The state and local government sector continues to face near-term and long-term fiscal challenges that grow over time. The fiscal challenges confronting the state and local sector add to the nation’s overall fiscal challenges. The fiscal situation of the state and local government sector has improved in the past year as the sector’s tax receipts have slowly increased in conjunction with the economic recovery. Nonetheless, total tax receipts have only recently returned to the prerecession levels of 2007 and the sector still faces a gap between revenue and spending. As shown in figure 1, the sector faces long-term fiscal challenges that grow over time. The model’s base case simulations show that the fiscal position of the sector will steadily decline through 2060 absent any policy changes.¹

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¹The “base case” simulation assumes that the tax structure is unchanged in the future and that the provision of real government services per capita remains relatively constant.
One of the primary factors contributing to the near-term improvement in the fiscal picture of the state and local government sector is the increase in tax receipts following the decline during 2008 and into 2009. Specifically, from the second quarter of 2009 to the third quarter of 2011, total tax receipts increased nearly 11 percent, returning to prerecession levels of 2007. Income and sales taxes accounted for most of the growth, increasing about 18 percent and 10 percent over the same period, respectively. However, property tax receipts, which had grown more than 3 percent from the second quarter of 2009 to the third quarter of 2010, flattened in 2011, increasing less than 1 percent from 2010 to 2011 as real estate values remained depressed. In addition, as most outlays from the American Recovery and Reinvestment Act of 2009 (Recovery Act) have already occurred, the state and local government sector will continue to adjust to a reduced level of federal assistance provided by the Recovery Act.\(^2\) This April 2012 update to our model incorporates these near-term changes for both revenues and expenditures but focuses primarily on the long-term fiscal outlook for state and local governments as a sector.

In the long term, the decline in the sector’s operating balance is primarily driven by 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 declining fiscal conditions shown in our simulations suggest that the sector would need to make substantial policy changes to avoid growing fiscal imbalances in the future. That is, absent any intervention or policy changes, state and local governments would face an increasing gap between receipts and expenditures in the coming years.

\(^2\)Pub. L. No. 111-5, 123 Stat. 115 (2009). In fiscal year 2011, the Department of the Treasury paid out $65.7 billion in Recovery Act funds for use in states and localities. For fiscal year 2012, GAO’s analysis of data from CBO, Federal Funds Information for States, and Recovery.gov estimates that $23.3 billion in Recovery funds will be paid out for use in states and localities.
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.” The fiscal gap is an estimate of the action needed today and maintained for each year to achieve fiscal balance over the next 50 years. We measured the gap as the amount of the spending reductions or tax increases needed to prevent operating deficits (or negative operating balances). As shown in figure 2, under the base case, expenditures rise considerably as a percentage of GDP over the simulation time frame. In contrast, maintaining balance solely through spending restraint would require holding expenditure growth to a much lower rate than the base case. We calculated that closing the fiscal gap would require action to be taken today and maintained for each year equivalent to a 12.7 percent reduction in state and local government current expenditures. Closing the fiscal gap through revenue increases would require action on that side of a similar magnitude.

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3The fiscal gap is calculated for the years 2013 to 2062.

4As noted earlier, in the “base case” simulation, we assume that the tax structure is not changed in the future and that the provision of real government services per capita remains roughly constant.

5The “maintain balance” spending path shown in figure 2 is only 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 need to be adopted gradually.
Figure 2: State and Local Government Action Required to Maintain Balance (Expenditures, as a Percentage of Gross Domestic Product—GDP)

Note: Historical data are from the Bureau of Economic Analysis’s (BEA) National Income and Product Accounts (NIPA). Data in 2011 are GAO estimates aligned with published data where available. GAO simulations are from 2012 to 2060, using many CBO projections and assumptions, particularly for the next 10 years.
The primary driver of fiscal challenges for the state and local government sector in the long term continues to be the projected growth in health-related costs. Specifically, state and local expenditures on Medicaid and the cost of health care compensation for state and local government employees and retirees are projected to grow more than GDP. See figure 3. The model's simulations show that the sector's health-related costs will be about 3.9 percent of GDP in 2012 and 7.1 percent of GDP in 2060. In contrast, our model shows that other types of state and local government expenditures—such as wages and salaries of state and local workers—are expected to decline as a percentage of GDP. The model projects that the sector’s non-health-related costs will be about 10.4 percent of GDP in 2012 and 7.8 percent of GDP in 2060. Our simulations for health-related and other expenditures are shown in figure 3.

