GAO

STATE AND LOCAL GOVERNMENTS' FISCAL OUTLOOK

April 2011 Update

GAO's State and Local Fiscal Simulations

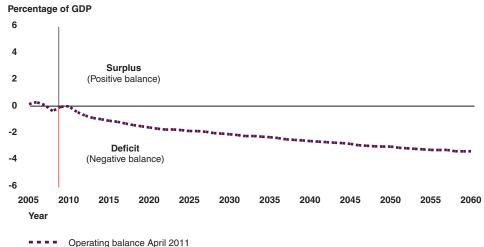
Fiscal sustainability presents a national challenge shared by all levels of government. Since 2007, GAO has published long-term fiscal simulations for the state and local government sector. These simulations show that, like the federal government, the state and local sector faces persistent and long-term fiscal pressures.

Using the Bureau of Economic Analysis's National Income and Product Accounts (NIPA) as the primary data source, GAO's model projects the level of receipts and expenditures for the sector until 2060 based on current and historical spending and revenue patterns. GAO assumes the current set of policies in place across federal, state, and local governments remains constant. The model simulates the longterm fiscal outlook for the state and local sector as a whole and, while the model incorporates the Congressional Budget Office's (CBO) economic projections, adjustments are made to capture the budgetary effects of nearterm 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 www.gao.gov/special.pubs/longterm.

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The state and local government sector continues to face near- 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 difficulties. Although the sector's near-term fiscal picture has improved slightly since our March 2010 update, the economic downturn has created an unprecedented fiscal situation for states as revenues declined in tandem with the economy. As we have reported in previous model updates, and as shown in figure 1, the sector faces long-term fiscal challenges that grow over time. The model's simulations show that the fiscal position of the sector will steadily decline through 2060 absent any policy changes.¹

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



Source: GAO simulations, updated April 2011.

Note: Historical data are from the Bureau of Economic Analysis's National Income and Product Accounts (NIPA) from 1980 to 2009. Data in 2010 are GAO estimates aligned with published data

Accounts (NIPA) from 1980 to 2009. Data in 2010 are GAO estimates aligned with published data where available. GAO simulations are from 2011 to 2060, using many Congressional Budget Office (CBO) projections and assumptions, particularly for the next 10 years. Simulations are based on current policy.

Since most state and local governments are required to balance their operating budgets, the declining fiscal conditions shown in our simulations suggest that these governments would need to make substantial policy changes to avoid growing fiscal imbalances. That is,

¹The operating balance is a measure of the sector's ability to cover its current expenditures out of current receipts. The operating balance measure is all receipts, excluding funds used for long-term investments, minus current expenditures. To develop this measure, we subtract 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, we exclude capital-related expenditures from spending.

absent any intervention or policy changes, state and local governments would face an increasing gap between receipts and expenditures in the coming years. One of the factors contributing to the near-term fiscal picture is the decline in the sector's tax receipts. Total tax receipts declined nearly 5 percent from 2008 to 2009. Personal income and sales taxes accounted for most of the 2009 decline, dropping about 16 percent and 5 percent respectively. In 2010, neither receipt category grew more than 2 percent.² In addition, 2010 total tax receipts still remained below their 2008 level as well as their 2008 share of Gross Domestic Product (GDP). This April 2011 update to our model incorporates these near-term revenue changes as well as recent expenditure data but focuses on the long-term outlook for state and local governments as a sector.³

The decline in the sector's operating balance over time is primarily driven by rising health-related costs. Because most state and local governments are required to balance their operating budgets, the declining fiscal conditions shown in our simulations suggest the fiscal pressures the sector faces and foreshadow the extent to which these governments will need to make substantial policy changes to avoid growing fiscal imbalances.

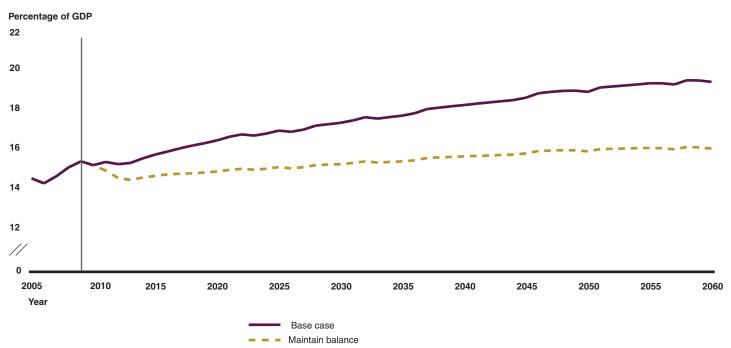
Substantial Policy Changes Needed in the State and Local Sector to Maintain Fiscal Balance One way of measuring the long-term challenges faced by the state and local sector is through a measure known as the "fiscal gap." The fiscal gap is an estimate of the action needed today and maintained for each year to achieve fiscal balance over a certain period. We measured the gap as the amount of the spending reductions or tax increases needed to prevent operating deficits (or negative operating balances). Figure 2 shows that under the base case, expenditures rise considerably 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 12.5 percent reduction in state and local government current expenditures. Closing the fiscal gap through revenue increases would require action of a similar magnitude through increased state and local tax receipts.

