Measuring Fiscal Disparities Across the U.S. States:
A Representative Revenue System/
Representative Expenditure System Approach,
Fiscal Year 2002

**by Yesim Yilmaz, Sonya Hoo, Matthew Nagowski,
Kim Rueben, and Robert Tannenwald**

Abstract

States and their local governments vary both in their needs to provide basic public services and in their abilities to raise revenues to pay for those services. A joint study by the Tax Policy Center and the New England Policy Center at the Federal Reserve Bank of Boston uses the Representative Revenue System (RRS) and the Representative Expenditure System (RES) frameworks to quantify these disparities across states by comparing each state's revenue capacity, revenue effort, and necessary expenditures to the average capacity, effort, and need in states across the country for fiscal year 2002.

The fiscal capacity of a state is the state's revenue capacity relative to its expenditure need. A state with low fiscal capacity has a relatively small revenue base, a relatively high need for expenditures, or—as is often the case—a combination of both.

The New England and Mid-Atlantic states tend to have high revenue capacity and low expenditure needs compared to the national average. Thus, states in these two regions tend to have high fiscal capacity, or a relatively high capability to cover their expenditure needs using own resources. South Central states, on the other hand, have low fiscal capacity—that is, a low level of revenue-raising capacity given what it would cost to provide a standard set of public services to their citizens.

Little relation exists between the amount of federal aid received by states and their fiscal capacity; federal money is not primarily distributed to offset differences in the ability to raise revenues or provide services. Given the current level of federal funds allocated to state and local governments, 91 percent of the gap between revenue capacity and expenditure need across the states could be covered if federal funds were reallocated.

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Executive summary

This report measures the fiscal disparities across the 50 states in fiscal year 2002 by looking at each state's revenue capacity, expenditure need, and overall level of fiscal capacity.[1] Because tax authority and expenditure responsibilities are assigned to different levels of governments across different states, we combine information about revenues raised and expenditure needs for each state and its local governments.[2] We use a methodology based on the underlying economic and demographic conditions found in the states rather than actual revenue and expenditure levels. A state's revenue capacity measures the resources its state and local governments can tap to finance public services. A state's expenditure need gauges the extent to which its state and local governments face conditions that raise or lower the cost of and need for public services. Fiscal capacity assesses each state's ability to raise revenues relative to its expenditure needs. This is the first such study undertaken by the Tax Policy Center in collaboration with the New England Public Policy Center at the Federal Reserve Bank of Boston.

Methodology and definitions

In assessing fiscal capacity and need, we use the representative revenue system (RRS) and the representative expenditure system (RES) frameworks. The RRS and RES methodologies were developed in 1962 and 1986, respectively, by the U.S. Advisory Commission on Intergovernmental Relations (ACIR). After the ACIR was disbanded in 1995, Robert Tannenwald continued the reports through fiscal year 1999 (FY 1999). We extend this earlier work using fiscal year 2002 (FY 2002) data.

Measuring fiscal disparities requires a state-by-state construction of estimated revenues and expenditures based on typical tax and expenditure policies across the nation. Our calculations take into account the underlying demographic, socioeconomic, and geographical structure of each state to calculate the state's revenue base and expenditure need. These revenue and expenditure estimates are independent of states' actual tax and expenditure policies, or the division of power between each state and its local governments.

In this report, we have updated the methodology used to estimate expenditure need after a re-examination of the demographic measures that track most closely with the programs that make up the bulk of state expenditures. In particular, we have updated the measures used to calculate expenditure need for education to reflect recent research on the added cost of educating children in poverty, as well as changes in adopted policies (such as No Child Left Behind) that add to that cost. We have also updated the measures used to calculate expenditure need for the welfare category, which largely is made up of state Medicaid expenditures. Our update adds a measure of the state's elderly population in poverty, an important driver of Medicaid costs.

On the revenue side,
- The *tax capacity* of a given state is the taxes the state would have collected if it were to tax every potentially taxable item at the *representative tax rate*—the national average of state tax rates weighted by the size of each state's tax base.
- The *revenue capacity* of each state includes *tax capacity* as well as potential nontax revenue from such sources as user charges, lotteries, income from sale of property, or interest income; again, we assume that a state levies charges and collects other revenues at representative levels. A state is said to have a high *revenue (tax) effort* if its actual revenues (tax collections) exceed its revenue (tax) capacity.

On the expenditure side,
- A state's *expenditure need* is the amount that a state would have to spend on its residents to provide services on par with the national average. Expenditure need is calculated across seven broad spending categories, and state amounts can differ based on differences in population or other factors. For example, all other things being equal, a state with a large percentage of its population between the ages of 5 and 18 has a higher need for spending on education than one with fewer school-age children. A state with a high *expenditure effort* spends more than its *expenditure need*.

The *fiscal capacity* of a state is the state's *revenue capacity relative to its expenditure need*. A state with low fiscal capacity has a relatively small revenue base, a relatively high need for expenditures, or—as is often the case—a combination of both. Low *fiscal capacity* does not necessarily imply a weak fiscal position. States with low fiscal capacity could maintain fiscal health (that is, setting revenues equal to expenditures) using a high revenue effort, low actual expenditures, or through transfers from the federal government. Low fiscal capacity states may have less ability to weather economic shocks, a condition illustrated in the aftermath of Hurricane Katrina. Louisiana, Mississippi and Alabama—the three states hit hardest by Katrina—are among the states with the lowest revenue capacity, highest expenditure need, and lowest fiscal capacity.

Differences across states in fiscal capacity reveal the degree of *fiscal disparity* within the nation. The *fiscal gap at capacity*, or the difference between revenue capacity and expenditure need, measures how much larger revenue effort would need to be to meet the

expenditure needs of the state. This gap can be offset through transfers from federal governments or, if caused by short run disparities, through borrowing.

Findings

Connecticut ranks first with the highest representative revenue capacity of $6,272 per person. In comparison, Mississippi, which ranks last, would raise only $3,352 with the same revenue system in place. Alaska displays the highest representative revenue effort of all states, collecting $8,537 compared with its capacity of $5,496;[3] and New York had the second highest, collecting $6,376 compared with its capacity of $5,240. Although Tennessee expends the lowest revenue effort in dollar amounts, collecting $3,451 compared with its capacity of $4,139, New Hampshire actually demonstrates the lowest amount of revenue effort relative to its capacity—collecting only 76 percent of its revenue capacity of $5,482 per person.

On spending, Mississippi has the highest expenditure need at $6,800 per person, while Hawaii has the lowest at $5,216. Alaska has by far the highest expenditure effort, spending $13,175 per person, compared with a need of $5,995;[4] New York has the second highest expenditure effort, spending $8,414 compared with a need of $6,052. Meanwhile, Mississippi spent $5,365 compared with its need of $6,800. The top five states in terms of expenditure need—Mississippi, Louisiana, Arkansas, Alabama, and New Mexico—had, on average, 18 percent of their populations living in poverty compared with a national average of 11.5 percent.

Consistent with findings from previous years, the Mid-Atlantic and New England states enjoy the greatest *revenue capacity* (on a per capita basis).[5] States in these regions also tend to have the lowest *expenditure need*, and thus rank among the top in terms of *fiscal capacity*. South Central states have the lowest *revenue capacity*, and relatively high *expenditure needs*. Therefore these states are, with few exceptions, at the bottom of the *fiscal capacity* rankings.

- In terms of *tax capacity*,[6] comparing FY 2002 rankings to FY 1999 and FY 1997 shows that Delaware, Connecticut, Massachusetts, Wyoming, New Jersey, and Nevada have kept their places in the top ten. Alabama, Oklahoma, Arkansas, West Virginia, and Mississippi appear as the bottom five in all three years, albeit in varying orders.
- New York has consistently topped the *tax effort* rankings (Alaska has topped the revenue effort rankings even though it ranks low in *tax effort* because on a per capita basis it collected almost eight times the national average in nontax revenue sources, primarily through rents and royalties), while Nevada, Tennessee, South Dakota, and New Hampshire have remained relatively low-tax states.
- In terms of *expenditure need*, Alabama, Mississippi, New Mexico, Louisiana, and Texas appear at the top, and Iowa and New Hampshire at the bottom. FY 2002 rankings have given more emphasis to education expenditure needs for elementary school students and children in poverty than the 1999 and 1997 studies. This change in methodology moved some new states into the top ten, namely Arkansas (previously ranked 18th in FY 1999), West Virginia (previously 23rd) and South Carolina (previously 29th).

- New Hampshire, Delaware, Connecticut, Massachusetts, Nevada and New Jersey kept their position in the top ten states with the highest *fiscal capacity*. Due in large part to an increase in energy prices, Alaska reappeared in the top ten in FY 2002, while Wyoming moved up to rank 11. (Alaska had ranked 26th in FY 1999 and Wyoming, 12th.) Alabama, Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma, and West Virginia repeatedly appeared among the ten states with the lowest fiscal capacity during FY 2002, FY 1999, and FY 1997.

Policy options

The benchmarks used in these indices are simply the national averages; they are not proven optimal levels, nor are they necessarily desirable. It would be misleading to qualify above-average index numbers as "excessive" or below-average index numbers as "deficient." Any policymaker seeking to make inferences based on these indices must remember that they measure the fiscal conditions of the states relative to the national average and not necessarily an optimal level.

At the same time, differences in state revenue capacity and expenditure need might justify federal intervention in terms of equalizing grants. Indeed, the federal government might view supplementing revenues for states with low fiscal capacity as part of its redistributive role, as a widely embraced goal of many nations possessing a federalist form of government is to narrow interstate or inter-provincial fiscal disparity.

We find little relation between the amount of federal aid received by states and their fiscal capacity—federal money is not primarily distributed to offset differences in the ability to raise revenues or provide services. While some federal grants are based on fiscally equalizing factors (for example, federal education funds related to the number of children in poverty), other programs require matching funds for states to be eligible for federal grants. Given the current level of federal funds allocated to state and local governments, 91 percent of the gap between revenue capacity and expenditure need across the states could be covered if federal funds were reallocated.

Notes

[1] The District of Columbia has been excluded from this study. D.C.'s characteristics resemble those of a municipality rather than a state; therefore, its results would not be comparable to those of other states. All "national" averages in this study are averages of the 50 states and exclude D.C. as well as other U.S. nonstate entities.

[2] Thus, when we refer to a state we mean the state and all local governments, including counties, municipalities, townships, special districts, and school districts.

[3] Care must be taken when including Alaska in comparisons because of its high dependence on natural resource (petroleum) taxes and rent and royalty payments. None of these revenue sources are borne by Alaska's residents.

[4] Alaska's high expenditures may reflect higher-than-average costs of providing, need for, or demand for public services; a significant amount of expenditures, however, is cash rebates to Alaskan residents. In FY 2002, over $1 billion (an average of $1,695 per resident) was rebated through the Alaska Permanent Fund Dividend program (funded through oil windfalls). See http://www.pfd.state.ak.us/index.aspx for more information.

[5] Comparisons across studies must be qualified since methodologies change over time. The report talks more on the issues surrounding such comparisons.

[6] Because the FY 1999 and FY 1997 studies did not include user charges and other non-tax revenue sources, it is not possible to compare revenue capacity and revenue effort estimates.

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Introduction

State and local government general revenues averaged $5,851 per capita and ranged from $4,694 per person in Arizona to $11,246 in Alaska for FY 2002.[1] General government spending ranged from $4,746 for each resident in Arizona to $13,172 for each Alaskan, according to the Census of Governments. These disparities reflect the different fiscal choices made by states out of either necessity or preference, as well as the ease of raising revenues due to underlying conditions. For example, Alaska's high revenues and expenditures reflect both the relatively painless cost to residents of raising revenues by taxing natural resources and the higher cost of providing services to a smaller and more remote population.

Over the long run, states and their local governments may choose to increase revenues or cut expenditures by promoting tax base growth or reducing long-term costs of public service delivery. In the short run, however, states have fewer options. To be sure, they can raise tax rates or cut programs to balance their budgets. However, cost savings or increases in revenues are limited by the underlying economic and demographic conditions present in the state.

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This report examines the states' fiscal capacity, or their potential ability to raise revenues relative to their need for public service expenditures.[2] We consider a state's fiscal capacity to encompass the revenue-raising ability and expenditure needs of both the state and the local governments found within the state. Because states differ in terms of which level of government collects each type of revenue or provides each service, meaningful comparisons across states are only possible at this level of aggregation. We use the term "state" to refer to this combination of a state and its local governments in the remainder of the report. We use the representative revenue system (RRS) framework to estimate a state's potential revenue raising ability, or *revenue capacity*. In applying this framework (explained in more detail in the following section), we estimate how much revenue a state and its local governments would raise from commonly used state and local taxes, fees, and charges were they to impose the nationwide average effective rate on the "potential" or "standard" base of each tax. A tax's standard base equals its hypothetical value in the absence of nonstandard exemptions, exclusions, deductions, and other tax preferences and tax relief items.

To measure a state's need for public expenditures, we use the representative expenditure system (RES) approach to measure *expenditure need*. This approach involves the following steps: First, one determines the per capita amount spent by U.S. state and local governments on each of several standard spending categories (e.g., highways and bridges, primary and secondary education, public safety). The sum of these per capita outlays is the "standard" nationwide level of state and local public services. Then one evaluates how each state's unique characteristics—economic, demographic, social, and geographic—affect spending per capita.

The *fiscal capacity* of a state is its revenue capacity relative to its expenditure need. A state with low fiscal capacity has a relatively small revenue base, a relatively high need for expenditures, or, as is often the case, a combination of both.

Connecticut ranks first with the highest revenue capacity at $6,272 per person. In comparison, Mississippi, ranked last, would raise only $3,352 with the same revenue system in place. Alaska displays the highest revenue effort of all states, collecting $8,537 compared with a capacity of $5,496. However, care must be taken when including Alaska in comparisons because of its high dependence on natural resource revenues, or revenues not borne by its residents. After Alaska, New York exerts the most amount of revenue effort— raising 22 percent more funds than its underlying level of revenue capacity.

Although Tennessee expends the lowest revenue effort in dollar amounts (collecting $3,451 compared with a capacity of $4,139), New Hampshire actually demonstrates the lowest amount of revenue effort relative to its capacity—collecting only 76 percent of its revenue capacity of $5,482 per person.

Mississippi had the highest expenditure need at $6,800 per person, while Hawaii had the lowest expenditure need at $5,216. Alaska had by far the highest expenditure effort, spending $13,175 per person, compared with a need of $5,995,[3] while Mississippi spent $5,365 compared with its need of $6,800. The top five states in terms of expenditure need – Mississippi, Louisiana, Arkansas, Alabama, and New Mexico – had, on average, 18 percent of their populations living in poverty compared with a national average of 11.5 percent.

