Census Bureau, the Centers for Medicare and Medicaid Services (CMS), CBO, the Office of Tax Analysis, and the Social Security Administration (SSA). These data sources are the same data sources we used for past updates. We used observations on the United States as a whole, so we treat the state and local government sector as a single unit of analysis rather than treating individual state and local governments as separate units of analysis. We used annual observations through 2014 where available.

Our model simulated the level of receipts and expenditures for the state and local government sector as a whole in future years based on current and historical spending and revenue patterns. Using the same methodology we used in prior updates, we simulated each major category of state and local government receipts and expenditures. Our simulations of key variables were consistent with the growth path for these variables developed by CBO, CMS, and SSA where possible. Otherwise, we developed our own assumptions about the likely future growth path of the variables in our model. Overall, our model assumes current policies remain in place. A detailed explanation of the model is available in appendixes I through IV of GAO, State and Local Governments: Growing Fiscal Challenges Will Emerge during the Next 10 Years, GAO-08-317 (Washington, D.C.: January 2008). Updates to the equations used in the model were listed in subsequent reports, including

[8]For further information on the future underlying rate of health care cost growth, see *GAO, Patient Protection And Affordable Care Act: Effect on Long-Term Federal Budget Outlook Largely Depends on Whether Cost Containment Sustained*, GAO-13-281, (Washington, D.C.: Jan. 31, 2013).

- GAO, State and Local Governments’ Fiscal Outlook: December 2014 Update, GAO-15-224SP (Washington, D.C.: December 2014).
- GAO, State and Local Governments’ Fiscal Outlook: April 2013 Update, GAO-13-546SP (Washington, D.C.: April 2013).
- GAO, State and Local Governments’ Fiscal Outlook: April 2012 Update, GAO-12-523SP (Washington, D.C.: April 2012).
- GAO, State and Local Governments’ Fiscal Outlook: April 2011 Update, GAO-11-495SP (Washington, D.C.: April 2011).
- GAO, State and Local Governments’ Fiscal Outlook: March 2010 Update, GAO-10-358 (Washington, D.C.: March 2010).
- GAO, State and Local Fiscal Challenges: Rising Health Care Costs Drive Long-term and Immediate Pressures, GAO-09-210T (Washington, D.C.: November 19, 2008).

State and Local Government Receipts

We simulated the future growth path of the five types of state and local government revenues: tax receipts, contributions to government insurance, income on financial assets, transfer receipts, and the surplus or deficit from government enterprises. We updated some of the equations we used to simulate tax receipts to maintain internal consistency and reflect the historical relationships in the revised NIPA data (see table 1). The equations we used to simulate the other types of revenues are the same equations we used in our prior reports.

Table 1: Estimates of Historical Relationships Used to Simulate State and Local Government Tax Receipts

Tax or tax base	Simulation approach	Estimated historical relationship
State personal income tax receipts	We simulated real state personal income tax receipts using the estimated historical elasticity of these receipts with respect to real taxable personal income, while also controlling for real federal capital gains tax receipts. We did not adjust state personal income tax receipts for policy changes, as we have done in past years, because we determined that outliers in the policy change data in recent years made it unreliable for this purpose.	Our estimated elasticity of real state personal income tax receipts with respect to real taxable personal income was 1.25, the same value as in the prior update.
State and local sales tax receipts other than general sales tax receipts	We simulated real state and local sales tax receipts other than general sales tax receipts using the estimated historical elasticity of these receipts with respect to real total income from wages and salaries.	Our estimated elasticity of real state and local sales tax receipts other than general sales tax receipts with respect to real total income from wages and salaries changed from 0.86 to 0.87.
State and local general sales tax base, personal consumption expenditures less food, services, and electronic and mail-order sales	We simulated the real general sales tax base—real personal consumption expenditures less food, services, and electronic and mail order sales—using the estimated historical elasticity with respect to real wages and salaries.	Our estimated elasticity of the sales tax base—personal consumption expenditures less food, services, and electronic and mail order sales—with respect to real wages and salaries changed from 0.92 to 0.91.
Real state and local property tax base, the real market value of real estate and other property outstanding excluding business equipment	We simulated the real property tax base—the real market value of real estate and other property outstanding excluding business equipment—using the estimated historical elasticity with respect to real gross domestic product.	Our estimated elasticity of the real property tax base—the real market value of real estate and other property outstanding excluding business equipment—with respect to real gross domestic product was 1.05, the same value as in the prior update.

Source: GAO analysis. | GAO-16-260SP

State and Local Government Expenditures

We simulated the future growth path of the five types of state and local government expenditures: consumption expenditures, transfer payments to persons (social benefits), interest paid on outstanding state and local government debt, subsidies, and purchases of fixed and nonproduced assets. We updated some of the equations we used to simulate the interest paid on outstanding state and local government debt to maintain internal consistency and reflect the revised NIPA data (see Table 2). The equations we used to simulate the other types of expenditures are the same equations we used in our prior reports.

Table 2: Updated Estimates of Historical Relationships Used to Simulate State and Local Government Interest Paid On Outstanding Debt

Interest rate or debt type	Simulation approach	Estimated historical relationship
Annual interest rate on state and local government 20-year general obligation bonds	We simulated the annual interest rate on state and local government 20-year general obligation bonds using the historical relationship between this rate, the lagged value of this rate, and the annual yield on 10-year Treasury notes.	Our estimate of the change in the annual interest rate on state and local government 20-year general obligation bonds associated with a 1 percentage point increase in the annual yield on 10-year Treasury notes changed from 0.41 to 0.39. Our estimate of the change in the annual interest rate on state and local government 20-year general obligation bonds associated with a 1 percentage point increase in the prior year's rate changed from 0.47 to 0.48.
Short term state and local government debt outstanding	We simulated short term state and local government debt outstanding using the estimated historical relationship between short term state and local government debt issuance as a fraction of gross domestic product and the change in state and local government net saving as a fraction of gross domestic product, controlling for years with unusual amounts of short term debt issuance.	Our estimate of the change in short term state and local government debt issuance as a fraction of gross domestic product associated with a one unit increase in the change in net saving as a fraction of gross domestic product remained -0.20, the same value as in the prior update.
Medium and long-term state and local government debt outstanding	We simulated medium and long-term state and local government debt outstanding using the estimated historical relationship between medium and long-term debt issuance as a fraction of the gap between state and local government gross investment and net purchases of nonproduced assets and federal investment grants and changes in the interest rate on state and local government 20-year general obligation bonds.	Our estimate of the change in medium and long-term debt issuance as a fraction of the gap between state and local government gross investment and net purchases of nonproduced assets and federal investment grants associated with a one percentage point change in the change in state and local government 20-year general obligation bonds changed from -0.078 to -0.077.
Outstanding federal government loans to state and local governments	We simulated outstanding federal government loans to state and local governments using the estimated historical elasticity of real outstanding federal government loans to state and local governments with respect to real gross domestic product.	Our estimated elasticity of outstanding federal government loans to state and local governments using the estimated historical elasticity of real outstanding federal government loans to state and local governments with respect to real gross domestic product remained -2.45, the same value as in the prior update.

Source: GAO analysis. | GAO-16-260SP

We conducted our work for this model update from July 2015 to December 2015 in accordance with all sections of our Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained and the analysis conducted provide a reasonable basis for any findings and conclusions.

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