 $^{^2}$ Specifically, from 2009 to 2010 personal income tax receipts increased 1.45 percent and sales tax receipts increased 1.95 percent.

³The most recent prior model update is GAO, *State and Local Governments' Fiscal Outlook: March 2010 Update*, GAO-10-358 (Washington, D.C.: Mar. 2, 2010).

⁴The fiscal gap is calculated for the years 2011 to 2060.

Figure 2: Extent of State and Local Government Action Required to Maintain Balance (Expenditures, as a Percentage of Gross Domestic Product)



Source: GAO simulations, updated April 2011.

Note: Historical data are from the Bureau of Economic Analysis's National Income and Product Accounts (NIPA) from 1980 to 2009. Data in 2010 are GAO estimates aligned with published data where available. GAO simulations are from 2011 to 2060, using many CBO projections and assumptions, particularly for the next 10 years. Simulations are based on current policy. In the "base case" model 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. That is, a basic assumption of our model is that the current set of policies in place across state and local government remains constant.

State and Local Sector Continues to Face Long-Term Fiscal Challenges as Estimated Growth in Health Care Costs Exceeds Nonhealth Costs The primary driver of long-term fiscal challenges for the state and local government sector continues to be the projected growth in health-related costs. Specifically, state and local expenditures on Medicaid and the cost of health insurance for state and local retirees and employees are projected to grow more than GDP. The model's simulations also show that the sector's health-related costs will be about 3.7 percent of GDP in 2010 and 8.3 percent of GDP in 2060. In contrast, we found that other types of state and local government expenditures—including wages and salaries of state and local workers and investments in capital goods—are expected to grow slightly less than GDP. The model projects that the sector's nonhealth-related costs will be about 10.9 percent of GDP in 2011 and 7.1 percent of GDP in 2060. We also found that revenues, excluding Medicaid grants from the federal government, are projected to decline as a percentage of GDP without policy changes. As such, the projected rise in health-related costs is the root of the fiscal difficulties suggested by these

simulations. Our simulations for health-related and other expenditures are shown in figure 3.

Percentage of GDP
12
10
8
6
4
2

Figure 3: Health and Nonhealth Expenditures of State and Local Governments, as a Percentage of Gross Domestic Product

Nonhealth care expenditures
Health care expenditures
Source: GAO simulations, updated April 2011.

2030

2035

2005

Year

2010

2015

2020

2025

Notes: Historical data are from the Bureau of Economic Analysis's National Income and Product Accounts (NIPA) from 1980 to 2009. Data in 2010 are GAO estimates aligned with published data where available. GAO simulations are from 2010 to 2060, using many CBO projections and assumptions, particularly for the next 10 years. Simulations are based on current policy.

2040

2045

2050

2055

2060

Recent declines in pension asset values stemming from the current recession could also affect the sector's long-term fiscal position. While pension asset values increased by 15.5 percent, from \$2.3 trillion at the end of 2008 to \$2.7 trillion at the end of 2009, these values still have not recovered to match or exceed the 2007 value of \$3.2 trillion. Our April 2011 estimate of the sector's required contribution rate rose to 11.8 percent of the sector's wages, which is higher than the sector's actual 9.8 percent of wages contributed in 2009. While governments can postpone increasing the annual contribution rate, our projections assume that the contribution increases to the required level in 2011. In addition to declines in pension asset values and the challenge of fully funding pension benefits, state and local governments also face challenges funding their liabilities for other public employee benefits (which are primarily retiree health benefits).