Low *fiscal capacity* does not necessarily imply an unbalanced fiscal position; a state can be fiscally sound if it is covering any shortfall through federal transfers or grants, or (in the short run) debt issuance. But low fiscal capacity generally points to some vulnerability,

typically in low service levels, high tax effort or, as we have seen in the case of Hurricane Katrina, less ability to cope with shocks to the economy. Louisiana, Mississippi, and Alabama –the three states hit hardest by Katrina– are among the states with the lowest revenue capacity (in the bottom six for FY 2002), highest expenditure need (top four), and lowest fiscal capacity (bottom five).

A little history

Starting in the Great Depression, formulas for allocating federal grants to state and local governments in the United States have tried to control for different needs across states. That is, grants were not distributed equally but incorporated some additional measure that took into account both a state's need for public services and its ability to raise revenues. This measure was referred to as fiscal capacity. Other countries with regional governments also use fiscal capacity measures; for example Canada has used a fiscal capacity measure in its federal-provincial equalization system since 1957.[4] Strictly speaking, fiscal capacity is the potential ability of states to raise own-source revenue relative to the cost of service provision in that state.[5] Before 1962, the measure most used in the United States to represent fiscal capacity was per capita personal income.[6] Controversy existed over this measure's validity as an indicator of revenue-raising ability. Two objections were raised: personal income fails to reflect the diversity of existing state tax and revenue sources, and it fails to take into account the ability of states to "export" taxes.

In 1962, two economists (Selma Mushkin and Alice Rivlin) at the U.S. Advisory Commission on Intergovernmental Relations (ACIR) published a report detailing the representative tax system (RTS) as an improved measure of fiscal capacity. The RTS was

essentially the average tax system of all the states applied to each state's potential tax base. A state's total "tax capacity" divided by its population was the measure of fiscal capacity. While complex in its calculations, the RTS better reflected the ability of states to raise revenues and made possible analysis of different revenue sources.

In 1986, the ACIR introduced an expansion of the RTS—the representative revenue system (RRS). The RRS included nontax revenues such as rents and royalties, user charges, and lottery revenues. The terminology changed accordingly, and the fiscal capacity measure became a state's "revenue capacity" divided by its population.

Analysts began to question the assumption that the cost of service provision could be proxied by a state's population without taking into account differences in income level or demographics. Accordingly, in 1990 the ACIR and Robert Rafuse developed the representative expenditure system (RES) to model more accurately the cost of providing public services in each state. Previously, fiscal capacity measures only took into account per capita considerations when assessing revenue and expenditure levels. At the time, a growing number of analysts were challenging the assumption that the service needs of a state's governments depend only on the total population in the state. As a result, Rafuse's system addressed the "neglected dimension of fiscal capacity." The RES features "workload factors" for each category of public expenditure (such as elementary and secondary education or public welfare). Thus, states with a relatively high population of school-age children or more people in poverty would have a higher expenditure need in the categories of elementary and secondary education and public welfare, respectively. The RES also incorporates an input-cost index, which accounts for price differences across states.

In all, ACIR produced 12 reports from 1962 to 1993. After ACIR was disbanded, Robert Tannenwald at the Boston Federal Reserve took over the project and published reports approximately every two years in the remainder of the 1990s. He also changed the terminology: fiscal capacity, a term used somewhat interchangeably to describe tax or revenue capacity and the comparison of RTS or RRS and RES, was changed to fiscal comfort to avoid potential confusion. In this report, we have reverted to the original use of fiscal capacity to reflect international consensus about this term. We use "fiscal capacity" to refer to the ratio between tax/revenue capacity and expenditure need.[7]

This study reviews the basic concepts and methodology used and presents the state scores and rankings for *revenue capacity*, *revenue effort*, *tax capacity*, *tax effort*, *expenditure need*, and *expenditure effort* for FY 2002. We then combine measures concerning revenues and expenditures to measure fiscal disparities between states and create a measure of *fiscal capacity* and calculate the *fiscal gap at capacity*. Also included is an appendix with a glossary of terms; a detailed description of the RRS, RTS, and RES frameworks; and the sources and methods used in constructing the required data series for the study. The entire dataset is available for download at the Tax Policy Center and the Federal Reserve Bank of Boston's New England Public Policy Center web sites or can be requested from the authors.[8]

This is the first such study undertaken by the Tax Policy Center in collaboration with the New England Public Policy Center at the Federal Reserve Bank of Boston.

Basic concepts and methodology

Representative revenue system (RRS)

As noted in the previous section, revenue capacity is the total amount of revenues that a state (and its localities) would have raised if it were to levy a set of taxes, charges, and fees that represented the average of all states' taxes, charges, and fees. Revenue capacity allows us to compare states' abilities to raise revenues independent of the policies actually implemented in each state. The *representative revenue system* (RRS) is the collection of information needed to calculate revenue capacity. Table 1 shows the 23 revenue sources used in this study, including general and selective sales items, license fees and taxes, personal and corporate income taxes, taxes on property, lottery revenues, general charges,[9] and two additional categories covering all remaining tax and nontax revenues.[10] In the past, some reports have looked at only tax revenues. Correspondingly, the framework was called the representative tax system (RTS) and calculated *tax capacity* instead of revenue capacity. RTS measures have been included as needed for comparisons with past reports.

For each revenue item, the *standard base* is the base that is potentially taxable; it includes the value (or volume) of all economic stocks or flows that the state and local governments would have been able to tax, levy charges on, or raise revenues from in the absence of nonstandard exemptions, exclusions, deductions, and other tax preferences and tax relief items. It is important to note that the determination of what should be included in the standard base for each revenue source is subjective. Generally, long-standing exemptions required by political, legal, or administrative necessities (for example, personal exemptions in income taxes or exclusion of business services from the sales taxes) are taken

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out of the standard base, while incentives or breaks intended to elicit certain behaviors or relieve particular constituents are left in the base (Tannenwald 1998).[11]

For each revenue item, the *representative rate* is the average effective rate of revenue collection (tax rate or charge/fee schedule) that prevails across the nation. The representative rate is calculated by dividing the national actual revenue collections by the national standard base for each revenue item. For example, in fiscal year 2002, state and local government tax collections for the personal income tax totaled $202 billion for all 50 states, while the standard base was $6 trillion (table 1). It is important to stress that the use of these standard measures is based on national averages and does *not* reflect a normative decision on what the proper size of government is or what the optimal tax rate on a given item or economic activity should be.

Revenue capacity for each state is calculated by applying the representative rate to the standard base for each item and adding all the revenue item capacities. Finding the relative position of each state compared with the national average revenue capacity creates an *index of revenue capacity* by which states can be compared.

Taxes are generally the largest source of revenue for state and local government, and a state with a large stock of wealth or economic flow in traditionally taxed areas has a large revenue capacity (Tannenwald and Turner 2004). As evident from table 1, general sales, personal income, and property taxes accounted for more than half of state and local revenue collections in FY 2002.[12] Consequently, states with high per capita income and high property values tend to have high revenue capacity. Severance taxes, or extraction taxes on natural resources, are relatively small sources of revenue in aggregate (see table 1). However, because natural resources are concentrated, a few natural resource–rich states (for

example, Alaska and Wyoming) rank high in terms of their revenue capacity owing to the large amount of revenues they can obtain from these resources. States collected approximately 20 percent of their revenues from user charges and fees (for example, school fees and tuition, hospital charges, transportation fees, toll collections, parking revenue, and others), and 11 percent from nontax items such as sale of property and interest income.

By comparing a state's actual revenues to its revenue capacity, we can derive a measure of *revenue effort*. States with high revenue effort take in more revenues than they would under the representative system. Ranking each state's revenue effort relative to the national average creates the *index of revenue effort*. This measure reveals how intensively each state raises revenues—both within each tax or revenue category, and in total revenues relative to the national average. Box 1 presents a step-by-step description of the calculations of revenue capacity and revenue effort.

Box 1. Calculating revenue capacity and revenue effort with selected examples

Step 1. Collect data on revenues received by each state (and its localities) for each of the bases in the representative revenue system.

Step 2. Construct the *standard base* for revenue source in each state, including all sources that could be potentially taxed (or incur charges/fees). (See appendix on RRS methodology on the base calculations.)

Step 3. Compute the *representative rate* for each revenue base, by dividing total nationwide collections by the national total base for that revenue item. This creates the *representative revenue system* (table 1).

Step 4. Apply each *representative rate* to the corresponding revenue item in every state. This determines the hypothetical revenue capacity if every state used the representative system as its revenue-raising system.

Step 5. Add together the hypothetical revenue yields from each revenue source in each state to obtain the total *revenue capacity* in each state.

Selected examples   2002 total revenue capacity

U.S. (all 50 states)	$1,338,934 million
New York	$100,351 million
Texas	$92,786 million
Virginia	$34,550 million

Step 6. Divide total revenue capacity in each state by its population to determine per capita capacity.

Selected examples	2002 population	2002 per capita capacity
U.S.	287.38 million	$4,659
New York	19.15 million	$5,240
Texas	21.72 million	$4,271
Virginia	7.27 million	$4,750

Step 7. Divide each state's per capita capacity by the national capacity collections and multiply by 100. The result is the revenue capacity index, with an index number of 100 corresponding to the national average.

Selected examples	Index calculation	Index number	Revenue capacity rank
U.S.	NA	100	.
New York	$(5,240/4,659) \cdot 100$	112	9
Texas	$(4,271/4,659) \cdot 100$	92	33
Virginia	$(4,750/4,659) \cdot 100$	102	17

Step 8. Divide each state's actual revenue collections by the state's population to get collections per capita.

Selected examples	Total revenues	Per capita revenues
U.S.	$1,338,934 million	$4,659
New York	$122,107 million	$6,376
Texas	$87,273 million	$4,017
Virginia	$33,138 million	$4,556

Step 9. To calculate *revenue effort*, divide each state's per capita collections by its per capita capacity and multiply by 100.

Selected examples	Index calculation	Index number	Revenue effort rank
U.S.	NA	100	.
New York	(6,376/5,240) · 100	122	2
Texas	(4,017/4,271) · 100	94	37
Virginia	(4,556/4,750) · 100	96	33

Sources: ACIR and authors' calculations.

Representative expenditure system (RES)

A state with a high revenue capacity and high revenue effort may still be in a fiscally weak position if it also has high expenditure need. *Expenditure need* measures how much a state must spend per capita on its residents to provide the basic services typically offered by state and local governments across the country. While it is the conceptual analog to revenue capacity, expenditure need involves more complex calculations. To do so, one must answer the following questions: First, what standard mix of public services do state and local governments typically offer? Second, what constitutes a standard level of services for each expenditure item in this mix? Third, what would each state and its municipalities have to spend, in per capita terms, to provide this standard set and level of services?

The standard array of services are services typically provided by state and local governments, evidenced by their inclusion as a large category in the Census of Governments. This study includes six such functions—basic (K–12) education, higher education, public welfare, health and hospitals, highways, and police and corrections—that constituted 71 percent of all direct general expenditures for state and local governments in FY 2002 (see box 2 for more detail).[13] A lump-sum category of "other" expenditures covers

environment and housing, interest on general debt, governmental administration, and all other direct general expenditures. The *standard level of services* is the nationwide average of the per capita spending for the provision of these services. The *representative expenditure system (RES)* is the collection of per capita average expenditures that prevail in the entire nation over this standard bundle of services. Again, we must stress that the level of services estimated represents the national average, but does not reflect a normative measure of the optimal level of services.

Box 2. What functions are in the expenditure need calculation?

Elementary and secondary education: Includes expenditures associated with the operation, maintenance, and construction of public schools and facilities for elementary and secondary education (kindergarten through high school), vocational-technical education, and other educational institutions except those for higher education, whether operated by independent governments (school districts) or as integral agencies of state, county, municipal, or township governments; and financial support of public elementary and secondary schools.

Higher education: Includes expenditures associated with operating higher education institutions and auxiliary enterprises connected to those institutions.

Public welfare: Includes federal and local cash assistance payments such as Supplemental Security Income and Temporary Assistance for Needy Families (TANF), intergovernmental aid under the federal Medicaid program and cash payments made directly to individuals, contingent upon their need. It also includes vendor payments under public welfare programs made directly to private vendors for medical assistance and hospital or health care, including Medicaid (Title XIX), on behalf of low-income or other medically needy persons unable to purchase such care. Provision, construction, and maintenance of nursing homes and welfare institutions owned and operated by a government for the benefit of veterans or needy persons and public employment for all public welfare activities and expenditures for welfare activities not classified elsewhere are also accounted for in this category.

Hospitals: Includes expenditures associated with the maintenance of hospital facilities directly administered by the government and provision of care at other hospitals, public or private.

Highways: Includes expenditures associated with the maintenance, operation, repair, and construction of toll and non-toll highways, streets, roads, alleys, sidewalks, bridges, tunnels, ferry boats, viaducts, and related structures.

Police protection and corrections: Includes expenditures associated with the preservation of law and order, protection of persons and property from illegal acts, and the prevention, control, investigation, and reduction of crime and expenditures associated with institutions or facilities for the confinement, correction, and rehabilitation of convicted adults or juveniles adjudicated delinquent or in need of supervision, and for the detention of adults and juveniles charged with a crime and awaiting trial.

Other: Includes environment and housing (expenditures associated with the development and conservation of natural resources, parks and recreation, housing and community development, and the provision, maintenance and operation of sanitation services); government administration (expenditures associated with the provision, maintenance, and operation of government finances, judicial, legal, and legislative institutions, public buildings, and other staff services) and interest on general debt (amounts paid for use of borrowed monies, excluding utility debt, paid by all funds of the government).

Source: Government Finance and Employment Classification Manual, http://www.census.gov/govs/www/class.html.

Note: The expenditure figures used in this study include all direct state and local general expenditures. They exclude all direct federal and intergovernmental expenditures (but include, for instance, money that is spent as part of federal grants to states, or state grants to local municipalities).

To determine how much each state and its localities must spend to finance this standard mix and level of services, we must account for demographic, socioeconomic, and even geographic characteristics that would affect a state's needs. The characteristics used in estimating relative expenditure needs are called the *workload factors*. These factors help reallocate the total nationwide expenditures for a given function across states in proportion to each state's needs. For example, the number of people in poverty in a given state (in proportion to the total population in poverty in the entire nation) is part of the workload factor used in calculating the state's needs for welfare expenditures—the higher the state's

share of people in poverty in the national total compared to its share of the overall population, the more money the state needs out of the national public welfare expenditure pool. As one can see from this example, the workload factors do not take into account a state's preference for or ability to fund public services, and therefore they are a policy-neutral way of analyzing expenditure need.

After calculating expenditure need using the workload factors, we must still account for differences across states in the cost of providing public services. This study uses an *input-cost index* (calculated for each state based on the prevalent labor costs in the state) to adjust the expenditure estimates. The methodology behind the input-cost index is explained in appendix C. The input-cost-adjusted expenditure need for each state is used to calculate the *index of expenditure need*, which ranks states' per capita expenditure needs with respect to the representative expenditures. Box 3 provides a step-by-step description of how the representative expenditure system and the index of expenditure need are calculated.

