

State and Local Government Debt, 1992-2008

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By 2008 state and local governments in the United States had accumulated a total outstanding financial market debt of nearly \$2.6 trillion or about \$8,500 per person. That debt amounted to nearly 18 percent of GDP and 96 percent of the annual revenue for all state and local governments. State governments (or state government authorities) account for about 39 percent of that total subnational government debt, with the remainder of the financial responsibility of the wide variety of local governments. Although this magnitude of aggregate state and local debt may seem large, the annual cost of this debt to state and local government budgets is modest. In 2008 the annual interest payments on the outstanding debt amounted to 3.8 percent of total state and local revenue.

This simple summary of the subnational government debt situation suggests a number of policy questions. Has the magnitude of state and local government debt been growing, and if so, what factors have influenced that growth? What are the purposes for which state and local governments have borrowed in the past, thus creating the current debt? How does the degree of debt differ among the states, and what economic and political characteristics affect the state differences? Is the fiscal cost of state-local financial debt sustainable, or does it suggest long-run concerns about fiscal stability and viability?

Despite the seeming importance of state and local government debt, the topic has received relatively little attention in the academic literature. Roy Bahl and William Duncombe (1993) examined aggregate state-local debt during the 1980s and provided one of the first studies to use regression analysis to determine the factors that influence differences in debt across states. Several later papers also exam-

ined state-local debt through the 1980s or early 1990s, but often focused on narrower issues about the effect of politics or debt limits.¹ To update the information reported by Bahl and Duncombe, we report in this article the results of an examination of state and local government debt for 1992 to 2008, focusing on the years for which detailed Census of Governments data are available (1992, 1997, 2002, 2007).²

There have been a number of news reports in recent months about the continuing fiscal problems of state and local governments, including some discussion of whether these problems might result in “bankruptcies” or financial defaults. Therefore, it seems useful to clarify the various types of “debt” state and local governments might face and to identify clearly the type of debt considered in this article. Most obviously, state and local governments incur financial market debt through the issuance of bonds for the following purposes:

- to finance public capital projects or public facilities (such as roads and bridges, schools, and other public buildings; water and sanitation facilities, parks, and recreation facilities, and so on);
- to provide cash flow for short-term spending or for special projects of a short duration; and
- to support and subsidize private activities such as private home mortgages, student loans, and industrial or commercial development.

That is the traditional form of debt discussed in this article.

However, some would include other future financial liabilities of state-local governments as debt, most notably the future pension costs and post-retirement healthcare costs of past and current

¹For instance, see Trautman (1995), Clingermayer and Wood (1995), and Ellis and Schansberg (1999).

²This work was supported partially by the California Debt and Investment Advisory Commission. All results and statements in this article reflect the views of the authors and not necessarily the commission.

Table 1.
State and Local Government Debt Outstanding

| Year | Aggregate Real Debt (billions of 2009 dollars) | Per Capita Debt (2009 dollars) | Debt as a Percentage of GDP | Debt as a Percentage of Annual Revenue | State Share of Debt | Local Share of Debt |
|------|--|--------------------------------|-----------------------------|--|---------------------|---------------------|
| 2008 | \$2,580 | \$8,540 | 17.8% | 95.9% | 39.4% | 60.6% |
| 2007 | \$2,490 | \$8,320 | 17.1% | 78.6% | 38.8% | 61.2% |
| 2002 | \$2,010 | \$6,970 | 16.1% | 93.1% | 38.1% | 61.9% |
| 1997 | \$1,590 | \$5,910 | 14.7% | 75.8% | 37.4% | 62.6% |
| 1992 | \$1,400 | \$5,620 | 15.4% | 82.3% | 38.2% | 61.8% |
| 1987 | \$1,030 | \$5,000 | 15.9% | 86.1% | 37.0% | 63.0% |
| 1982 | \$791 | \$3,400 | 13.0% | 73.9% | 36.9% | 63.1% |
| 1977 | \$749 | \$3,460 | 12.9% | 76.9% | 35.0% | 65.0% |
| 1972 | \$719 | \$3,450 | 14.4% | 92.1% | 31.2% | 68.8% |
| 1967 | \$596 | \$3,010 | 14.0% | 106.6% | 28.3% | 71.7% |
| 1962 | \$465 | \$2,390 | 13.8% | 116.3% | 27.3% | 72.7% |

Source: U.S. Bureau of the Census, *Governmental Finances*, various years; U.S. Department of Commerce, Bureau of Economic Analysis, National Income Accounts data, various years.

employees. Depending on contractual and other legal aspects, that deferred compensation to employees may likely represent a claim on future public receipts and assets. The focus has been on the magnitude of those liabilities not covered by invested pension funds. Finally, state and local governments often engage in internal borrowing, transferring money from some internal dedicated funds with surpluses to a general fund or other uses. The expectation is that the state or local government will reimburse the dedicated fund at some point in the future, creating another form of “debt.” Although all those future liabilities represent a claim on future revenue and all may contribute to fiscal difficulties in the future, our work considers only traditional financial market debt.