State and Local Sector Share of Health Care Costs Expected to Increase in the Long Term as a Percentage of Gross Domestic Product The health-related cost-growth assumptions in our model include adjustments in response to the March 2010 passage of the Patient Protection and Affordable Care Act (PPACA).⁵ Precisely how the enacted legislation will affect state costs in the long term will continue to evolve and will likely vary among the states. The Social Security and Medicare Trustees, the Congressional Budget Office (CBO), and the Centers for Medicare & Medicaid Services' Office of the Actuary (CMS Actuary) have expressed concerns about the sustainability of certain cost-control measures over the long term in PPACA. In particular, the CMS Actuary estimates that while the federal government will be responsible for the vast majority of increased Medicaid expenditures over the next 10 years, state and local governments will also experience increased expenditures as they implement the law. 6 State costs will likely increase most where Medicaid eligibility requirements provided less coverage than that required by PPACA. Table 1 provides a brief description of selected PPACA provisions that affect the state and local government sector.

Table 1: Selected Patient Protection and Affordable Care Act (PPACA) Provisions Affecting the State and Local Government Sector

Type of provision	Provision	
Financing	PPACA contains provisions that affect Medicaid financing, including increases in prescription drug rebates and reductions in disproportionate-share hospital payments.	
Eligibility	PPACA includes a maintenance-of-eligibility requirement that precludes states from receiving federal Medicaid matching funding if they apply eligibility standards, methods, or procedures, under a state plan or a waiver, that are more restrictive than those in effect on the date of PPACA's enactment until the date the Secretary of Health and Human Services determines that a health insurance exchange established by the state is fully operational.	
	PPACA includes a provision that expands Medicaid eligibility to certain individuals under age 65 with incomes at or below 133 percent of the federal poverty level beginning in 2014.	
Cost shares	The federal government will pay 100 percent of the cost of the amounts expended for medical assistance for newly eligible individuals from 2014 through 2016 with the match gradually reduced to 90 percent by 2020.	

 $^{^5}$ Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (Mar. 23, 2010), as amended by Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, 124 Stat. 1029 (Mar. 30, 2010).

⁶The amount of federal funds states receive for their Medicaid programs is determined by the Federal Medical Assistance Percentage (FMAP) formula. The FMAP is the percentage of expenditures for most Medicaid services that the federal government pays; the remainder is referred to as the state share.

Notes: For additional information on the above provisions see, 42 U.S.C. $\S 1396a(a)(10)(A)(i)(VIII)$, 1396a(gg), 1396d(y), 1396r-4(f), 1396r-8.

Assumptions Used in Our 2011 State and Local Model Simulations

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. In contrast, the state share is approximately 40 to 37 percent in 2014 and later years. Expressed as a share of GDP, our model projects 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 the National Income and Product Accounts (NIPA) prepared by the Bureau of Economic Analysis as a primary data source. Our state and local model projects 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 projections for each major receipt and expenditure category of the state and local government sector in future years. We project the growth in each category of receipts and expenditures using CBO's economic

⁷In 2008, the most recent year data are available prior to the infusion of funds from the American Recovery and Reinvestment Act of 2009, the federal government share was approximately 58.1 percent and the state share was approximately 41.9 percent.

⁸For additional information on the effects of Medicaid on state expenditures see, GAO, Medicaid: Improving Responsiveness of Federal Assistance to States during Economic Downturns, GAO-11-395 (Washington, D.C.: Mar. 31, 2011); GAO, Recovery Act: Increased Medicaid Funds Aided Enrollment Growth, and Most States Reported Taking Steps to Sustain Their Program, GAO-11-58 (Washington, D.C.: Oct. 8, 2010); GAO, Medicaid Strategies to Help States Address Increased Expenditures during Economic Downturns, GAO-07-97 (Washington D.C.: Oct. 18, 2006); and GAO, Medicaid Formula: Differences in Funding Ability among States Often Are Widened, GAO-03-620 (Washington, D.C.: July 10, 2003).

⁹The model incorporates data available after the Bureau of Economic Analysis's comprehensive revision of the NIPA in July 2009 and the Bureau of Economic Analysis's annual revision of the NIPA in August 2010.

¹⁰Key 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.

assumptions whenever possible.¹¹ 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. Our model assumes current policies remain in place.

We made several changes to the assumptions in our simulations for this update. First, we allowed fiscal pressures to affect both state and local government employment and wages and salaries for several years. In a departure from our usual assumption that employment grows at the same rate as population, we assumed that from 2011 through 2014 the sector's employment-population ratio declines by the same amount that occurred during the severe downturn of the early 1980s. We made this change to reflect our expectation that the state and local sector will respond to the current cyclical downturn in a manner consistent with the response to the severe recession of the early 1980s. 12 From 2015 we set the sector's employment-population ratio at the level represented by the 2000-2009 average. This approach keeps the employment-population ratio below the 2007 business cycle peak for 7 years, as was the case in the early 1980s. As an additional manifestation of state and local governments' response to near-term budget pressures, we assumed that the sector's wages would grow 0.7 percent less than CBO's assumption for private-sector wage growth in 2011. The gap between private-sector and state- and local-sector wage growth tapers down to 0.1 percent by 2018. In the long term, both private and state and local government wages grow 3.2 percent per year.