Because education and public welfare account for almost half of state and local expenditures, the relevant workload factors, particularly the share of school-age children in the population and the poverty rate in states, play a large role in the determination of need. In fact, the share of total expenditure needs in these two categories can explain 87 percent of the variation in the index for expenditure need.[14] For example, in Texas, the relatively large size of the school-age cohort likely to attend public schools, coupled with high child poverty rates (22 percent compared with 17 percent nationally) increases the need for education expenditure.

A measure of states' service provisions (that is similar to revenue effort in concept) is the ratio of actual expenditures to the estimated expenditure need for a given state. By comparing the actual expenditures to the expenditure needs (which are already adjusted for demographic variations and variations in input costs), we build an *index of expenditure effort* to pinpoint states that spend under and over what we expect them to spend based on a nationally representative set of expenditure policies. Comparing actual expenditures to expenditure need could highlight state and local governments' efficiency (or inefficiency) in service provision (controlling for service level), and the differences in voters' demands for public services.[15] Because of balanced budget rules in place in 49 of the 50 states, limited expenditure effort could also be indicative of low revenue capacity—that is, both sides of government budgets must balance, so for a state with low revenue capacity meeting high expenditure needs will entail higher tax rates in place. We consider the connection between revenues and expenditures further in the next section.

Box 3. Calculating expenditure need

Step 1. Determine basic expenditure functions to be included in the study. The list must include expenditure items common to all state (including local) governments. This study works with six such factors (in addition to one lump sum "other" category): K–12 education, higher education, public welfare, health and hospitals, highways, and police and corrections. In FY 2002, these categories accounted for 71 percent of all direct general expenditures for state and local governments.

Step 2. For each expenditure item, identify *workload factors* that will determine the relative need across states. These workload factors generally include socioeconomic, demographic, and geographic characteristics not directly influenced by state policies, at least in the intermediate run. For example, for secondary education, the workload factor used is the number of secondary school–age children and the proportion of children in poverty.

Step 3. Because the focus is on relative need, express each state's workload factor as a percentage of the national workload factor. Below are the workload factors for K–12 education (which include the number of school-age children and the number of children in poverty), higher education (which include the cohorts above age 14) and welfare (which use the population living in poverty):

Workload factor for	K–12 education	Higher education	Welfare
U.S.	100.00%	100.00%	100.00%
New York	6.12%	6.61%	7.92%
Texas	8.87%	8.02%	9.26%
Virginia	2.42%	2.38%	1.97%

Step 4. Compute an input-cost index to account for the differences in the cost of providing services across states (See appendix C on RES methodology for details). The index should reflect variations in input costs across states and take into consideration all sources of compensation (payroll and non-payroll).

Input-cost index for	K–12 education	Higher education	Welfare
U.S.	100.00%	100.00%	100.00%
New York	103.16%	102.91%	100.43%
Texas	99.12%	99.19%	99.88%
Virginia	102.58%	102.37%	100.35%

Step 5. For each expenditure function, multiply the national total direct general expenditure with each state's workload factor to estimate expenditure need. Then, adjust the expenditure need for the cost of service provision for each state. Normalize this figure so that the total national expenditure need for each item equals the actual national expenditures. Divide this number by the state's population to calculate the per capita expenditure need.

Per capita expenditure need: Welfare	K–12 education	Higher education
U.S.	$1,427	$545	$ 973
New York	$1,351	$557	$1,162
Texas	$1,659	$574	$1,191
Virginia	$1,397	$524	$ 759

Step 6. For each state, sum up the per capita expenditure need calculations across all expenditure items.

Selected examples   *Per capita expenditure need*

U.S.	$6,007
New York	$6,052
Texas	$6,496
Virginia	$5,764

Step 7: Index each state's expenditure need to the national average to calculate the *index of expenditure need*.

Selected examples	Expenditure need index	Rank
U.S.	100	.
New York	101	19
Texas	107	6
Virginia	96	30

Fiscal capacity

A state's *fiscal capacity* is its tax capacity relative to its expenditure need.[16] The *index of fiscal capacity* ranks states in terms of their fiscal ability relative to the national average, and gives a sense of each state's ability to fund its expenditure needs through its own resources. A state with low fiscal capacity has a relatively small revenue capacity, a relatively high need for expenditures, or a combination of both. Although such a state may be able to fill in the gap between revenues and expenditures through federal grants, it is also likely that states with low fiscal capacity are in relatively weak fiscal positions that may result in poor service levels or reduced ability to cope with economic shocks. We will consider these disparities in fiscal capacity levels between states in more detail below.

A state's *fiscal gap* is the difference between actual revenues and expenditures. The *fiscal gap at capacity* is the difference between revenue capacity and expenditure need. That

is, it measures whether a state can meet a goal of providing our standard set of government services with average tax rates and charges in place.

Differences in *fiscal disparity* (as measured by differences in fiscal capacity or fiscal gaps at capacity) within the nation can be especially interesting to national policymakers, since a widely embraced goal of many nations possessing a federalist form of government is to narrow interstate or inter-provincial fiscal disparity. Concern about fiscal disparity rests primarily on two interrelated normative considerations. First, access to some minimum level of state and local public services is desirable. Second, as long as fiscal disparity exists, residents of states with higher fiscal capacity bear a lower tax burden to obtain this minimum than residents in states with lower fiscal capacity. Moreover, these differences exacerbate fiscal disparity over the long run by trapping fiscally stressed states in a vicious circle. The more intensively they tax, the more they might drive away capital and labor, the more fiscally stressed they become, the more they must raise tax burdens to provide the minimum level of desired services, and so on. What this minimum level of service is would be a normative choice and is *not* equal to the rates used in this study. However, rank ordering of states by differences between revenue capacity and expenditure need would be similar no matter what representative tax and expenditure rates are chosen.

Box 4. Alternative measures of fiscal capacity: Actual revenues, personal income, state gross product, and total taxable resources

The fiscal capacity of a state is its ability to raise own-source revenues through state and local government taxes, fees and charges relative to its need for public services. The representative approach used in this report narrowly defines the two components of fiscal capacity—revenue capacity and expenditure need—as hypothetical revenue collections and expenditures a state would have realized had it followed the average revenue and expenditure policies that prevail across the nation. However, given the amount of data

collection and calculations required of the representative approach, policymakers often seek alternative measures of fiscal capacity.

Actual revenues. The crudest measure of revenue capacity is a state's current tax or revenue collections. Although simple to compile, actual revenues are a poor proxy of the state's ability to raise own-source revenues because revenue policies and tax enforcement efforts vary considerably.

Personal income. An alternative measure of revenue capacity, commonly used in calculations of a state's "tax burden," is the personal income of the state. But this measure is an incomplete proxy; personal income is one among many sources of revenue for the state. A state's revenue capacity also depends on its ability to "export" its taxes—shift its tax burden to nonresidents by taxing economic resources or rents outside its jurisdiction.

Gross state product (GSP). Gross state product—the total values of goods and services produced by a state's economic resources—is sometimes used as a measure of fiscal capacity to account for the ability to export taxes. Like personal income, a state's gross product encompasses all the income earned by its population, but also includes income generated within the state without regard to the location of the entity receiving the income. Compared to personal income, GSP better reflects the total amount of economic activity potentially subject to taxation by a state, but does not include the income earned by its residents from out-of-state sources, which is a source of income that may be—but is not often—taxed by states.

Total taxable resources (TTR). The U.S. Department of Treasury has adopted a method known as total taxable resources as the official measure of states' revenue capacities. TTR adds to GSP the income earned from out–of- state sources and direct federal transfer payments (e.g. unemployment insurance, social security), while subtracting certain indirect federal taxes and contributions to social insurance programs.

An underlying concern in all these measures of fiscal capacity is that they present a one-dimensional perspective of a state and local government's ability to raise revenue. In other words, they consider all potential revenue bases in a state equally valid sources of revenue. Subject to prevailing norms, however, different revenue bases are subject to different levels of taxation across the states; as a result, some bases are more plausible sources of revenue than others.

In addition, the above measures have traditionally calculated the "needs" component of fiscal capacity through strict per capita comparisons, assuming that the demand for public service provision only depends on a state's population. This is a limitation to the above-mentioned measures, as public expenditure levels often depend upon more narrowly defined segments of a state's population or geography.

Compared with the representative approach, the alternate measures of fiscal capacity are easier to compile and compute, yet their generalized, more simplistic approach limits their

usefulness. The RRS/RES methodology used by this report provides an exhaustive, data-intensive approach to understanding the fiscal capacity of a state and its local governments. By using disaggregated data and representative rates, policymakers are able to not only ascertain a state's relative level of fiscal capacity, but also draw out underlying levels of revenue and expenditure effort amidst various tax bases and spending categories.

A note on interpreting the results

The *RRS* and *RES* frameworks provide a simple, yet powerful way of looking at

interstate fiscal disparity. The frameworks have a number of advantages for policy makers

and over alternative measures (see box 4). First, the *revenue capacity*, *expenditure need*, and

fiscal capacity measures allow for a judgment on how states compare in their ability to

finance expenditure needs from their own resources (on a per capita basis). Second, the

measure of *revenue effort* (ratio of actual revenues to revenue capacity) across states gives a

sense of the different policy choices that states have made. One can look at how a state's

revenue effort varies across different revenue items to obtain further insight on various

alternatives to the state's existing tax composition. Third, the measure of *expenditure effort*

(ratio of actual expenditures to expenditure need) could help identify states that spend

more or less than what we expect based on their demographic characteristics. Fourth, the

RRS combined with the *RES* give a sense of how intergovernmental grants could be

allocated to offset shortfalls faced by states experiencing a high amount of fiscal hardship—

specifically highlighting states with low revenue capacity and high expenditure needs.

Nonetheless, some caveats on the interpretation of the results are in order. First,

revenue capacity, *expenditure need*, and *fiscal capacity* are calculated through *mechanical exercises*

repeated over an identical set of tax and expenditure items for each state. Thus, the

estimations omit important variables related to administrative constraints, historical factors, institutional strengths or limitations, constituent preferences, and service provision limitations or inefficiencies that might shed light on why certain states rank the way they do. For example, a high measure of *expenditure effort* (actual expenditures to expenditure needs) tells us little about why a state spends more than the representative amount.

Additionally, the benchmarks used in indices are simply the national averages; *they are not proven optimal levels, nor are they necessarily desirable*. It would be misleading to qualify above-average index numbers as "excessive" or below-average index numbers as "deficient." Further, the RRS/RES framework is a static picture of prevailing policies in the nation, and the findings on their own are insufficient for fiscal policy recommendations (without restrictive assumptions on, for example, the elasticity of the revenue bases to the tax rates and user charges).

Lastly, although some results from past studies are included in the current report, intertemporal comparisons of these numbers should be made cautiously for two reasons. First, the methodologies used in the calculations of the revenue capacity and expenditure need numbers have changed from year to year. These changes have occurred as old data became unavailable or new data were made available, and as researchers improved calculations to better reflect changes in tax bases or service delivery. For instance, the FY 2002 report includes, in the revenue capacity calculation, nontax items such as net lottery revenues that were not included in the FY 1999 report, to reflect the increasing prevalence of these public revenue sources. We have also changed the factors underlying some expenditure categories to reflect a changing understanding of what affects the costs of provision of given services.

On this point, the indices are relative measures and so changes in a state's index do not necessarily translate into real changes in their revenue capacity or expenditure need. For example, South Dakota received an index score of 96 in the tax capacity index for both FY 1999 and FY 2002. The correct way to interpret this score for both years is "South Dakota's tax capacity was slightly below the national average in FY 1999 and FY 2002," and not "South Dakota maintained the same tax capacity." In fact, South Dakota experienced a slight decline in its tax capacity from $3,090 in FY 1999 to $3,049 (both in 2002 dollars). Since other states also experienced a decrease in their tax capacity, South Dakota maintained its relative position. Given these problems in intertemporal comparisons, we only look at large movements in state rankings as informative on a state's relative performance. The results are discussed in the next section.

RRS and RES results for FY 2002

Representative revenue system

Table 2 displays the revenue capacity and revenue effort indices and state rankings for the 50 states for FY 2002. The average revenue capacity is $4,659. Connecticut ranks highest with a revenue capacity of $6,272 and a revenue capacity index of 135, while Mississippi has the lowest revenue capacity at $3,352 and an index of 72. Alaska shows the highest revenue effort of all states, collecting $8,537 compared with its capacity of $5,496, while New Hampshire displays the lowest effort, collecting $5,482 to its capacity of $4,142. Again, part of Alaska's revenue effort reflects a transfer of payments to its residents; that is, Alaska is able to export more than 100 percent of the revenue burden needed to govern the state and to raise revenues that are then remitted to residents.

In 2002, revenue capacity correlated strongly with high average household incomes (Mid-Atlantic and New England states),[17] high property values (California, Colorado), and availability of large energy resources (Alaska, Wyoming). Other states have specific sources of well-cultivated revenue; Nevada's high tax capacity is largely due to gambling establishments, while Delaware—a corporate income tax haven—benefits from the high license fees it charges to companies incorporated within the state. Geographically, states in the central area of the country—especially the South Central states—lag behind other regions and the national average (figure 1). These patterns mirror the results from past years.

Appendix table D2 presents the revenue and tax capacity results for various years. Because the FY 1999 study did not include nontax revenues, we look at the changes in the tax capacity index over the past few years to compare over time differences. Between FY 1999 and FY 2002, 14 states moved by six or more positions in tax capacity rankings. The most significant moves were by Kentucky, which moved from 44 to 30; Arizona, which moved from 25 to 37; and Rhode Island, which moved from 39 to 28. Increasing energy prices helped Alaska, Colorado, and Wyoming climb up in tax capacity rankings, while Hawaii continued to drop in the rankings as its tourism revenues remained stagnant.

Revenue effort results show fewer regional trends. Mid-Atlantic states show higher revenue effort than other regions (figure 2). Again, because the FY 1999 study did not calculate revenue effort, we are only able to look at changes in tax effort between 1999 and 2002 (see appendix table D3). Among the states that showed the largest swings in tax effort, Massachusetts, Colorado, and Idaho moved down in the rankings as their property tax rates (averaged across all types of property) went down. Texas, together with Wyoming and

Nebraska, moved up in the rankings, even though its severance revenues (and oil production) fell significantly from 1999 to 2002.[18]

It is worth noting that a high revenue effort index score does not necessarily mean that a state's residents experience relatively high taxes or charges. Some revenue sources are not effectively captured in the representative system, particularly for natural resource–rich states that rely more heavily on interest revenue and other revenues stemming from their natural resources. Thus, the high revenue effort seen for Alaska and Wyoming may actually stem from an underestimation of their revenue capacities.

Representative expenditure system

Table 3 presents the expenditure need and expenditure effort indices for FY 2002. Mississippi had the highest expenditure need at $6,800 per person, giving it an expenditure need relative rating of 113, while Hawaii had the lowest expenditure need at $5,216 with an index of 87. Alaska had by far the highest expenditure effort index at 220, spending $13,175 per person compared with a need of $5,995, while Arkansas had the lowest index at 74, spending $4,827 compared with its need of $6,539.