Our simulations also showed that, consistent with our April 2011 update, revenue growth over the long term, excluding Medicaid grants from the federal government, is projected to decrease as a percentage of GDP.\(^7\) For example, non-Medicaid grants are projected to decline as a percentage of GDP. One difference in the current update relative to our April 2011 update relates to the slower growth of property tax receipts as a percentage of GDP. Specifically, the current model projects that property tax receipts, as a percentage of GDP, will be 2.89 percent in 2012 and 3.10 percent in 2060, compared to the 3.22 percent projected for 2060, in last year’s projections. In addition, our model projects that property tax receipts would not reach the 2009 peak level of 3.01 percent of GDP until 2039, reflecting the general downward trend in real estate values and property tax assessments in recent years.

\(^7\)Our most recent prior model update is GAO, State and Local Governments’ Fiscal Outlook: April 2011 Update, GAO-11-495SP (Washington, D.C.: Apr. 5, 2011).
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. Pension asset values increased by 26 percent, from $2.3 trillion at the end of 2008 to $2.9 trillion at the end of 2010. However, as of 2010, values have not recovered to match or exceed the 2007 value of $3.2 trillion. We recently 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. In response, state and local governments have begun taking a number of steps to manage their pension obligations, including reducing benefits and increasing member contributions.8

The state and local government sector's fiscal outlook will likely be affected by the implementation of the Patient Protection and Affordable Care Act (PPACA) in the long term.9 Exactly how the enacted legislation will affect state costs in the long term will continue to evolve and will likely vary among the states. State costs will likely increase most where current Medicaid eligibility requirements now provide less coverage than that required by PPACA, although other provisions in PPACA may decrease health-related costs. Further, the Social Security and Medicare Trustees (Trustees), the Congressional Budget Office (CBO), and CMS’s Office of the Actuary have expressed concerns about the effectiveness of certain cost-control measures over the long term in PPACA.

State and local governments may also be affected by the Budget Control Act of 2011, which enacted certain deficit reduction measures for the fiscal years 2012 to 2021.10 However, the degree to which this will affect the intergovernmental transfer relationship between the federal government and the state and local government sector is unclear.

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10Pub. L. No. 112-25, 125 Stat. 240 (2011). The Budget Control Act established limits on discretionary budget authority for the fiscal years 2012 through 2021. In addition, it specified additional limits on discretionary spending and automatic reductions in mandatory spending, including Medicare, which would take effect if lawmakers did not enact legislation originating from the Joint Select Committee on Deficit Reduction that would reduce projected deficits by at least $1.2 trillion. Because no such legislation was enacted, those procedures are now scheduled to go into effect.
Our long-term model results reflect the federal government assuming a greater share of state and local government health care expenditures (primarily Medicaid), approximately 60 to 63 percent in 2014 and beyond (on an aggregate basis). The state share is approximately 40 to 37 percent in 2014 and later years. Expressed as a share of GDP, our model simulates that the federal share of Medicaid costs will be about 2.0 percent of GDP in 2014 and 4.3 percent of GDP in 2060. In contrast, the state share expressed as a share of GDP represents 1.4 percent in 2014 and approximately 2.6 percent in the later years.

This update uses NIPA data prepared by BEA as a primary data source. Our state and local model simulates the level of receipts and expenditures for the sector in future years based on current and historical spending and revenue patterns. To develop these long-run simulations, we make simulations for each major receipt and expenditure category of the state and local government sector in future years. We simulate growth in each category of receipts and expenditures using CBO’s

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11In 2008, the most recent year data are available prior to the infusion of funds from the American Recovery and Reinvestment Act of 2009 (Recovery Act), the federal government share was approximately 58.1 percent and the state share was approximately 41.9 percent.