Second, because the long-run relationships in the model do not capture cyclical adjustments, we adjusted state personal income tax receipts upward by 0.2 percent of GDP in 2011 in order to return it to its long-run historical share of GDP. After that, personal income tax receipts grow according to their long-run relationship with personal income. Similarly, in 2011 we set property tax receipts equal to the 2.8 percent average share of GDP that prevailed during the nonrecessionary years from 2002 through 2008. Thereafter we let receipts grow from this level according to the long-run relationship between the property tax base and GDP.

As in our last update, we use the average value of state and local retirement fund assets over the previous 5 years to calculate the

¹¹See Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2011 to 2021* (Washington, D.C.: January 2011) and *The Budget and Economic Outlook: An Update* (Washington, D.C.: August 2010). In Congressional Budget Office, *CBO's Economic Forecasting Record: 2010 Update* (Washington, D.C.: July 2010), CBO warns that the uncertainty inherent in its current forecasts exceeds the historical average because the current degree of economic dislocation exceeds that of any previous period in the past half-century.

 $^{^{12}{\}rm GAO}, State$ and Local Governments: Knowledge of Past Recessions Can Inform Future Federal Fiscal Assistance, GAO-11-401 (Washington, D.C.: Mar. 31, 2011).

contribution rate needed to fully fund pensions. Consistent with CBO, we include federal spending for Medicaid, the Children's Health Insurance Program (CHIP), and exchange subsidies for the newly created health insurance exchanges. ¹³

Since our last simulation in March 2010, we made several adjustments to the model in light of recent economic events. These modifications are summarized in table $2.^{14}$

Table 2: Modifications to Assumptions Used in our April 2011 Model Simulations

Variable	Previous assumptions	Updated assumptions
State and local consumption excluding employee compensation and capital consumption or "other consumption" (GSLCO)	Our standard assumption is that other consumption expenditures grow with population plus inflation.	The level of other consumption expenditures remained below the historical trend in 2010. Therefore, in 2011 we increased this spending category to its 2000-2009 average as a share of GDP. Thereafter, we let other consumption expenditures grow with population plus inflation per our standard assumption.

¹³Under PPACA, exchanges will be established by 2014 through which certain people will be eligible for federal subsidies to purchase private health insurance.

¹⁴See GAO-10-358 for discussion of our previous assumptions.

Total state and local government retirement fund assets (L1TOTALFA)

Because asset values can exhibit substantial volatility, governments typically use smoothed asset values in their pension funding calculations. Accordingly, in our previous update, we used the average value of pension fund assets over the previous 5 years to calculate the contribution rate needed to fully fund pensions rather than 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. Even though this smoothing somewhat dampens the effect of the recent drop in asset values, that drop still raises our estimate of the required contribution rate significantly from previous estimates.

As in the last 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.

Employment cost indexes for private wages and salaries (JECIWSP) and state and local government wages and salaries (JECISTLC)

Our standard assumption is that both private wages and salaries and state and local government wages and salaries grow at the rate CBO assumes for the employment cost index in the final years of its 10-year economic projections, but in March 2010 we used a wage growth assumption of 3.1 percent, which is 0.1 percent higher than CBO's 3.0 percent assumption, to offset the 0.1 percent increase in CBO's GDP price inflation.

We assume private-sector wages grow at the rate that CBO assumes in its January 2011 Budget and Economic Outlook. However, from 2011 through 2018 we reduce state and local ECI growth by the difference between state and local and private-sector compensation growth in IHS Global Insight's February 2011 U.S. economic forecast. This implies that the sector's wages grow 0.7 percent less than private-sector wages in 2011, with the margin tapering down to 0.1 percent by 2018. From 2021 on, both private and state and local government wages grow at 3.2 percent per year.

Total state and local government employment (EGSLALL)

Our standard assumption is that state and local government employment grows at the same rate as total population. In our previous update, we used data from the Bureau of Labor Statistic's Current **Employment Statistics** program to estimate the sector's 2009 employment level. Also, we chose not to use our standard assumption because the economy was in recession during 2009. Instead, we estimated a nonrecessionary employment level for 2010 by multiplying the average share of total population during the 2001-2009 period by 2010's projection population. After 2010, we assume the employment level grows with total population.