Aggregate State and Local Government Debt

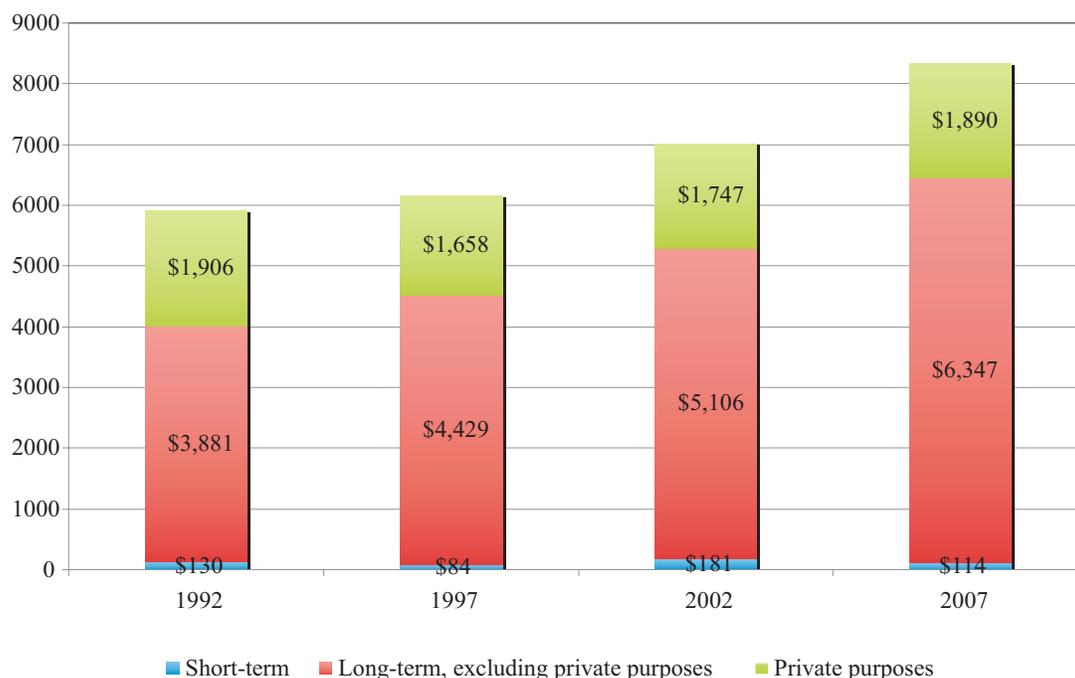
A long-run perspective of state and local government debt over the past 45 years is shown in Table 1. The magnitude of debt — like the magnitude of state and local government spending — grew substantially in these years, both in real dollars and real dollars per person. Until recently, however, the magnitude of state and local government debt remained relatively stable compared with the size of the economy (13 percent to 16 percent of GDP). Comparing debt with the annual total revenue of subnational (state and local) governments, the ratio was high in the 1960s, but generally has remained in the range of about 75 percent to 90 percent since. As indicated by the state government share of state and local debt rising from 27.3 percent in 1962 to 39.4 percent in 2008, there has been essentially continuous centralization of subnational government borrowing. However, since 1992 the division of

debt between state and local governments has remained relatively stable. State governments now account for about 39 percent of the total subnational government debt.

Of course, most of the current outstanding subnational government debt was incurred in the past (some as much as 20 years ago or more) to fund facilities that continue to provide services now and in the future. Therefore, comparing aggregate debt with annual magnitudes, such as GDP or government revenue, may provide a misleading indication if the year selected is not typical in an economic or fiscal sense (for example, a recession year or a year with unusually high income or revenue). For instance, the apparent increase in the magnitude of debt for 2008 relative to GDP and revenue reflects the beginning effects of the Great Recession and the resulting substantial decline in GDP and the beginning decline in state revenue. Therefore, it is more informative to examine trends in debt over a relatively long period.

Accordingly, what follows is a detailed examination of state and local government debt for 1992 to 2007, focusing on 1992, 1997, 2002, and 2007. Changes in debt during this period are illustrated in figures 1 through 4. Several observations stand out. First, as reflected in all four figures, long-term debt (length of more than one year) accounts for the overwhelming bulk of outstanding debt, more than 98 percent of the total. Second, as shown in figures 1 and 2 (p. 430), state-local government debt increased in magnitude since 1992 in real, per capita terms and compared with GDP. Third, the bulk of the increase in state-local debt since 1992 was long-term debt for traditional public purposes, rather than state and local government debt incurred on behalf

Figure 1.
Real Per Capita Debt, U.S. State and Local Governments, by Type (2009 dollars)



of private purposes. Long-term debt for private purposes has been constant at 4 percent of GDP since 1997.