States with high expenditure needs are generally those with a combination of high poverty rates, a large primary and secondary school–age cohort (age 5 through 17), and high crime rates. Southern Central states had the highest expenditure need while index scores for the Mid-Atlantic, New England, North Central, and Pacific states were below average (figure 3). The top five states in terms of expenditure need—Mississippi, Louisiana, Arkansas, Alabama, and New Mexico—had, on average, 25 percent of their population under age 18 living in poverty (the average across the United States is 16.5 percent). Moreover, these same five states collectively accounted for over 9 percent of the capital

crime in the entire nation while their population accounted for 6 percent of the U.S. population.

Some changes from FY 1999 to FY 2002 can be attributed to methodological updates made in the calculation of secondary education and public welfare expenditure need. Previous iterations of this study used Robert Rafuse's original assumptions that the primary to secondary per pupil cost ratio is 0.60 and children in poverty cost 25 percent more to educate. The per pupil costs at the primary level have been increasing over the past decade—from 1999 to 2005, this ratio climbed from 0.79 to 0.86.[19] For this report, we assume that the cost ratio is 0.85. We also adjust the additional costs required to educate children in poverty from 25 percent to 50 percent. This percentage better accounts for the costs of compensatory education, special education, language education programs, and supplemental services, as well as the other costs related to operating a school in a poor area such as transportation, school lunch, theft, and vandalism (Rothstein 2001).

The other methodological change is in the public welfare calculation, which now incorporates the percentage of the elderly (above 75 years) that live in poverty into the workload measure. This change was made because Medicaid expenditures for long-term care constitute a significant portion of the state welfare expenditures and the elderly/poor population in each state is a good proxy for measuring the need for such expenditures. Previous methodologies only considered the percentage of a state's population in poverty.[20]

The measure of expenditure effort—comparison of actual per capita expenditures against the expenditure need—is a new addition to the RES framework in the FY 2002 study. Pacific, Mid-Atlantic, and New England states generally spend more than their

expenditure need measure predicts, whereas South Central states typically spend less than their "need" estimates (figure 4).

Comparing the expenditure effort to expenditure need, one sees that the relation between actual expenditures and expenditure need is not necessarily strong.[21] Alaska, the top spender in the list, ranks 21st in the index of expenditure need, whereas Arkansas, which ranks third in the expenditure need index, is last in the expenditure effort rankings. On the other hand, a strong, positive relationship exists between expenditure effort and revenue capacity—states with above-average revenue capacities tend to spend relatively more than their expenditure need would indicate (figure 5). These states also tend to have above-average revenue efforts (the correlation between revenue effort and expenditure effort is 0.63).

Fiscal capacity in FY 2002

Following Tannenwald (1998), we construct a measure of fiscal capacity (previously called "fiscal comfort" by Tannenwald) for each state by dividing the state's revenue capacity index number by its score on the expenditure need index. Table 4 presents the results and the rankings for FY 2002. A high measure of fiscal capacity signals that a state has a large "representative" revenue base relative to a "standard" level of expenditures. Conversely, if a state has a low measure of fiscal capacity, the measure indicates that the state has a high amount of "standard" expenditure need relative to its "representative" revenue base. Because revenue capacity and expenditure need are strongly and negatively correlated (figure 6), with few exceptions, the rankings for the fiscal capacity index closely resemble the rankings for revenue capacity. The Mid-Atlantic, New England, and Pacific

states place near the top of the distribution, while the South Central states settle near the bottom.

As mentioned before, the FY 2002 study finds a strong, negative correlation between revenue capacity and expenditure need (figure 7). In other words, the neediest states also have the least amount of own resources available to them. The correlation coefficient for the two index numbers is -0.57—in other words, 33 percent of the variation in either of these two indices is predicted by variation in the other index. Further, similar relationships exist between these two statistics in both the FY 1997 and FY 1999 studies.

Could states with high expenditure needs meet these needs by increasing revenue effort? Comparing the fiscal capacity index with the revenue effort index shows that states in relatively weak fiscal positions are wary of raising tax rates (figure 8). This could be due to fear that aggressive taxing may only exacerbate fiscal disparities by driving away the tax base. Tannenwald and Turner (2004) note that variation in preferences for public services may be inferred from the correlation between state tax effort and fiscal capacity. If all states desired a uniform level of services, then states with low fiscal capacity would have to tax their bases relatively intensely or exhibit high tax effort to provide the desired level of services. In contrast, a state with high fiscal capacity could have a relatively low tax effort and still provide the desired level of services. We find that some states with relatively high fiscal capacity are providing higher levels of services—spending more rather than lowering tax rates. Meanwhile, some states with low fiscal capacity rankings have high and others have low revenue effort rankings. This suggests that states are making different decisions on what trade-offs to make between spending and revenues.

Closing the fiscal gap: Federal intergovernmental transfers

While the fiscal capacity measure looks at the share of the per capita expenditure needs a state could cover through its own resources assuming a standardized level of tax rates and service provision, another way of measuring the potential mismatch between revenues and expenditures is to measure the fiscal gap at capacity—the difference between revenue capacity and expenditure need that a state would have faced had it followed the representative revenue and expenditure model. The *gap at capacity* standardizes away from policy decisions and looks at underlying structural fiscal imbalance. In effect, if everyone were raising revenue at the same effort and providing services at the same levels, which states would still have a gap? Would federal aid close the gap? *At its current level, could federal aid close the gap if it were reallocated?*

During FY 2002, states raised $1.68 trillion in general revenues ($358 billion of which was generated through federal transfers) and spent $1.73 trillion in general expenditures.[22] Table 5 examines how federal intergovernmental aid compares with our measures of actual and calculated fiscal gaps at capacity and asks how much federal transfers would have offset *fiscal gap at capacity* if states were to follow the representative tax and expenditure policies. That is, do federal transfers reflect this difference in ability to pay and expenditure need?

During FY 2002, the *actual fiscal gap*, or the difference between own-source revenues raised and expenditures, averaged $1,409 per capita across the states. Each state received, on average, $1,331 per capita from the federal government and faced a $78 per capita shortfall after federal transfers. After accounting for federal transfers, 19 states had a

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negative *fiscal gap after transfers*—the ability to pay for all expenditures through a combination of own-source revenues and federal transfer payments.

What would happen to a state's *fiscal gap* if it were to follow the representative approach in setting its revenue and expenditure policies? *Fiscal gap at capacity* measures this hypothetical scenario. Some states (those that tend to have low revenue effort or higher expenditure effort) would realize an increase in their fiscal gap. Other states (those with high revenue effort or low expenditure effort) would experience a decline in their fiscal gap, and four states would be able to cover their expenditure needs completely through their own resources, without having to rely on intergovernmental transfers. These four states would have a *negative fiscal gap at capacity* or a *fiscal surplus*.

Actual federal government transfers to the states in FY 2002 would have been enough revenue to completely close any gap between the estimated revenue capacity and expenditure need calculated in 24 states (compared with 19 states that did not have an actual gap after accounting for federal transfers in FY 2002). Meanwhile, those states with large fiscal gaps at capacity would still face large fiscal gaps under the representative model, even after accounting for current federal transfers. Put another way, actual federal transfers could not close the fiscal gaps in all states if each state adopted representative revenue and expenditure policies.

The current allocation of federal money takes into account more than just each state's expenditure need. For instance, federal Medicaid money flows to the states not only on the basis of each state's expenditure need, but also under a matching program to encourage states to expand their coverage. States able to expend more from their own coffers will receive more from the federal government. As a result, no clear pattern exists in

the relationship between the federal money that a state receives and its fiscal gap at capacity; the correlation between a state's fiscal gap at capacity and the amount of federal transfers that it receives is 0.10 (figure 9).

Would the federal government have been able to cover the fiscal gap at capacity for all states by reallocating its intergovernmental transfers? The total sum of fiscal gaps at capacity across the 46 "gap" states stood at $391 billion in FY 2002. Given the $358 billion of federal transfers to the states in FY 2002, the federal government could not have erased entirely the fiscal disparities that exist across the states simply by reallocating transfers among states. But a reallocation of federal funds could help lessen the gaps found; indeed, federal funds would have covered 91 percent of the hypothetical fiscal gap at capacity that exists across states. Thus, reallocating federal transfers could help close the fiscal gap at capacity. Federal transfer programs serve multiple purposes, however, and the lack of correlation between fiscal gaps at capacity and federal funds reflects the myriad of goals in place.

Conclusion

Fiscal disparities across states persisted in FY 2002. As the Mid-Atlantic and New England states continued to have the highest measures of fiscal capacity while exerting considerable revenue effort, the South Central states continued to be the lowest fiscal capacity states, with the lowest amount of revenue capacity combined with high levels of expenditure needs.

State revenue capacity and effort continue to correlate, and states with high revenue capacity tend to spend more per capita. The correlation between fiscal capacity and revenue

effort across the states continues to remain insignificant in 2002, as does the correlation between actual expenditures and representative expenditure need. There is evidence of a negative correlation between revenue capacity and expenditure need; that is, the states with the highest representative level of need seem poorly positioned to raise required funds.

Differences in state revenue capacity and expenditure need might provide a justification for federal intervention in terms of equalizing grants. Indeed, the federal government may view supplementing revenues for states with low fiscal capacity as part of its redistributive role. But the decision to implement any equalization scheme must take into account that new funds might be used to offset existing spending programs or lead to overinvestment in certain expenditures based on a reduced price of providing services. Federal funds might also affect the responsiveness of tax bases to tax rates within each state depending on how funding programs are set up. In addition, we are measuring the aggregate level of revenue capacity and expenditure need faced by all governments within a state. Depending on individual structures found in specific states, the allocation of funds to states versus the local governments within the states might vary for specific transfer programs and spending areas.

Little correlation exists between the aggregate amount of federal aid received by states and their fiscal capacity—that is, federal money is not primarily distributed to offset differences in the ability to raise revenues or provide services. While some federal grants are based on fiscally equalizing factors (for example, education funds related to the number of children in poverty), other programs require matching funds for states to be eligible for federal grants. Moreover, current federal revenues could close about 90 percent of the gaps

between revenue capacity and expenditure need if closing these representative gaps were

the main goal of federal intergovernmental aid.

Notes

[1] General revenue includes both own-source revenue (e.g., taxes) and intergovernmental revenue from the federal government. It does not include liquor store, utility, or insurance trust revenue.

[2] The District of Columbia has been excluded from this study. D.C.'s characteristics resemble those of a municipality rather than a state; therefore, its results would not be comparable to those of other states. All "national" averages in this study are averages of the 50 states and exclude D.C. as well as other U.S. nonstate entities.

[3] Alaska's high expenditures may reflect higher-than-average costs of providing, need for, or demand for public services; a significant amount of expenditures, however, is cash rebates to Alaskan residents. In FY 2002, over $1 billion (an average of $1695 a resident) was rebated through the Alaska Permanent Fund Dividend program (funded through oil windfalls). See http://www.pfd.state.ak.us/index.aspx for more information.

[4] For a history of Canada's equalization programs, including a discussion of capacity measures used in equalization formulas see appendix 2 of *Achieving a National Purpose: Putting Equalization Back on Track, the May 2006 report of an Expert Panel on Equalization and Territorial Financing.*

[5] The definition given in the 1962 ACIR report excludes the "relative to cost of service provision" part of the definition. The report defined fiscal capacity as "a quantitative measure intended to reflect the resources which a taxing jurisdiction can tax to raise revenue for public purposes."

[6] Box 4 expands on other metrics used to measure relative fiscal capacity across states or other regional governments.

[7] In comparison to the previous Tannenwald reports, "fiscal capacity" in this report refers to Tannenwald's "fiscal comfort," "tax/revenue capacity" to Tannenwald's "fiscal capacity," and "expenditure need" to Tannenwald's "fiscal need." "Tax/revenue effort" remains the same, and "expenditure effort" is a new term.

[8] See http://www.taxpolicycenter.org and http://www.bos.frb.org/economic/neppc.

[9] General charges include charges and fees on air transportation, commerce, education, hospitals, highways accounted in these categories.

[10] Other taxes include other selective sales, amusement licenses, alcohol licenses, public utility licenses, occupational business licenses, other licenses, documentary and stock transfer fees, and taxes and fees not classified elsewhere. Other nontax revenues include revenues from property sales (housing/community development, and other), interest revenue, fines and forfeits, rents and royalties, private donations and other miscellaneous general revenue not recorded elsewhere.

[11] For example, the personal income tax base includes the federal adjustment amounts and residency adjustments because these adjustments exist as plausible sources of revenue for many states. Conversely, the calculations exclude from the tax base personal exemptions and exemptions for dependents because states are highly unlikely to remove dependent exemptions in the short run.

[12] Overall states' rankings on the index of revenue capacity also correlate strongly with per capita revenue capacity for the three major state and local taxes. Per capita revenue capacity for general sales and gross receipts can explain 68 percent of the variations in state rankings, personal income tax capacity can explain 84 percent of the variation, and the property tax capacity can explain 81 percent.

[13] Sometimes, census categories do not correspond with categories identified by state and local governments. For example, some states include hospital spending in welfare benefits while the census defines hospital spending as a health case expenditure. In this study, we use the definitions outlined in the Government Finance and Employment Classification Manual as our basis. See http://www.census.gov/govs/www/class.html.

[14] The top five jurisdictions with the highest per capita expenditure need (Arkansas, Mississippi, Louisiana, New Mexico, and Alabama) all have education and welfare accounting for 55 percent or more of their total expenditure needs. The national average for these three items is 49 percent of total expenditure need.

[15] It is possible that some non-policy factors not accounted for by the RES model—for example, weather-related transportation costs—or differences in public preferences over service quality or levels could account for the divergence between the actual expenditures and the expenditure needs. Additionally, it is important

to note that having *high relative expenditure effort* need not imply wasteful spending (nor should under-spending be interpreted as under-provision of services).

[16] Tannenwald first developed this measure of fiscal comfort—tax capacity to expenditure need—in 1997. When Rafuse (1990b) introduced the representative expenditure approach, he used the term *indices of fiscal capacity* to refer to tax/revenue capacity and expenditure need and looked at the difference between these measures to calculate a hypothetical fiscal gap.

[17] Geographical categories are based on census divisions. Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont make up New England; New Jersey, New York , and Pennsylvania make up the Middle Atlantic States; and both these divisions are in the Northeast region. Indiana, Illinois, Michigan, Ohio, and Wisconsin are the states in the East North Central Division. The West North Central Division includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. These two divisions make up the Midwest region**.** The South includes the South Atlantic (Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia), East South Central (Alabama, Kentucky, Mississippi, and Tennessee) and West South Central (Arkansas, Louisiana, Oklahoma, and Texas). Finally, the West is made up of the Mountain Division (Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, and Wyoming) and the Pacific (Alaska, California, Hawaii, Oregon, and Washington).