13The model incorporates data available after BEA’s comprehensive revision of NIPA in July 2009 and its annual revision of NIPA in August 2011.

14Key categories of receipts for state and local governments include several types of taxes (personal income, sales, property, and corporate), income on assets owned by the sector, and grants from the federal government. Categories of expenditures include wages and salaries of state and local employees, health insurance costs, pension costs, payments of social benefits (e.g., Medicaid and unemployment), depreciation expenses on state and local capital stock, interest payments on state and local financial debt, and other expenditures of the sector.
economic assumptions wherever possible.\textsuperscript{15} In several cases we were not able to obtain existing projections and needed to develop our own assumptions about the likely future growth path of certain receipts or expenditures. Overall, our model assumes current policies remain in place.

For this year’s update we changed our method and assumption for GDP growth in our simulations to a GDP growth assumption that matches the Trustees’ intermediate assumptions over the long term. This GDP growth assumption is more consistent with the growth in labor force, wages, and other factors underlying the Trustees’ Social Security and Medicare estimates used in our federal budget simulations. Previously, GDP in our model was determined by growth in the labor force, capital stock, and total factor productivity after the first 10 years, and projections of Social Security spending were adjusted accordingly.

In addition, for this year’s update we used data to estimate health care compensation costs for state and local government employees and retirees. We made projections on a pay-as-you-go basis for health care expenditures for the sector, in each year until 2060. Beginning with this update, to simulate health care compensation costs, we used estimates from BEA as a starting value of the sector’s health care expenditures on behalf of employees and retirees.

Finally, since our April 2011 model update, we made several adjustments in light of recent economic trends.\textsuperscript{16} Specifically, we reevaluated the relationships of our tax variables for the first time since our initial state and local fiscal model in 2007 and made a number of modifications based on this reevaluation.\textsuperscript{17} These modifications are summarized in table 1.


\textsuperscript{16}While the model’s key data sources and modifications to assumptions are discussed in this section of the report, a detailed explanation of the model’s methodology is available in apps. I–IV of GAO, \textit{State and Local Governments: Growing Fiscal Challenges Will Emerge during the Next 10 Years}, GAO-08-317 (Washington, D.C.: January 2008).

\textsuperscript{17}See GAO, \textit{State and Local Governments: Persistent Fiscal Challenges Will Likely Emerge within the Next Decade}, GAO-07-1080SP (Washington, D.C.: July 2007).
Table 1: Modifications to Assumptions for April 2012 Update