Fourth, although debt rose faster than GDP during that period, it did not increase faster than state-local government revenue, as shown in Figure 3 (p. 431). In 2007, before the effects of the recent recession, aggregate state-local government debt amounted to about 79 percent of state-local revenue, roughly the same level as in 1992 and 1997. Among those four years, fiscal 1992 and 2002 came just at the end of national recessions, whereas fiscal 1997 and 2007 came after periods of economic growth.³ Thus, it may make most sense to compare 2007 with 1997. Comparing those two years suggests that total outstanding state and local government debt is about the same size compared with total state and local government revenue. Thus, in aggregate, it does not appear that as of 2007 state and local governments in the United States incurred outstanding debt disproportionate to their annual budgets.

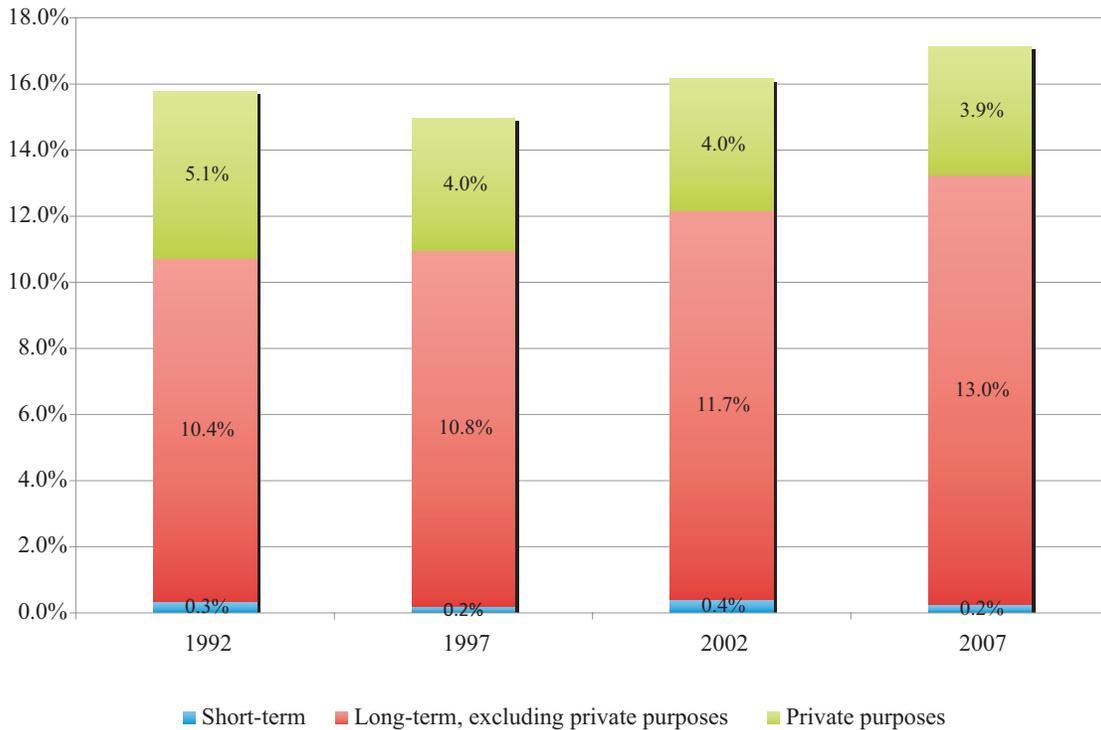
³The official dates for U.S. recessions in this period are July 1990-March 1991, March 2001-November 2001, and then the latest recession that began in December 2007 and ended in June 2009.

Fifth, among the various types of state and local governments, the largest increase in debt during this period was debt held by school districts, as shown in Figure 4 (p. 432). Nationally, school district long-term debt increased from 6 percent of total state and local long-term debt in 1992 to 13 percent in 2007. Because the overall local government share of long-term debt has not changed, effectively school district debt has replaced debt by counties, municipalities, and special districts. The share of long-term debt for all three of the latter types of localities has declined. Thus, the national story is that state and local governments have borrowed more, especially for investments in K-12 education.

It does not appear that as of 2007 state and local governments in the United States incurred outstanding debt disproportionate to their annual budgets.