[18] Between 1998 and 2003, Texas's crude oil production dropped by more than 120,000 barrels a year—to less than 35,000 barrels a month (Energy Information Association, "The Petroleum Navigator," http://tonto.eia.doe.gov/dnav/pet/hist/mcrfptx1m.htm).

[19] See UNESCO Institute of Statistics, Education Database, Table 19, "Finance Indicators by ISCED Level," http://stats.uis.unesco.org/TableViewer/tableView.aspx?ReportId=219.

[20] The authors thank Nick Johnson at the Center for Budget and Policy Priorities for this recommendation.

[21] The correlation between the actual expenditure and expenditure need is -0.14, while the correlation coefficient for the expenditure need and effort indices is 0.38.

[22] This discussion does not include the District of Columbia as a state. General revenues and expenditures exclude utility, liquor store, and insurance trust revenues and expenditures. Total revenues for all state and local governments in the United States were $1.8 trillion, while total expenditures amounted to $2.05 trillion.

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Tables and figures

Note: Unless otherwise specified, United States totals for all tables, figures, and appendix tables do not include the District of Columbia.

Table 1. Representative revenue system, 2002

| Revenue source | State and local revenues | | Bases and rates | |
	Amount ($ billions)	Percent of total	Standard base (billions)	Representative rate
General sales and gross receipts	222.43	16.61	3,412.63	6.52 cents per dollar
Selective sales	89.77	6.70		
Motor fuel	33.01	2.47	166.62	19.81 cents per gallon
Public utilities	20.10	1.50	603.38	3.33 cents per dollar
Insurance	11.16	0.83	926.76	1.2 cents per dollar
Tobacco	9.08	0.68	20.41	44.5 cents per package
Alcoholic beverages	12.04	0.90		
Distilled spirits	4.80	0.36	0.14	$33.47 per gallon
Beer	5.87	0.44	0.29	$20.15 per gallon
Wine	1.37	0.10	0.06	$22.27 per gallon
Amusements	4.08	0.30	125.62	3.25 cents per dollar
Pari-mutuels	0.31	0.02	18.11	1.7 cents per dollar
License taxes	25.36	1.89		
Motor vehicles	16.92	1.26	229.84	$73.64 per license
Vehicle operators	1.42	0.11	194.53	$7.29 per license
Corporate licenses	5.84	0.44	5.65	$1,035 per license
Fishing and hunting licenses	1.18	0.09	43.30	$27.30 per license
Personal income tax	201.91	15.08	6,013.23	3.36 cents per dollar
Corporate income tax	27.94	2.09	573.87	4.87 cents per dollar
Property tax	278.32	20.79	20,951.29	1.33 cents per dollar
Death and gift tax	7.38	0.55	26.40	27.97 cents per dollar
Severance taxes	4.23	0.32	131.29	3.22 cents per dollar
Other taxes	51.84	3.87	8,847.08	0.59 cents per dollar
User charges and nontax revenues	429.75	32.10		
Lotteries	15.77	1.18	39.26	40.15 cents per dollar
General user charges	264.22	19.73	8,847.08	2.99 cents per dollar
Other nontax revenues	149.76	11.18	8,847.08	1.69 cents per dollar
RRS total	**1,338.95**	**100%**		

[a] The tax base value is expressed in the applicable units. For ad valorem taxes, this value is dollars; for excise taxes issued per unit sold the base is measured in kind.

Table 2. Revenue capacity and effort, index and rankings, 2002

State	Revenue capacity ($)	Revenue capacity index	Rank	Revenue collection ($)	Revenue effort index	Rank
United States	4,659	100	.	4,659	100	.
Connecticut	6,272	135	1	5,446	87	46
Massachusetts	5,994	129	2	5,179	86	47
Delaware	5,678	122	3	5,982	105	12
New Jersey	5,651	121	4	5,554	98	29
Alaska	5,496	118	5	8,537	155	1
New Hampshire	5,482	118	5	4,142	76	50
Wyoming	5,370	115	7	6,160	115	3
Colorado	5,282	113	8	4,891	93	40
New York	5,240	112	9	6,376	122	2
Nevada	5,217	112	9	4,619	89	43
California	5,059	109	11	5,174	102	20
Minnesota	5,057	109	11	5,446	108	8
Maryland	5,007	107	13	4,908	98	29
Washington	4,871	105	14	4,919	101	22
Hawaii	4,848	104	15	4,802	99	27
Illinois	4,843	104	15	4,540	94	37
Virginia	4,750	102	17	4,556	96	33
Florida	4,730	102	17	4,398	93	40
Rhode Island	4,701	101	19	4,627	98	29
Vermont	4,662	100	20	4,528	97	32
Oregon	4,629	99	21	4,401	95	35
Michigan	4,527	97	22	4,570	101	22
Wisconsin	4,482	96	23	4,837	108	8
Nebraska	4,430	95	24	4,586	104	14
Pennsylvania	4,418	95	24	4,606	104	14
North Dakota	4,402	94	26	4,541	103	18
Ohio	4,380	94	26	4,584	105	12
Iowa	4,368	94	26	4,556	104	14
South Dakota	4,349	93	29	3,689	85	48
Georgia	4,346	93	29	4,126	95	35
Missouri	4,346	93	29	3,849	89	43
Maine	4,342	93	29	4,844	112	6
Indiana	4,308	92	33	4,272	99	27
North Carolina	4,282	92	33	4,111	96	33
Texas	4,271	92	33	4,017	94	37
Kansas	4,224	91	36	4,289	102	20
Kentucky	4,219	91	36	3,898	92	42
Montana	4,208	90	38	3,954	94	37
Arizona	4,147	89	39	3,682	89	43
Tennessee	4,139	89	39	3,451	83	49
Utah	3,985	86	41	4,318	108	8
New Mexico	3,946	85	42	4,212	107	11
Idaho	3,915	84	43	3,959	101	22
South Carolina	3,861	83	44	3,908	101	22
Louisiana	3,846	83	44	4,398	114	4
Oklahoma	3,835	82	46	3,977	104	14
Alabama	3,820	82	46	3,931	103	18
Arkansas	3,557	76	48	3,580	101	22
West Virginia	3,552	76	48	4,015	113	5
Mississippi	3,352	72	50	3,768	112	6

Table 3. Expenditure need and effort, index and rankings

State	Expenditure need ($)	Expenditure need index	Rank	Actual expenditures ($)	Expenditure effort index	Rank
United States	6,007	100	.	6,007	100	.
Mississippi	6,800	113	1	5,365	79	47
Louisiana	6,631	110	2	5,359	81	45
Arkansas	6,539	109	3	4,827	74	50
Alabama	6,492	108	4	5,491	85	44
New Mexico	6,460	108	4	6,164	95	28
Texas	6,456	107	6	5,127	79	47
Georgia	6,297	105	7	5,416	86	40
South Carolina	6,291	105	7	5,801	92	32
Tennessee	6,271	104	9	4,998	80	46
Michigan	6,255	104	9	6,075	97	25
North Dakota	6,248	104	9	6,132	98	24
West Virginia	6,227	104	9	5,469	88	37
California	6,211	103	13	6,732	108	16
Utah	6,181	103	13	5,544	90	34
Kentucky	6,141	102	15	5,268	86	40
Arizona	6,128	102	15	4,745	77	49
Illinois	6,126	102	15	5,866	96	26
North Carolina	6,113	102	15	5,359	88	37
Oklahoma	6,059	101	19	5,205	86	40
New York	6,052	101	19	8,414	139	2
Alaska	5,995	100	21	13,175	220	1
Indiana	5,908	98	22	5,320	90	34
Wyoming	5,894	98	22	7,719	131	3
Idaho	5,880	98	22	5,065	86	40
Kansas	5,846	97	25	5,482	94	29
Missouri	5,816	97	25	5,114	88	37
Ohio	5,814	97	25	5,876	101	21
Montana	5,798	97	25	5,546	96	26
New Jersey	5,797	97	25	6,341	109	15
Washington	5,791	96	30	6,370	110	13
Connecticut	5,772	96	30	6,996	121	6
Virginia	5,764	96	30	5,399	94	29
South Dakota	5,745	96	30	5,108	89	36
Massachusetts	5,709	95	34	6,600	116	8
Maryland	5,688	95	34	5,871	103	20
Florida	5,666	94	36	5,219	92	32
Nebraska	5,619	94	36	5,645	100	22
Colorado	5,610	93	38	6,054	108	16
Pennsylvania	5,609	93	38	5,947	106	19
Oregon	5,605	93	38	6,525	116	8
Rhode Island	5,603	93	38	6,321	113	10
Maine	5,593	93	38	6,124	110	13
Wisconsin	5,566	93	38	6,250	112	11
Delaware	5,557	93	38	6,643	120	7
Minnesota	5,553	92	45	6,952	125	5
Vermont	5,493	91	46	6,172	112	11
Iowa	5,491	91	46	5,856	107	18
Nevada	5,489	91	46	5,427	99	23
New Hampshire	5,282	88	49	4,973	94	29
Hawaii	5,216	87	50	6,715	129	4

Table 4. Fiscal capacity index and rankings, FY 2002

State	Fiscal capacity index	Rank
United States	100	.
Connecticut	141	1
Massachusetts	136	2
New Hampshire	134	3
Delaware	131	4
New Jersey	125	5
Nevada	123	6
Colorado	122	7
Hawaii	120	8
Alaska	118	9
Minnesota	118	9
Wyoming	117	11
Maryland	113	12
New York	111	13
Vermont	110	14
Florida	109	15
Rhode Island	109	15
Washington	109	15
California	106	18
Oregon	106	18
Virginia	106	18
Iowa	103	21
Wisconsin	103	21
Illinois	102	23
Pennsylvania	102	23
Nebraska	101	25
Maine	100	26
Ohio	97	27
South Dakota	97	27
Missouri	96	29
Indiana	94	30
Kansas	94	30
Michigan	93	32
Montana	93	32
North Carolina	90	34
North Dakota	90	34
Georgia	89	36
Kentucky	89	36
Arizona	87	38
Idaho	86	39
Tennessee	86	39
Texas	86	39
Utah	83	42
Oklahoma	81	43
New Mexico	79	44
South Carolina	79	44
Alabama	76	46
Louisiana	75	47
West Virginia	73	48
Arkansas	70	49
Mississippi	64	50

Table 5. Per capita fiscal gap at capacity, actual fiscal gap, federal transfers, and debt issue, FY 2002 (dollars)

State	Fiscal gap at capacity	Actual fiscal gap	Federal government transfers	Actual gap, after transfers	Gap at capacity, after transfers
United States	1,348	1,348	1,245	103	103
Connecticut	(500)	1,550	1,168	382	(1,668)
Massachusetts	(285)	1,422	963	459	(1,248)
New Hampshire	(200)	831	1,016	(185)	(1,216)
Delaware	(121)	661	1,191	(530)	(1,312)
New Jersey	147	787	1,043	(257)	(897)
Nevada	272	807	753	55	(481)
Colorado	328	1,163	949	214	(621)
Hawaii	369	1,912	1,254	659	(885)
Minnesota	496	1,505	1,212	294	(715)
Alaska	499	4,638	2,792	1,846	(2,293)
Wyoming	524	1,560	2,378	(819)	(1,854)
Maryland	681	962	1,089	(127)	(408)
New York	812	2,038	1,889	148	(1,077)
Vermont	831	1,644	1,763	(120)	(932)
Rhode Island	902	1,694	1,652	42	(750)
Washington	920	1,450	1,161	290	(241)
Florida	936	821	897	(75)	40
Oregon	975	2,124	1,827	297	(852)
Virginia	1,014	843	857	(15)	156
Wisconsin	1,084	1,413	1,187	226	(102)
Iowa	1,123	1,300	1,236	64	(112)
California	1,152	1,558	1,379	179	(227)
Nebraska	1,189	1,059	1,143	(84)	46
Pennsylvania	1,191	1,341	1,300	41	(109)
Maine	1,251	1,280	1,465	(184)	(213)
Illinois	1,283	1,326	1,010	316	272
South Dakota	1,396	1,420	1,513	(93)	(117)
Ohio	1,434	1,292	1,215	77	219
Missouri	1,470	1,265	1,290	(25)	179
Montana	1,590	1,593	1,746	(154)	(156)
Indiana	1,600	1,048	1,020	28	580
Kansas	1,622	1,193	1,142	51	480
Michigan	1,728	1,505	1,250	255	478
North Carolina	1,831	1,247	1,232	15	599
North Dakota	1,846	1,591	1,824	(233)	22
Kentucky	1,922	1,370	1,324	47	599
Georgia	1,950	1,290	1,096	194	855
Idaho	1,965	1,106	1,054	53	912
Arizona	1,981	1,063	1,051	11	930
Tennessee	2,132	1,548	1,313	235	819
Texas	2,185	1,109	1,055	54	1,130
Utah	2,195	1,226	1,126	100	1,069
Oklahoma	2,224	1,228	1,265	(37)	959
South Carolina	2,429	1,894	1,299	595	1,131
New Mexico	2,514	1,952	1,684	269	830
Alabama	2,672	1,560	1,398	163	1,275
West Virginia	2,675	1,454	1,662	(209)	1,012
Louisiana	2,786	961	1,448	(487)	1,337
Arkansas	2,982	1,246	1,346	(100)	1,635
Mississippi	3,448	1,597	1,613	(16)	1,835
Unweighted average	**1,349**	**1,409**	**1,331**	**78**	**18**