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original assumption</th>
<th>Updated assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond Buyer GO 20-Bond Municipal Bond Index (RMMUNIBB20)</td>
<td>Our standard approach for the Bond Buyer GO-20 Bond Municipal Bond Index has been to use an estimated relationship between that rate and the 10-year Treasury yield, with an adjustment for the amount by which the relationship under- or overpredicts the last historical value.</td>
<td>Because municipal bond rates were unusually high relative to Treasury yields in the year preceding our projections, our standard assumption results in what appears to be excessively high projections for the municipal bond rate. We added an adjustment factor that gradually brings the municipal bond rate below the 10-year Treasury note rate.</td>
</tr>
<tr>
<td>State personal income tax receipts (TXPGSTATE)</td>
<td>We simulated future state personal income tax receipts by estimating the long-run responsiveness, or elasticity, of receipts to taxable personal income. The long-run elasticity estimate depicts the extent to which tax receipts grow in response to income growth but does not capture their short-run reaction to changes in income over the business cycle.</td>
<td>Our updated estimated elasticity between state personal income tax and taxable personal income increased from 1.1067 to 1.1396, when controlling for both policy changes and unusual swings in capital gains tax receipts.</td>
</tr>
<tr>
<td>Real Estate Asset (REST_ALT)</td>
<td>Based on data for the market value of real estate, obtained from the sectors’ balance sheets in the Federal Reserve Board’s flow of funds accounts, we estimated that the long-run responsiveness, or elasticity, of property values to GDP is 1.1257.</td>
<td>Our estimated relationship between real-estate market value and GDP is used to estimate the future property tax base. Property tax grows with the property tax base in our model. The updated estimate showed a decrease in the elasticity between the property tax base and GDP, from 1.1257 to 1.0623.</td>
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<tr>
<td>Other sales tax receipts (TXIMGSLOTH)</td>
<td>Because the amount of the unit tax is adjusted only periodically, selective sales tax receipts tend to grow less rapidly than the value of the sales on which they are levied and less than incomes. Accordingly in previous updates, we estimated the responsiveness of selective sales tax receipts to income rather than the responsiveness of the tax base to income. Our estimates indicated that the long-run elasticity, based on historical data, was 0.8023.</td>
<td>Our estimated elasticity between other sales tax (excise/selective sales tax) and personal salary and wages showed an increase from 0.8023 to 0.8342 when incorporating the latest data.</td>
</tr>
<tr>
<td><strong>Federal investment grants (IGRANTCBO) and federal non-Medicaid grants or other federal grants (GFAIDSLO)</strong></td>
<td>We assume that federal investment grants grow at the same rate as CBO’s projections for federal capital transfers for the first 10 years. We project other federal grants by subtracting CBO’s Medicaid grant projections from CBO’s total grants for current expenditures. For both federal investment and other federal grants, we assume that grants grow with inflation plus population growth after the first 10 years.</td>
<td>To estimate federal investment grants, we multiply the January 2012 GDP projection with an estimate of each variable’s respective share of GDP derived from CBO’s most recently available projections. After the 10th year we assume investment grants grow with population plus inflation.</td>
</tr>
<tr>
<td><strong>Total state and local government retirement fund assets (L1TOTALFA)</strong></td>
<td>Our original assumption was to use the last year-end historical value of pension fund assets, along with other elements, to calculate the contribution that governments must make to fully fund employee pension benefits.</td>
<td>Because asset values can exhibit substantial volatility, governments typically smooth asset values in their pension funding calculations. Accordingly, in this update, we use the average value of pension fund assets over the previous 5 years to calculate the contribution rate needed to fully fund pensions.</td>
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<td><strong>Personal consumption (CBASE)</strong></td>
<td>We developed a broad consumption measure as a proxy for the tax base. The proxy used here is total consumption expenditures excluding food and services, because the two categories are often not part of the sales tax base. In addition, because the sales tax base has been negatively affected by increases in mail order and Internet purchases, we also used Census data to remove an estimate of remote sales from the tax base. We then estimated the long-run elasticity of this sales tax base with respect to aggregate wages and salaries using historical data.</td>
<td>Our estimated elasticity between personal consumption and wages and salary is used to estimate future consumption for the sales tax base. The sales tax base is used to estimate future general sales and other taxes. The updated equation shows the elasticity increased from 0.9267 to 0.9725 when incorporating the latest data.</td>
</tr>
<tr>
<td><strong>Employee Contribution (EECONPENR)</strong></td>
<td>In previous updates, our standard assumption was that employee contribution grows at the same rate as aggregate wages, thus keeping the contribution level constant as a share of aggregate wages.</td>
<td>To reflect the response to state and local pension cost pressures, we raise employee contributions in 2011 by the same amount that they rose in 2010 as a share of wages and hold the value constant thereafter.</td>
</tr>
</tbody>
</table>
In previous updates, our standard assumption for pension payments was based on the demographic changes and growth of beneficiaries (new retirees, continuing, and deceased) and wage growth. To reflect the response to state and local pension cost pressures, we let real pension benefit per recipient grow 1/10 of 1 percent slower than employees’ real wages.

We conducted our work for this model update from August 2011 to April 2012 in accordance with all sections of GAO’s 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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In addition to the contacts listed above, Michelle Sager (Acting Director), Richard Krashevski and Brenda Rabinowitz (Assistant Directors), Jason Vassilicos (analyst-in-charge), and Andrew Ching made significant contributions to this report.

This product is part of a body of work on the long-term fiscal challenges. Related products are listed below and can be found at www.gao.gov/special.pubs/longterm/longtermproducts.html.


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