Finally, despite the increase in the relative magnitude of state and local government debt since 1992, annual interest paid on that debt by state and local governments in aggregate decreased substantially compared with annual revenue, from 5.5 percent of revenue in 1992 to 4.5 percent in 1997, 4.8

Figure 2.
U.S. State-local Debt as a Percentage of GDP, by Type



percent in 2002, and 3.5 percent in 2007. That reduction in annual interest cost resulted from the combination of changes in debt compared with revenue and changes in the interest rates that state and local governments face. Disaggregating by type of subnational government, annual interest paid on outstanding debt decreased as a share of revenue from 1992 to 2007 for all types of state and local governments, except for school districts, as shown in Figure 5 (p. 433). That result reinforces the point that much of the growth in this recent 15-year period has been in debt by or on behalf of schools. Even accounting for that growth, school districts spent less than 3 percent of their overall revenue on interest payments in 2007.

Understanding Interstate Differences in Debt

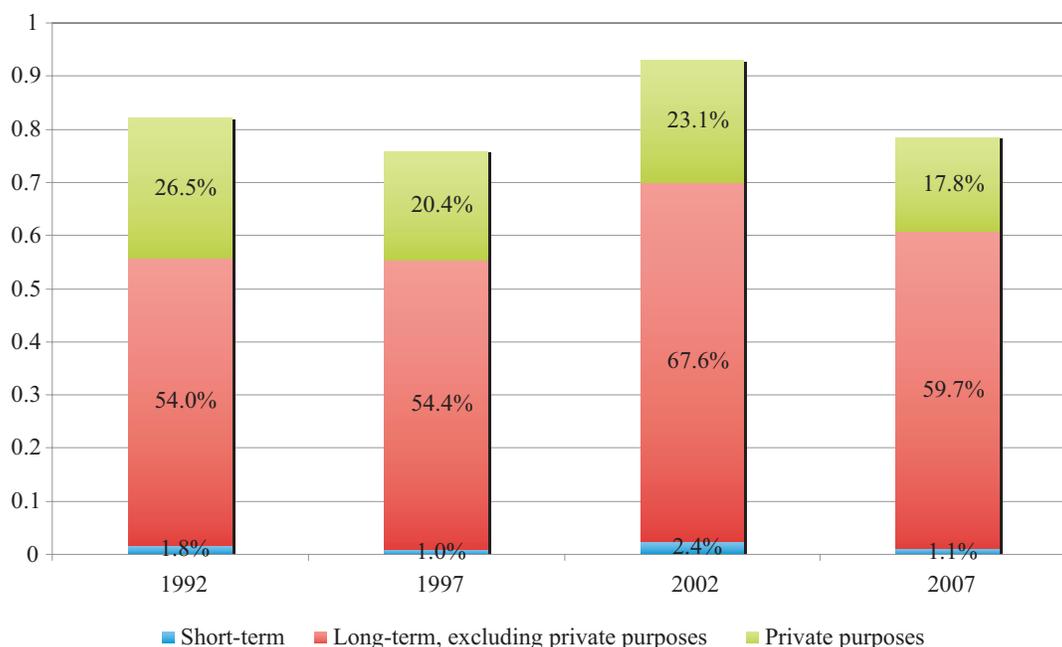
States differ substantially in the level and composition of outstanding debt, so the perspective about aggregate state and local government debt presented previously may not represent the situation for individual state or local governments. As an illustration, long-term debt outstanding in 2007 for all state and local governments together but separately for each state is shown in Table 2. The information in the table reveals the substantial differences among the states, with per capita long-

term debt varying from more than \$14,000 in Massachusetts⁴ to less than \$4,500 in Mississippi, and debt as a percentage of gross state product varying from 25 percent in Massachusetts to less than 7 percent in Wyoming. Similar differences arise in comparing outstanding debt with annual revenue, with outstanding state-local long-term debt in 2007 being more than 100 percent of state-local annual revenue in two states (Massachusetts and Kentucky) and less than 50 percent of revenue in three states (Wyoming, Mississippi, and Idaho).

The information in Table 2 (p. 434) also illustrates the degree to which states differ in the use of traditional nontaxable state-local government bonds to finance “private purposes.” That private-purpose debt is limited by federal tax law that imposes annual state-specific caps on the magnitude of those bonds that may be issued. Comparison of per capita debt (column 2) and per capita debt excluding that for private purposes (column 3) shows the per capita debt incurred by state and local governments for private purposes. States where the difference is

⁴This excludes both Alaska and the District of Columbia, where per capita debt is more than \$15,000 per capita.

Figure 3.
U.S. State-Local Debt as a Percentage of
State-Local Government Annual Revenue, by Type of Debt



relatively substantial (at least 45 percent of outstanding debt is for private purposes) include New Hampshire, West Virginia, South Dakota, Wyoming, and Montana.⁵

In an attempt to understand these interstate differences in debt, we undertook a statistical regression analysis of the level of state and local government debt of the 50 states for 1992, 1997, 2002, and 2007. One objective is to identify the factors that have influenced differences in debt among the states over this period and to compare those results for the recent period to those reported by Bahl and Duncombe in 1993.

We model the causes of differences in debt among states and over time as follows.