Figure 1. Geographical distribution of revenue capacity index scores by quintiles, FY 2002
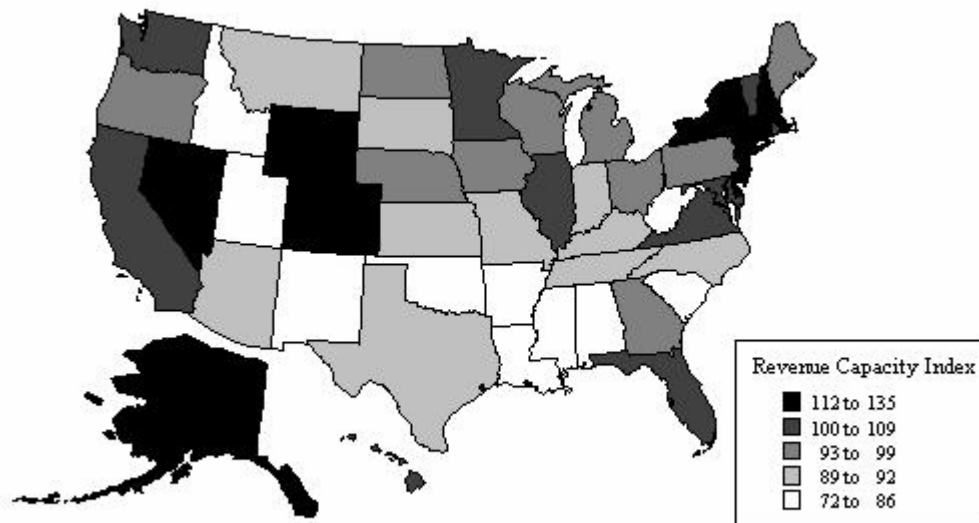
Figure 2. Geographical distribution of revenue effort index scores by quintiles, FY 2002
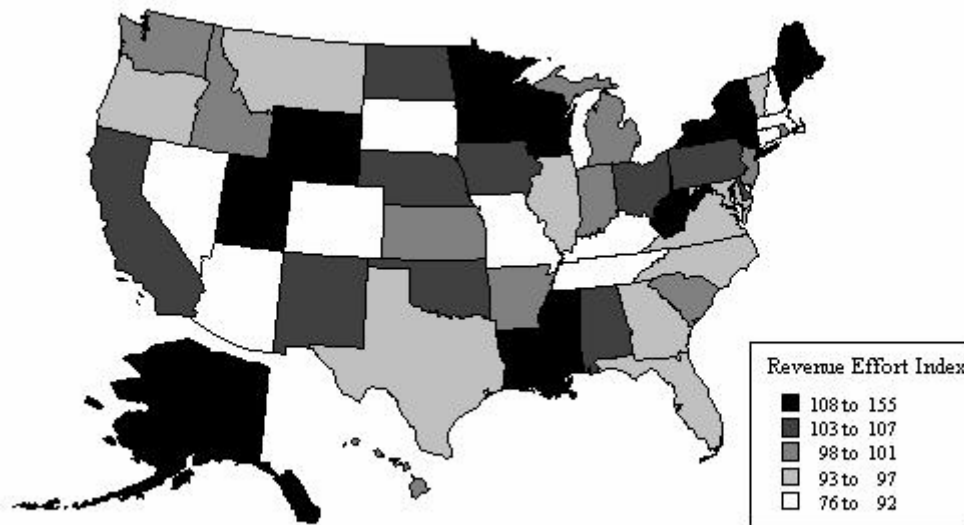
Figure 3. Geographical distribution of expenditure need index scores by quintiles, FY 2002
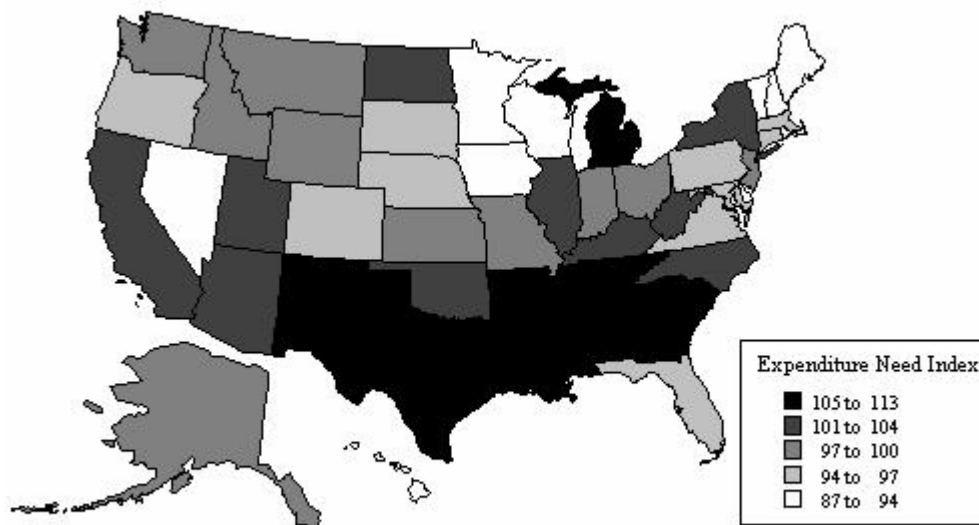
Figure 4. Geographical distribution of expenditure effort index scores by quintiles, FY 2002
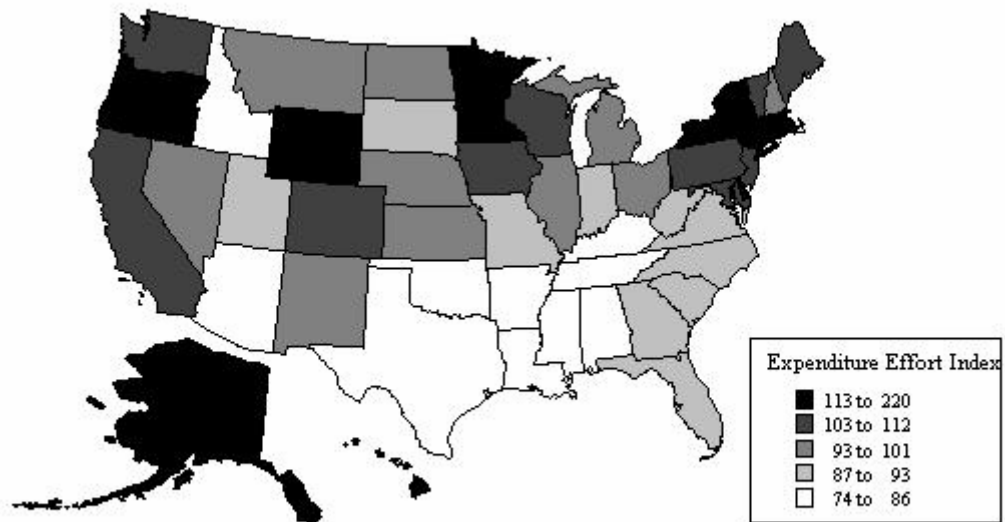
Figure 5. Relationship between expenditure effort and revenue capacity, FY 2002
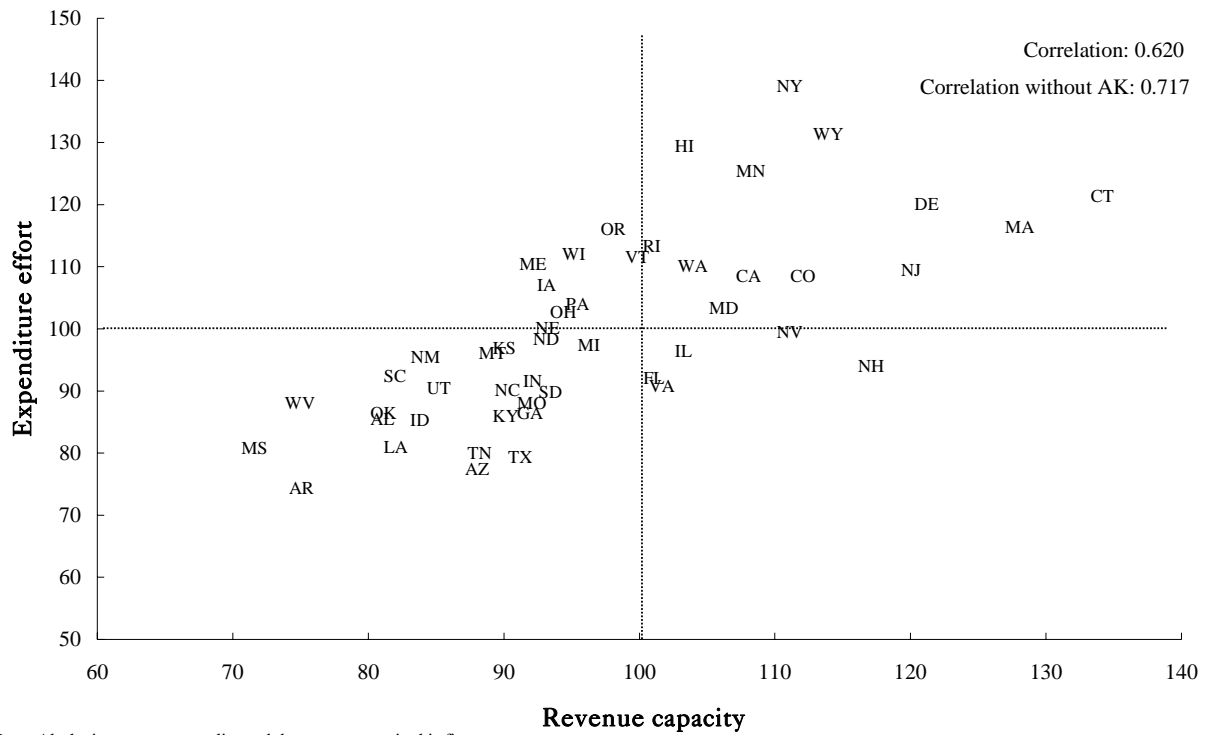
Note: Alaska is an extreme outlier and does not appear in this figure.

Figure 6. Geographical distribution of fiscal capacity index scores by quintiles, FY 2002
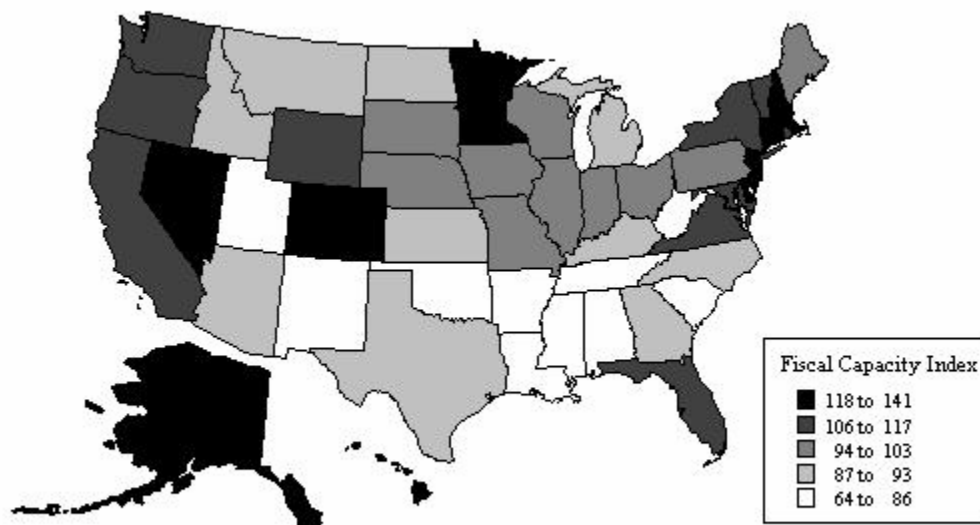
Figure 7. Relationship between expenditure need and revenue capacity, FY 2002
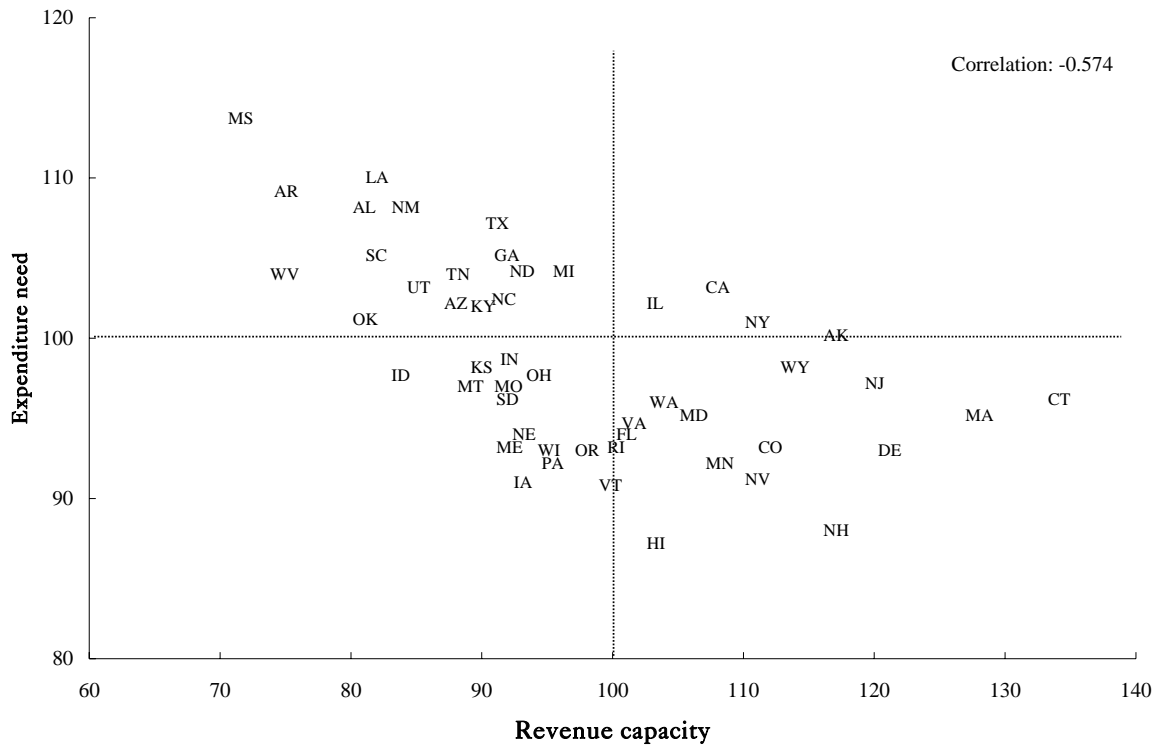
Figure 8. Relationship between revenue effort and fiscal capacity, FY 2002
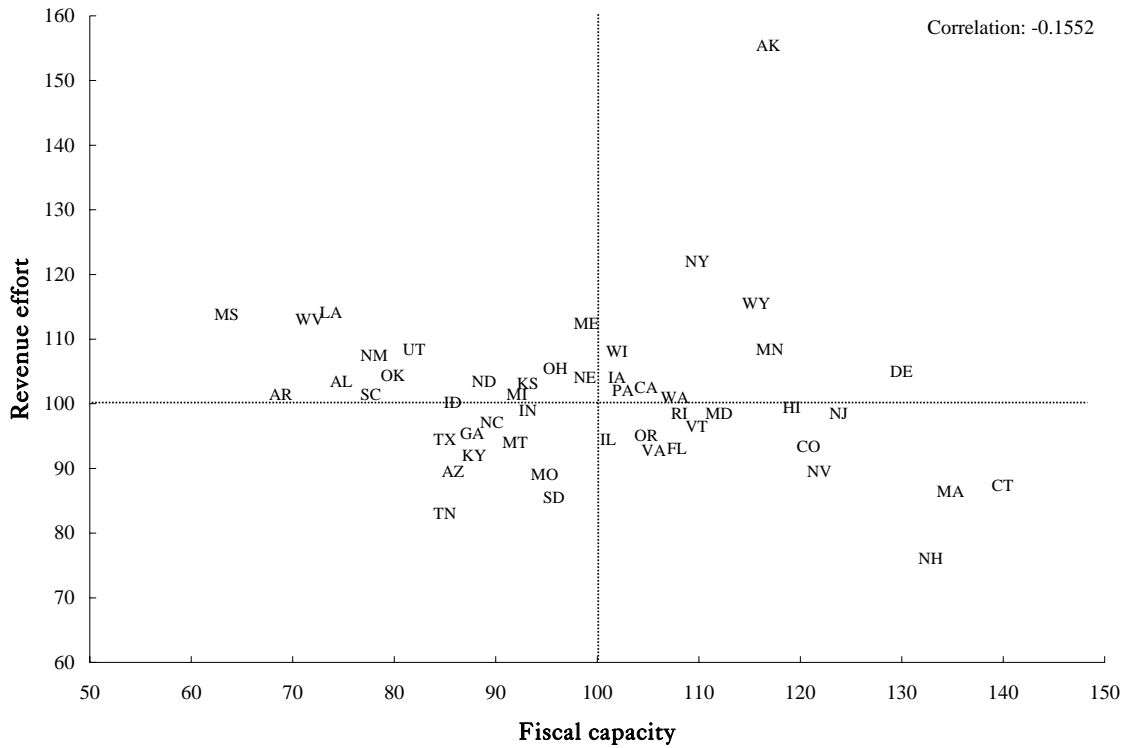
Figure 9. Relationship between federal transfers and fiscal gap at capacity, FY 2002
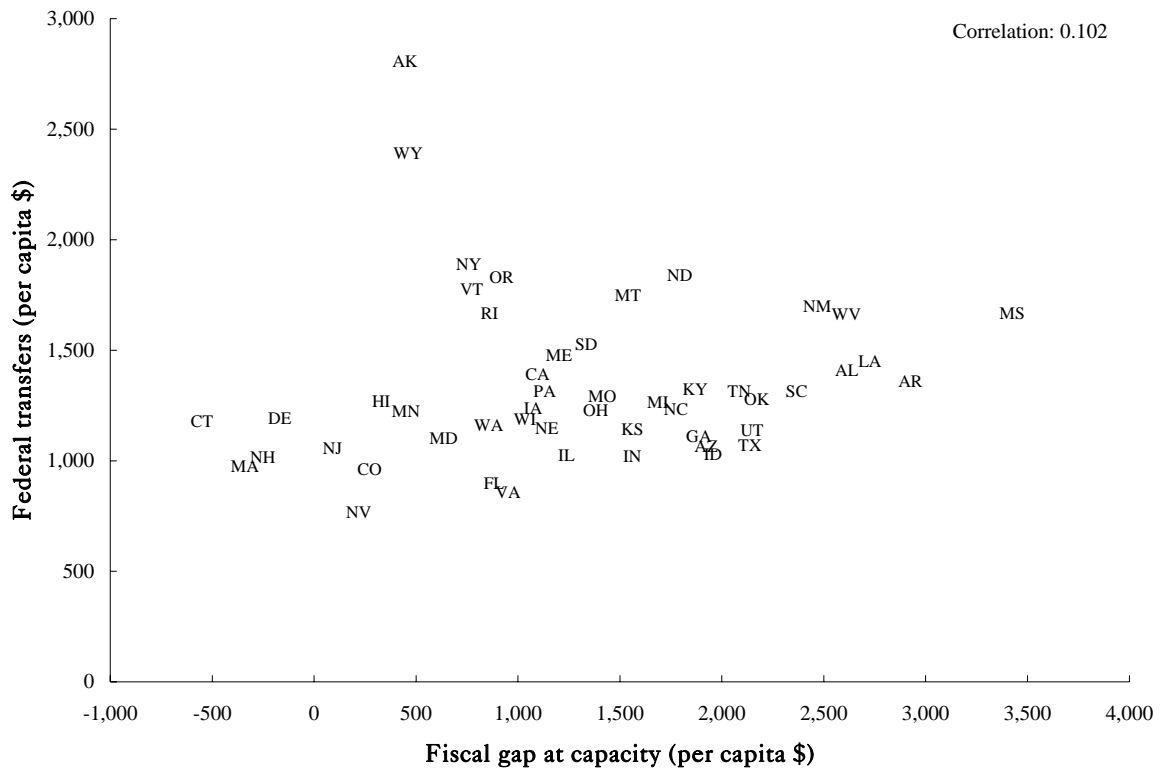
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Appendix A: Glossary of terms