Because 2010 data on total employment were not available from National Income and Product Accounts at the time of our analysis, we used data from the Bureau of Labor Statistic's Current Employment Statistics program to estimate the sector's 2010 employment level. From 2011 through 2014 we reduced the sector's employment-population ratio by the same amount that occurred during the early 1980s. From 2015 forward we maintained the sector's employment-population ratio at its 2000-2009 average. While the sector's projected employment level begins to rise slightly in 2012, the employmentpopulation ratio remains below the 2007 peak for 7 years, as was the case in the early 1980s.

Rate on AArated municipal bonds (RMMUNIBB20)

To align our methods with other major sources, we now use the Bond Buyer GO 20-**Bond Municipal Bond Index** as our data source and adjusted our relationships for RATEOWED accordingly. 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 below the 10-year Treasury note rate.

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.

Federal investment grants (IGRANTCBO) and federal non-Medicaid grants—or other federal grants (GFAIDSLO) At the time of our March 2010 update, CBO's National Income and Product Accounts-consistent projections for federal grants were not available. To estimate federal investment and other federal grants, we multiplied the January 2010 GDP projection with an estimate of each variable's respective share of GDP derived from CBO's most recently available projections.

To estimate federal investment grants, we multiplied the January 2011 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.

State personal income tax receipts (TXPGSTATE)

We simulate 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. In our previous update, we assumed a delay in this adjustment that kept receipts one-tenth of 1 percent of GDP below the long-run level in 2010. In 2011, we let state personal tax receipts return to their long-run level.

Because this long-run relationship does not capture cyclical adjustments well, we adjusted receipts upward by two-tenths of 1 percent of GDP in 2011 in order to return it to its long-run historical share of GDP. Thereafter the long-term relationship determines the growth in personal income tax receipts.

Property tax receipts (TXIMGSLPROP)

Property tax receipts are assumed to grow with our projections of the property tax base. In turn, property tax base projections are based on our estimate of the relationship between real GDP and the real market value of real estate owned by both the household sector and the nonfarm, nonfinancial business sector. In our previous update, we set property taxes in 2010 equal to their 2.8 percent average share of GDP during the nonrecessionary years from 2002 through 2008. Thereafter, we let receipts grow from this level according to the long-run relationship.

Because our standard assumption does not adequately capture shorter-term developments, we set property taxes in 2011 equal to their 2.8 percent average share of GDP during the nonrecessionary years from 2002 through 2008. Thereafter, we let receipts grow from this level according to the long-run relationship.

Source: GAO.

Note: See apps. I-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), for a description of all assumptions made in the state and local model. App. V in GAO-08-317 provides a list of all model variables and definitions.

We conducted our work for this model update from September 2010 to April 2011 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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Related GAO Products

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

State and Local Governments: Knowledge of Past Recessions Can Inform Future Federal Fiscal Assistance. GAO-11-401. Washington, D.C.: March 31, 2011.

State and Local Government Pension Plans: Governance Practices and Long-term Investment Strategies Have Evolved Gradually as Plans Take on Increased Investment Risk. GAO-10-754. Washington, D.C.: August 24, 2010.

State and Local Governments: Fiscal Pressures Could Have Implications for Future Delivery of Intergovernmental Programs. GAO-10-899. Washington, D.C.: July 30, 2010.

State and Local Governments' Fiscal Outlook: March 2010 Update. GAO-10-358. Washington, D.C.: March 2, 2010.

Update of State and Local Government Fiscal Pressures. GAO-09-320R. Washington, D.C.: January 26, 2009.

State and Local Fiscal Challenges: Rising Health Care Costs Drive Longterm and Immediate Pressures. GAO-09-210T. Washington, D.C.: November 19, 2008.

State and Local Government Pension Plans: Current Structure and Funded Status. GAO-08-983T. Washington, D.C.: July 10, 2008.

State and Local Government Retiree Benefits: Current Funded Status of Pension and Health Benefits. GAO-08-223. Washington, D.C.: January 29, 2008.

State and Local Governments: Growing Fiscal Challenges Will Emerge during the Next 10 Years. GAO-08-317. Washington, D.C.: January 22, 2008.

State and Local Governments: Persistent Fiscal Challenges Will Likely Emerge within the Next Decade. GAO-07-1080SP. Washington, D.C.: July 18, 2007.