The outstanding debt of a state or local government in period t equals the outstanding debt in the prior period plus any new bonds issued in the current period minus bonds retired in that period.

$$D(t) = D(t-1) + [B(t) - R(t)]$$

Where $D(t)$ = Outstanding Debt in period t

$B(t)$ = New Bonds Issued in period t

$R(t)$ = Bond Retirement in period t

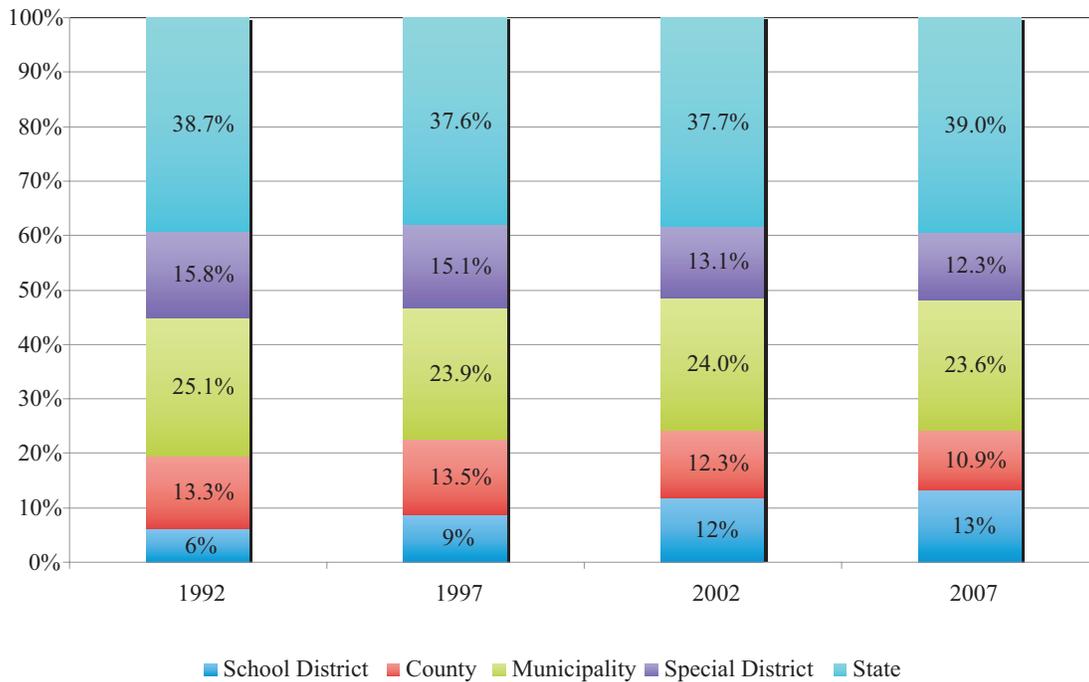
Therefore, outstanding debt at a particular time t is regressed on previous debt, $D(t-1)$, plus factors that cause differences in $[B(t) + R(t)]$ among the states. In our analysis, debt outstanding at any time is measured as real per capita debt. The variables used in the regression to explain annual bond issuance and retirement are:

- Real Gross State Product Per Capita, by State
- Statewide Unemployment Rate, by State
- State Government Balance as Percentage of State Government Expenditure, by State
- Real Per Capita Federal Grants to State and Local Governments, by State
- Percentage of State Population Greater Than or Equal to Age 65, by State
- Percentage of State Population in K-12 Public Schools, by State
- Index that Measures Political Ideology of State, varies from 0 (Conservative) to 100 (Liberal)⁶
- 0/1 Variable to Indicate if the State Has a Debt Limit
- 0/1 Variable to Indicate if the State Has No Fiscal (revenue or spending) Limit

⁵For more about this topic, see Temple, 1993.

⁶See Berry *et.al.*, 2010.

Figure 4.
Share of Long-Term U.S. State-Local Government Debt
by Type of Government



Set of 0/1 variables to Indicate the Year or Time Trend

Set of 0/1 Variables to Indicate the State.