Expenditure effort is the ratio of a state's actual per capita expenditures to the state's expenditure need.

Expenditure need measures how much a state must spend on a per capita basis to provide basic services typically offered by state and local governments. The expenditure need for each expenditure item is calculated using a *workload factor,* which measures the relative need of a state, based on characteristics not directly influenced by policies, such as socioeconomic and demographic characteristics. The expenditure need also reflects the variations in the costs of inputs across different jurisdictions. Ranking of states in terms of their per capita expenditure needs indexed to the national average per capita expenditures yields the *index of expenditure need*.

Fiscal capacity is a state's revenue capacity relative to its expenditure need. It is calculated as the ratio of revenue capacity to the expenditure need, both measured on a per capita basis. Multiplying this ratio by 100 and ranking states by their score gives us the *index of fiscal capacity*.

Fiscal gap is the difference between how much a state spends and how much it raises. The *fiscal gap at capacity* is the hypothetical difference between how much a state would spend and how much it would raise assuming representative revenue and expenditure policies.

Representative rate is the average tax/user charge rate that prevails in the nation; it is calculated by dividing the national total of states' revenues by the total revenue base for a given revenue item.

Representative revenue system (RRS) is the collection of the representative tax rates, user charges, and other revenues for each revenue item.

Representative tax system (RTS) is the collection of the representative tax rates for each tax item.

Revenue capacity adds user charges/fees and other nontax revenues (for example, lotteries, interest income, and proceeds from land sales) to the tax capacity analysis. It is the total amount of revenues a state and its localities would have raised if it were to apply a uniform set of taxes and user charges representative of the actual policies prevailing across the nation. The index of revenue capacity ranks states in terms of their per capita revenue capacities relative to the national average.

Revenue effort is the ratio of actual revenues collected by the state to the state's revenue capacity. Ranking each state's revenue effort relative to the national average creates the index of revenue effort.

Standard revenue base is the nationwide value (or volume) of all economic stocks or flows that the state governments could tax; it is a comprehensive base devoid of exclusions, deductions, and other tax preferences and tax relief items.

Tax capacity is the total amount of tax revenues a state (and its localities) would have raised if it were to apply a uniform set of taxes "representative" of the actual policies prevailing across the nation. The index of tax capacity ranks states in terms of their per capita tax capacities relative to the national average.

Appendix B: Data sources and methodology
for representative revenue system (RRS) – 2002

This section lays out the details of the representative revenue system (RRS), including data sources used and adjustments made to obtain the 2002 results. For the methodologies used in studies from prior years, please consult *State Tax Capacity and Effort* by the Advisory Commission on Intergovernmental Relations (1993) and the *Interstate Fiscal Disparity* studies by Tannenwald (1998, 1999, 2002) and Tannenwald and Turner (2004).

The RRS estimates a state's revenue capacity (or revenue raising potential) by levying a standard rate on a uniform revenue base for each revenue item (taxes, user charges and fees, and other nontax revenues) in every state. For every revenue item, the standard rate represents the national average tax or user charge rate, and it is calculated by dividing the national total of tax or user charge collections for that item by the total national revenue base. (When this exercise is done only for taxes, excluding user charges, fees, and other nontax sources of revenue, one obtains the representative tax system, or RTS.)

For example, in fiscal year 2002, total state and local revenues raised from personal income tax were roughly $202 billion, while the standard base—defined as personal income modified for exemptions and federal and residency adjustments—was roughly $6 trillion (see below for details). Therefore, the standard personal income tax rate—that is, the total tax receipts divided by the total base—for FY 2002 is 3.36 cents per dollar. Applying this rate to a given state's base—for example, Virginia's $128 billion personal income tax base—and dividing by the state's population yields the per capita tax capacity (about $590 for Virginia). The total per capita revenue capacity in each state is the sum of the per capita revenue capacity estimates for all taxes and user charges ($4,750 for Virginia). Calculating the relative position of each state compared with the national average revenue capacity—for 2002, the national average per capita revenue capacity was $4,660—and indexing to 100 creates an *index of revenue capacity*. Virginia scored 102 on this index, ranking number 17 among all states.

Comparing actual revenue collections to the potential revenue capacity, again indexed to the national average, creates the *index of revenue effort*. This measure reveals how intensively each state taxes—both within each tax or user charge category, and in total revenues relative to the national average. Following our example, Virginia collected $4,556 per capita in tax and nontax revenues in FY 2002, and scored 96 on the index of tax effort, ranking 33rd among all other states.

The remainder of this appendix highlights the data sources used in calculating the standard bases and rates. Each category includes a brief description of the methodology used in constructing the tax base and notes any changes and adjustments made to calculate tax bases and rates.

State and local tax collections (including taxes and charges)

Source
U.S. Bureau of the Census. Annual Survey of Government Finances, State and Local
Finances by Type of Government.
http://ftp2.census.gov/govs/estimate/02statetypecd.zip.

2002 population data (based on mid-year population estimates)

Source
U.S. Census Bureau. *Current Population Survey*. Annual Estimates of the Population for the
United States and States, and for Puerto Rico: April 1, 2000 to July 1, 2004 (NST-
EST2004-01). http://www.census.gov/popest/states/NST-ann-est.html.

Individual tax bases

General sales and gross receipts

Sources
U.S. Census Bureau. *2002 Economic Census*. Geographic Area Series Files 72:
Accommodation and Food Services; 51: Information; 81: Other Services; 71: Arts,
Entertainment, and Recreation; and 44–45: Retail Trade.
http://www.census.gov/econ/census02/guide/geosumm.htm.

Bureau of Economic Analysis. *Regional Economic Accounts, State GSP Data for 2001 and 2002*.
http://www.bea.gov/bea/regional/gsp/.

Methodology
The tax base is the sum of retail trade, accommodations, food service, personal services,
motion pictures, and arts and entertainment, minus gas, alcohol, gambling, and nonstore
retail sales.

In calculating the retail trade base, missing/unreported data points are estimated using other
proxies in the following way:
- **Motion picture:** The revenue figures for motion pictures are limited to motion pictures
  only (and not sound). Individual values for South Dakota and the District of Columbia
  are missing but are included in the national total. We distributed the undisclosed
  portion of the national total between South Dakota and District of Columbia using a
  combined weight of state populations and number of establishments.
- **Gambling:** Fourteen states (Alabama, Connecticut, Delaware, Georgia, Indiana, Maine,
  Massachusetts, Montana, New Hampshire, New Jersey, New Mexico, Rhode Island,
  Vermont, and Virginia) and the District of Columbia did not disclose gambling revenues
  but reported the number of establishments. The revenues for these states were reported

in the U.S. totals. These 14 states and D.C. were not typical gambling states: while average number of establishments per state is 43 for the entire population of states, the states with the missing data had on average 10 establishments each. We estimated the revenues for each state by distributing the residual revenues (United States total minus all reported) by the number of establishments in each state.

- **Beer, wine, and liquor sales:** Four states (Arizona, Idaho, New Hampshire, and Utah) and the District of Columbia, all with relatively low numbers of establishments – on average 119 in each as opposed to the national average of 567—did not disclose revenue data (although they were included in the U.S. total). The residual revenues were distributed among these five areas in proportion to their reported number of establishments.

Following the studies for fiscal years 1997 and 1999, we take into account the growing importance of nonstore retail sales in certain states. Establishments that sell over the Internet or via mail-order catalogues generate most nonstore retail sales. If a firm engaging in such forms of commerce has property and employees, or both, located in a state, the state may tax items sold by the firm to resident households or resident businesses. Items sold to out-of-state purchasers, however, cannot be taxed, because of a lack of nexus. In estimates before 1996, all nonstore sales of goods were included in the retail sales. However, as the role of electronic commerce grows, including all nonstore sales would grossly overestimate the tax base. The Census Bureau estimates that e-commerce accounted for approximately 17 percent of all nonstore sales in FY 2002. One must account for out-of-state sales in this mix. Currently, no state-level data exist for the flow of electronic commerce. Therefore, the following decision rules were used to account for nonstore sales:

1. For each state, we computed a variable equal to the nationwide nonstore sales times the state's share of nationwide personal income.
2. We compared the actual nonstore sales in each state to this variable and applied the following rules:
   - If actual nonstore sales were less than or equal to the variable$_s$ then we assumed that all the nonstore sales were made to the residents of the state. Therefore, we kept the entire nonstore sales in the retail tax base.
   - If the actual nonstore sales were greater than the variable$_s$ then we assumed that the difference between the actual and estimated sales were made to nonresidents, and therefore should be excluded from the tax base.

Selective sales: motor fuels

Source

U.S. Department of Transportation, Federal Highway Administration. *Highway Statistics 2002*. Table MF2, "Motor Fuel Taxed 2002." *Highway Statistics 2001*. Table MF2, "Motor Fuel Taxed 2001."

Methodology

The tax base is the volume of taxed gallons of fuel for each state.

Selective sales: public utilities

Sources

American Gas Association. *Gas Facts 2002*. Table 7-2, "Gas Utility Industry Sales Revenues, by State 1996–2002," page 56.

Edison Electric Institute. *Statistical Yearbook of the Electric Utility Industry 2002* and *2003*. Table 8.6 (formerly table 59), "Total Electric Utility Industry, by State and Class of Service."

Federal Communications Commission. Industry Analysis and Competition Division. *Statistical Trends in Telephony, 2004 and 2003*. Table 15.6, "Telephone Industry Revenues by State." http://www.fcc.gov/wcb/iatd/trends.html.

Methodology

The tax base is the sum of revenues of all gas, electric, and telephone companies. For the telephone industry, which includes terrestrial and wireless telephony, the state revenues are the sum of interstate and intrastate revenues.

Selective sales: insurance

Sources

American Council on Life Insurance. *Life Insurance Fact Book*, *2003*. Table 9.6, "Premium Receipts of U.S. Life Insurance Companies by State." http://www.acli.com/NR/rdonlyres/ewe26md5wkec2waglxxvcdeb75rf4wgmox3lzfr2y fr3p6s3quwv6h5xxwh5c5bcs2usg64gm6s66o/In%2bthe%2bStates.pdf.

Insurance Information Institute. *The Fact Book 2002* and *2003*. "Direct Premiums Written by State." p. 25.

Methodology

The tax base is the direct written premiums (or premium receipts) for life, property, and casualty insurance.

Selective sales: tobacco products

Source

Orzechowski & Walker, Virginia, USA. *The Tax Burden on Tobacco*, *Historical Compilation*, *2004, Volume 39*. State Tax-Paid Cigarette Sales.

Methodology

The tax base is the number of packages of cigarettes sold.

Selective sales: alcoholic beverages

Sources

National Institute on Alcohol Abuse and Alcoholism. *Apparent per capita alcohol consumption:
National, state, and regional trends, 1977–2002*. Surveillance Report #66. Table 2a,
"Apparent alcohol consumption for states, census regions, and the United States,
2001," and table 2b, "Apparent alcohol consumption for states, census regions, and
the United States, 2002."
http://www.niaaa.nih.gov/publications/surveillance66/tab2b_02.htm,
http://www.niaaa.nih.gov/publications/surveillance66/tab2a_02.htm.