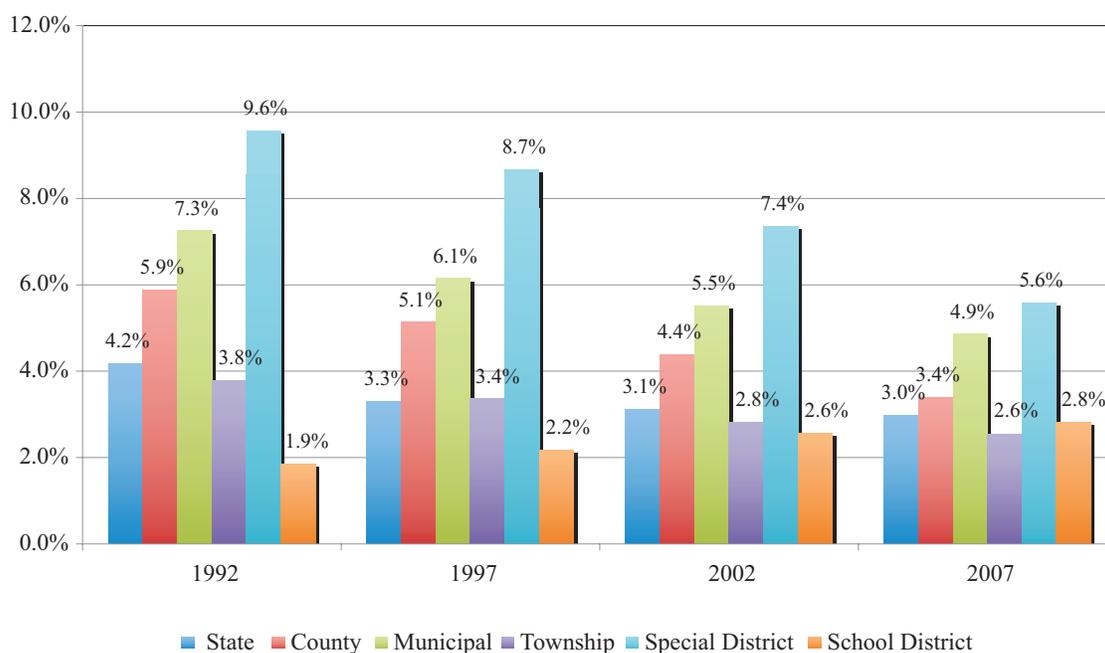
The critical results from this analysis are as follows:

- The statistical analysis confirms that this was a period when state and local government grew substantially, even allowing for the effects of the economic and social variables affecting debt. State and local governments increased debt more than might be expected based on the independent variables.
- For most types of state-local government borrowing, debt tended to be persistent. That is, the amount of outstanding debt in one year is positively related to debt in past years. That is unsurprising because only a relatively small fraction of debt is incurred or retired in one year. So state-local governments with high debt in the past continue to have high debt in a current period.
- The one socioeconomic factor that exerted a persistent positive effect on state and local government debt is the percentage of a state's population that attends K-12 public schools (after controlling for other economic, social, and political factors). A 1 percentage point difference in the share of a state's population in

public schools is associated with higher per capita debt of \$117 to \$141. That suggests that outstanding state-local government debt during this period was especially affected by public school enrollment, perhaps representing borrowing to build or maintain schools or constraints on other school district revenue (especially property taxes). That is consistent with the aggregate perspective discussed previously showing that debt held by school districts had become a much larger share of total state-local government debt.

- There is some evidence, although not as strong as for the other findings noted above, that state and local government debt serves as a substitute for federal aid. Some of the results suggest that outstanding debt is lower in states that receive higher federal grants per capita (again after controlling for other economic, social, and political factors).
- State-specific factors not captured by the independent variables used in the regression analysis are important in explaining state differences in debt. Technically, that is reflected by the fact that many state dummy variables are statistically significant in some versions of the regression models. In policy terms, this implies that in many cases, state and local government

Figure 5.
Interest on State-Local Government Debt as a Percentage of
State-Local Annual Revenue, by Type of Government and Year



debt in a state is not fully explained by the observable economic and political factors — such as income, government resources, socio-economic characteristics of the population, fiscal limits, or political ideology — used in our analysis. To put it directly, there are often important but not obvious state-specific characteristics influencing choices about public-sector infrastructure investment or the option for debt financing of investment. For instance, in analyzing aggregate long-term per capita debt, states with statistically significantly more debt than predicted by the model include Alaska, Massachusetts, Nevada, and New York. Those with statistically significantly less debt than predicted include Alabama, Arkansas, Georgia, Idaho, Indiana, Iowa, Kansas, Maryland, Michigan, Mississippi, Missouri, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Tennessee, Texas, Virginia, and Wyoming.⁷

Roy Bahl and William Duncombe (1993) analyzed interstate differences for an alternative measure of state-local debt, debt as a percentage of a state's total personal income, for an earlier period (1988-

1990).⁸ Consistent with our results for the more recent years, both past debt and student enrollment were positively related to outstanding state-local debt. They also reported that population and population density exerted a positive influence on the measures of debt used in their analysis, whereas debt and revenue limits exerted a negative influence. Because our measure of outstanding debt is in per capita terms, population variables are not as relevant. However, for the most recent period, we saw no evidence that debt or fiscal limits were constraining state-local debt.

Summary of Findings

This research suggests a relatively clear picture of state and local debt before the recent recession (from 1992 to 2007). Let us return to the questions posed at the beginning of this article to identify what has been learned.

Has the magnitude of state and local government debt been growing, and if so, what factors have influenced that growth? What are the purposes for which state and local governments have borrowed in the past, thus creating the current debt? From 1992 to 2007, state and local government debt clearly

⁷Significantly more or less debt than predicted is relative to the unnamed states.

⁸Alaska was excluded.

Table 2.
State and Local Government Outstanding Long-term Debt, 2007, by State

| | Per Capita 2009 Dollars | Per Capita 2009 Dollars Excl. Private Purposes Debt | Percentage of GSP | Percentage of GSP Exc. Private Purposes Debt | Percentage of Annual Revenue | Percentage of Annual Revenue Excl. Private Purposes Debt |
|----------------------|--|--|------------------------------|---|---|---|
| Alabama | \$5,511 | \$4,869 | 14.9% | 13.1% | 60.2% | 53.2% |
| Alaska | \$15,087 | \$8,401 | 22.0% | 12.3% | 63.8% | 35.5% |
| Arizona | \$6,550 | \$4,890 | 15.9% | 11.9% | 76.3% | 56.9% |
| Arkansas | \$4,484 | \$2,856 | 12.8% | 8.2% | 54.1% | 34.5% |
| California | \$9,468 | \$8,377 | 18.3% | 16.2% | 70.4% | 62.3% |
| Colorado | \$9,960 | \$7,225 | 19.4% | 14.1% | 97.8% | 70.9% |
| Connecticut | \$9,574 | \$6,800 | 15.2% | 10.8% | 86.9% | 61.7% |
| Delaware | \$8,941 | \$5,219 | 12.0% | 7.0% | 79.9% | 46.6% |
| District of Columbia | \$15,417 | \$13,373 | 9.4% | 8.2% | 76.4% | 66.3% |
| Florida | \$7,641 | \$6,419 | 18.0% | 15.1% | 77.3% | 64.9% |
| Georgia | \$5,262 | \$4,465 | 12.1% | 10.3% | 62.4% | 52.9% |
| Hawaii | \$8,034 | \$7,696 | 16.0% | 15.3% | 73.1% | 70.0% |
| Idaho | \$3,680 | \$2,162 | 10.0% | 5.9% | 42.2% | 24.8% |
| Illinois | \$9,464 | \$7,116 | 18.8% | 14.2% | 97.4% | 73.2% |
| Indiana | \$6,612 | \$5,024 | 16.2% | 12.3% | 82.1% | 62.4% |
| Iowa | \$5,105 | \$3,371 | 11.3% | 7.4% | 52.8% | 34.9% |
| Kansas | \$7,309 | \$5,250 | 16.6% | 12.0% | 82.3% | 59.1% |
| Kentucky | \$9,005 | \$5,231 | 24.1% | 14.0% | 108.6% | 63.1% |
| Louisiana | \$6,849 | \$5,059 | 13.5% | 10.0% | 59.9% | 44.3% |
| Maine | \$6,274 | \$3,681 | 16.6% | 9.7% | 64.5% | 37.8% |
| Maryland | \$6,178 | \$4,007 | 12.7% | 8.2% | 62.1% | 40.3% |
| Massachusetts | \$14,108 | \$9,301 | 25.0% | 16.5% | 125.4% | 82.7% |
| Michigan | \$7,399 | \$5,836 | 19.0% | 15.0% | 77.8% | 61.4% |
| Minnesota | \$7,674 | \$5,932 | 15.1% | 11.7% | 70.3% | 54.3% |
| Mississippi | \$4,434 | \$3,658 | 14.2% | 11.7% | 41.9% | 34.6% |
| Missouri | \$6,825 | \$3,980 | 16.9% | 9.8% | 77.7% | 45.3% |
| Montana | \$6,732 | \$2,261 | 18.0% | 6.0% | 67.0% | 22.5% |
| Nebraska | \$6,732 | \$5,480 | 14.3% | 11.6% | 62.0% | 50.4% |
| Nevada | \$8,995 | \$8,339 | 16.8% | 15.5% | 93.4% | 86.6% |
| New Hampshire | \$8,071 | \$4,322 | 17.7% | 9.5% | 98.7% | 52.9% |
| New Jersey | \$9,924 | \$8,068 | 17.9% | 14.6% | 86.8% | 70.6% |
| New Mexico | \$6,407 | \$4,384 | 16.0% | 10.9% | 57.3% | 39.2% |
| New York | \$13,579 | \$10,837 | 23.0% | 18.3% | 86.8% | 69.2% |
| North Carolina | \$5,812 | \$4,704 | 12.8% | 10.3% | 65.6% | 53.1% |
| North Dakota | \$5,890 | \$3,702 | 12.7% | 8.0% | 57.1% | 35.9% |
| Ohio | \$6,020 | \$3,897 | 14.5% | 9.4% | 54.9% | 35.5% |
| Oklahoma | \$4,793 | \$3,785 | 12.1% | 9.6% | 54.5% | 43.1% |
| Oregon | \$8,136 | \$7,028 | 18.3% | 15.8% | 69.3% | 59.8% |
| Pennsylvania | \$9,032 | \$5,604 | 20.4% | 12.7% | 89.7% | 55.7% |
| Rhode Island | \$10,222 | \$5,685 | 22.4% | 12.5% | 93.1% | 51.8% |
| South Carolina | \$8,496 | \$7,359 | 23.5% | 20.3% | 90.3% | 78.2% |
| South Dakota | \$6,353 | \$2,688 | 13.7% | 5.8% | 68.5% | 29.0% |
| Tennessee | \$5,648 | \$4,715 | 13.6% | 11.3% | 63.7% | 53.2% |
| Texas | \$8,172 | \$6,300 | 16.1% | 12.4% | 94.2% | 72.6% |
| Utah | \$6,207 | \$4,574 | 14.7% | 10.8% | 66.8% | 49.2% |
| Vermont | \$6,591 | \$3,739 | 16.0% | 9.1% | 62.1% | 35.2% |
| Virginia | \$6,841 | \$5,254 | 13.2% | 10.1% | 71.7% | 55.1% |
| Washington | \$10,016 | \$8,668 | 19.9% | 17.2% | 85.3% | 73.8% |
| West Virginia | \$5,197 | \$2,426 | 15.7% | 7.3% | 61.3% | 28.6% |
| Wisconsin | \$7,551 | \$5,483 | 17.4% | 12.6% | 72.8% | 52.9% |
| Wyoming | \$4,508 | \$1,562 | 7.1% | 2.5% | 26.2% | 9.1% |
| United States Total | \$8,237 | \$6,347 | 17.3% | 13.4% | 77.5% | 59.7% |

Source: Census of Governments, 2007, US Census Bureau

increased compared with both population and GDP. However, the amount of debt outstanding did not increase compared with the amount of state and local government revenue, and even more importantly, the annual interest payments on the outstanding debt *declined* compared with state-local budgets. Also, most of the increase in state-local debt during this period was long-term debt for public purposes, especially debt incurred by school districts for K-12 education.

The amount of debt outstanding did not increase compared with the amount of state and local government revenue and the annual interest payments on the outstanding debt declined compared with state-local budgets.

How does the degree of debt differ among the states, and what economic and political characteristics affect the state differences? In any given year, the differences among states in outstanding debt — whether measured relative to population, state income, or state-local revenue — are substantial. Roughly, debt levels in the highest-debt states are three times the magnitude in the lowest-debt states. Debt incurred by state and local governments reflects the underlying demand for public services and infrastructure, the state preference for debt as opposed to tax financing, and the desire to use public debt for private purposes.⁹ Unsurprisingly, therefore, debt is persistent in the sense that high-debt states tend to remain high-debt states in the future. Importantly, one factor that consistently has affected the level of debt in a state is the number of students, reflecting both the significance of education spending in state-local budgets and the magnitude of capital investment involved in education.

Is the fiscal cost of state-local financial debt sustainable, or does it suggest long-run concerns about fiscal stability and viability? Overall state-local debt in 2007 was about the same fraction of annual revenue as in 1997. Since about 2002, nominal borrowing costs for state and local governments have been at the lowest levels in 40 years. The 20-Bond Buyer Index (average rates for 20, 20-year bonds) fell below 5 percent around 2002, reflecting overall declines in interest rates and the conditions in the municipal bond market. Interest paid as a fraction of government revenue declined since 1992 for all types of state and local governments, except

for school districts. Even for school districts, which were the source of the greatest growth in state-local debt over this period, annual interest cost in 2007 was only 2.8 percent of revenue. The results suggest, therefore, that state and local governments acted appropriately up to 2007 in incurring debt for traditional public purposes at an interest cost that was declining. Although the analysis does not support the view that state and local government debt in aggregate is unsustainable or a fiscal threat, it is, of course, not feasible to examine the situation for every separate state or local government.

State and local government borrowing behavior after 2007 may have changed the debt picture, of course, for a number of reasons. First, the financial market crisis and the major national economic recession continue to exert dramatic fiscal effects on state and local government budgets. Also, the national government pursued an aggressive fiscal stimulus response to the recession that particularly targeted state and local governments. That fiscal stimulus included increased federal financial support for some state-local services (Medicaid, education, and infrastructure projects especially) and the creation of a federally subsidized, taxable bond option for state and local governments (Build America Bonds). Accordingly, we will examine state and local government borrowing behavior during the recession period (2008-2010) and hope to report those results in the future.

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⁹For a formal model of these factors affecting debt, see Temple, 1994.

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