Distilled Spirits Council of the United States (DISCUS). *Public Revenues from Alcohol
Beverages, 2003*. Table 14.

Methodology

The tax base is the combined consumption in gallons of beer, wine, and distilled spirits.
Because census tax data have only aggregate alcohol beverage tax collection values by state,
a breakdown of tax collections by beverage type was obtained from DISCUS and used in
the calculation of the representative rates.

Selective sales: amusements

Source

U.S. Census Bureau. *Economic Census 2002*. Retail Sales and Selected Service Receipts by
State.

Methodology

The tax base is arts, entertainment, and recreation, plus motion pictures and exhibition,
minus promoters of performing arts, sports, and similar events; minus agents/managers for
artists, athletes, and other public figures; minus independent artists, writers, and
performers; minus coin-operated amusement devices (except slots). Estimates for state-
level values for motion pictures, promoters, agents/managers, independent artists, and coin-
operated amusement devices when data are missing are obtained by using the number of
establishments as a proxy. Individual adjustment rates appear in the appendix tables.

Selective sales: pari-mutuels

Source

Christiansen Capital Advisors LLC. *Gross Annual Wagers of the United States*, 2001 and 2002.

Methodology

The tax base is the sum of dog racing, horseracing, and jai alai revenues bet within each
state.

Licenses: motor vehicle registrations

Source

U.S. Department of Transportation, Federal Highway Administration. *Highway Statistics 2002* and *2001*. Table MV-1, "State Motor-Vehicle Registrations."

Methodology

The tax base is the sum of private and commercial motor vehicle registrations in the state.

Licenses: corporations

Source

Internal Revenue Service. *Internal Revenue Service Data Book*. Table 3, "Number of Returns Filed, by type of Return and State, Fiscal Year 2002." http://www.irs.gov/pub/irs-soi/02db03nr.xls.

Methodology

The tax base is the total number of corporation licenses granted in the state. Separate numbers did not exist for Maryland and District of Columbia, so the combined figure is allotted by each state's personal income ratio.

Licenses: motor vehicle operators

Source

U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2002 and 2001*. Table DL-22, "Total Licensed Drivers, by Age." http://www.fhwa.dot.gov/policy/ohim/hs02/xls/dl22.xls and http://www.fhwa.dot.gov/ohim/hs01/xls/dl22.xls.

Methodology

The tax base is the number of licenses in each state.

Licenses: fishing and hunting

Source

U.S. Department of the Interior. Fish and Wildlife Services, Division of Federal Aid, State and Fish Game Departments. *Fishing License Data History*. Table "Number of Paid Fishing License Holders, License Sales, and Cost to Anglers—Fiscal Year 2002." http://federalasst.fws.gov/license holders/Fishing License Data History.pdf.

Methodology

The tax base is the total number of licenses granted by each state.

Individual income tax

Sources

Bureau of Economic Analysis. *Residency Adjustments by State*, 2001-2002, http://www.bea.gov/bea/ARTICLES/2004/05May/0504RevSPI.pdf.

Government of the District of Columbia. *Tax Rates and Tax Burdens in the District of Columbia- A Nationwide Comparison 2002.* Table 15, "Individual Income Tax. Exemption Amounts for Singles Returns, Joint Returns, Head of Household Returns and Dependents."

Internal Revenue Service. *Statistics of Income*, "Individual Income Tax Information by State, 2000, 2001 and 2002. Adjusted Gross Income, Adjustments and Adjustments for Residency by State and Number of Dependents, Single Returns, Joint Returns and Head of Household Returns

Methodology
The tax base is the adjusted gross income (AGI) modified for federal adjustment amounts and residency adjustments, net of exemptions. The formula of this modification is as follows:

Individual Income Tax Base =
AGI + Adjustments - Adjustments for Residence - Exemptions

We obtained the exemption values using the following steps:
- For each state, we found the exemption level for each type of exemption.
- For each type of exemption, we calculated the weighted average of the exemption level for all states. We used per capita income tax receipts as the weight.
- We used this weighted average to calculate amount of exemptions by state. To do so, for each exemption type, we multiplied the weighted average exemption by the number of exemptions in that state. Summing this through all exemption types, we obtained the total exemption value for that state.
- In calculating the exemptions and AGI for FY 2002, we use data from calendar years 2001 and 2002. However, state-level filing-type data for the calendar year 2002 did not report exemptions for dependents and the return numbers for single and head of household filers (it only had data on joint returns). Additionally, compared with the data reported for previous years, the 2002 data presented fewer income brackets. As a result, the following adjustments were made:
  - **Adjustments for income brackets:** The 2002 data on AGI did not report the following categories: Breakeven and loss, AGI between $0 and $10,000, and AGI between $10,000 and $20,000. Additionally, AGI for income levels above $200,000 were pooled together. In calculating the total income for FY 2002, the AGI amounts for these categories were calculated using the ratios observed in calendar year 2001. For example, to calculate the AGI for income levels 10,000 to 20,000, we used the following steps:
    - Use the 2001 data to calculate the ratio of AGI for the $10,000–$20,000 bracket to the total AGI reported for the $0–$20,000 bracket.
    - Multiply this ratio to the AGI 2002 to estimate 2002 total AGI reported for this category.

- Repeat these steps for all income levels not reported in 2002 (but reported in 2001). The FY 2002 data use the estimates calculated for 2002 as well as AGI numbers for 2001.
- o **Adjustments for different filing categories, number of exemptions:** Because many filing categories were missing from the 2002 data, the number of returns and exemptions filed in 2001 was used as a proxy for the entire fiscal year. However, 2001 data did not contain the number of dependency exemptions. To calculate this number, we used the 2000 returns as proxy:
    - We calculated the ratio of dependency exemptions to the total number of returns filed, for each income bracket for calendar year 2000. Then, we used this ratio to calculate the total number of dependent claims for each income bracket for 2001.
    - To estimate the FY2002 data, we first calculated the proportion of different filing types and exemption numbers to the number of total returns for 2001.
    - Using these proportions, we estimated the number of returns by type for 2002. We used the 2001 and 2002 data to calculate FY2002 data.
  - o **Adjustments for "total adjustments to AGI":** Because the 2002 data didn't include the total adjustments to AGI, we used the ratio of adjustments to total AGI for each state for 2001, and then multiplied the state-level AGI data for FY 2002 with this ratio to calculate the adjustments for FY 2002.

Corporate income tax

Sources

U.S. Bureau of the Census. *2002 Economic Census*. Payroll and Receipts Data by Sector by State.

Bureau of Economic Analysis. *National Income and Product Accounts*. Table 6.17c, "Corporate Profits by Industry Group."

Methodology

The tax base is the amount of corporate profits for each state. Because state-level corporate data were not available, the national data were allocated to the states. This involved a multi-step process:

1. We collected the 2002 annual receipts and payroll data by state by industry from the Economic Census and 2002 national corporate profits by industry from the BEA.
2. We calculated the percent of each industry located in each state:
   - o For each industry, we calculated state-level receipts ratios (state receipts divided by the total receipts in that industry).
   - o For each industry, we calculated state-level payroll ratios (state payroll divided by the total payroll in that industry).
3. We used the ratios calculated in step 2 to allocate national corporate profits in a given industry to each state. In estimating the profits, the receipts were weighted once and

payroll was weighted twice. Thus, the weight equals $\left(\dfrac{2 \cdot Payroll_{s,i}}{\sum_s Payroll_i} + \dfrac{Receipts_{s,i}}{\sum_s Receipts_i} \right) \Big/ 3$,

where s and i index states and industries, respectively.

4. We summed the corporate profits across different industries in a given state to obtain the total corporate profits in that state.

   Aggregate profit numbers for construction, mining, and manufacturing are not available for the United States, so we used the sum of those numbers as one industry. Disaggregated receipt numbers for finance, information, and utilities are not available at the state level, so we excluded the receipt ratios for those industries in the final apportionment of corporate profits. Finally, when receipt numbers were not available for a given industry at a state level, we used number of establishments to apportion the national receipts net of available numbers. The agriculture/forestry data for both payroll and receipts are missing in the census, so we used the average payroll ratio of all industries for these industries. After these four adjustments, $5 million in profits remained unaccounted for. This residual was distributed across states using the average payroll ratio.

Property tax

Sources

American Gas Association. *Gas Facts: 2002 Data*. Table 5-2, "Gas Utility Industry Miles of Pipeline and Main, by State, 1990–2003."

Department of Energy. Energy Information Administration. *Annual Electric Generator Report (EIA-860)*

Federal Communications Commission. Common Carrier Bureau. *2001-2002 Statistics of Communication Common Carriers*, Table 2.4, "Access Lines." http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCCState_Link/SOCC/01socc.pdf.

Freddie Mac Index, http://www.freddiemac.com/finance/cmhpi/release.htm.

Internal Revenue Service. 2002. "Depreciable assets, Depletable assets and Land, Returns of active corporations," http://www.irs.gov/pub/irs-soi/02co06nr.xls.

Internal Revenue Service. "Depletable, Depreciable, and Land Assets in the Utility Sector 2002." Returns of Active Corporations. http://www.irs.gov/pub/irs-soi/02co06nr.xls.

Internal Revenue Service. "Depreciable Assets in the Utility Sector, by Industry 2002." Returns of Active Corporations by Minor Industry. http://www.irs.gov/pub/irs-soi/02co01nr.xls.

U.S. Bureau of the Census, *Characteristics of New Housing*: 2001, 2002. "Average and Median Square Feet of Floor Area, by Category of House, Location and Type of Financing"

and "Sales Price of Houses, by Location and Type of Financing, and Price per Square Foot of Floor Area, by Location."

U.S. Census Bureau. *Statistical Abstract of the United States* (various years). "Construction Contracts—Value by State."

U.S. Census Bureau. *Decennial Census.* Summary Tape File 3 on CD-ROM. Table H-86, "Aggregate Value by Mortgage Status."

U.S. Census Bureau. *Decennial Census.* Summary Tape File 3 on CD-ROM. Table H-64, "Aggregate Gross Rent."

U.S. Census Bureau. *2002 Economic Census.* Sector Receipt Totals by State. http://www.census.gov/econ/census02/guide/geosumm.htm.

Bureau of Economic Analysis. *Regional Economic Accounts, 2002.* Regional Personal Income by Industry. http://www.bea.doc.gov/bea/regional/spi/.

U.S. Department of Agriculture. National Agricultural Statistics Service. "Farms and Land in Farms: by State and United States, 2000—2002," http://usda.mannlib.cornell.edu/reports/nassr/other/zfl-bb/fmno0203.txt.

U.S. Department of Agriculture. National Agricultural Statistics Service. "Farm Real Estate: Average Value per Acre, by Region and State." http://www.usda.gov/nass/pubs/stathigh/2003/tables/economics.htm

Methodology
The tax base is the total property value in the state. Total property value consists of farm property, residential property, corporate property, and utility property including all exemptions.

State agencies vary widely on the data they report on the total value of property in the state—some include the total value of all property, others of only taxable property, and some only the assessed value of taxable property. For calculating tax capacity, one needs the total potential property tax base, and not all states report this value. The methodology below outlines our alternative measure of taxable property base. The total property calculations matched the state's estimates in many cases.

The tax base is the sum of utility, corporate, residential, and farm property values.

Utility property: Property for the utility sector in each state is the composite of the property (depreciable and depletable assets less depreciation, and land) in the gas, electric, and telephone industries. Assets for each sector are allocated by relative network size (state's share of gas pipeline, electrical generating capacity, and access telephone lines, respectively). In calculating the total property value, each asset base is weighted by its share of depreciable assets that make up the total of the utility industry:

- The share of nationwide depreciable property allocated across the gas, electric, and telephone industries is obtained from the IRS's 2002 Returns of Active Corporations by Minor Industry.
- The nationwide industry shares are applied to the total amount of utility property (combination of depreciable and depletable assets less depreciation and depletion, and land) to obtain national property estimates for each sector.
- Total property value for each sector is allocated across states using the network size proxy.
- Summing the state-level property values across the three utility sectors yield the total utility property value estimate for that state.

Corporate property: Corporate property consists of depreciable assets, depletable assets (both minus accumulated depreciation), and land. For 19 broad industry sectors, the amount of corporate property nationwide is allocated across states by calculating each state's share of the nationwide sector total. Subject to some inconsistencies noted below, each state's share is estimated by calculating the share of each sector's total personal income earned in that state. All sectors for each state were then added together to obtain an estimate of total corporate property by state.
- Missing personal income estimates for the accommodation and food services, mining, other services, and transportation and warehousing sectors are substituted with each state's calculated share of industry receipts from the 2002 Economic Census.
- Missing personal income estimates for the information and utility sectors are found by allocating the remaining share of a sector's income by each state's share of nationwide personal income totals.
- Missing agriculture and forestry sector personal income estimates are substituted with share estimates from the 1999 study as receipt totals are unavailable and total state personal income share is not a good proxy for this sector.

Residential property: In theory, this class of property should include all residential property in the state—including exemptions. The estimate was obtained following the following steps:
- To account for inflation in the housing market, we calculated the growth in the Freddie Mac index for each state from 2000 to 2002 and from 2001 to 2002.
- We used the 2000 to 2002 growth rate to inflate 2000 Total Aggregate Owner-Occupied Housing Property Values and the 2000 Asset Value from Rental Property to 2002 levels.
- We calculated the 2000 Asset values by multiplying Aggregate Gross Rent by 12 (to annualize it), and then dividing Annualized Aggregate Gross Rent by 2 (to obtain Net Operating Income) and then dividing Net Operating Income by .09 (to obtain the Net Present Value with interest rate equal to 9 percent).
- In order to account for the new housing constructed in 2001, we summed the value of residential construction contracts for this year and inflated this figure by the Freddie Mac Index. We used this figure and 2002 residential construction values to calculate the residential contract values for FY 2002.

- The next step involved adjusting for land value. To do so, we calculated the ratio of the value of construction to total value of the property (construction plus land), and divided the value of construction for FY 2002 with this ratio.
  - First, we found the average value of property by multiplying average square feet of floor area by the average price per square foot, by region.
  - Then, we divided this product by the average sales price of one-family houses to arrive at the value of construction to total value.
- The last step involves adding together the housing stock from 2000 (both owner-occupied and rental) and the new construction for 2001 and FY 2002.

Farm property: Farm property is the estimated market value of land and buildings on farms for FY 2002. Total market value of this land is obtained by multiplying the total number of acres of farmland in each state by the average value per acre of farmland as of January 1, 2002. Data for average value per acre are missing for Alaska and Hawaii; the farm values for these states were increased by the 48-state growth rate in the market value of farm land and buildings between 1999 and 2002.

We compared the estimates for total property value (sum of utility, corporate, residential and farm property values) with the estimates of property values obtained from state agencies and chose the larger value.

Death and gift tax

Sources
Internal Revenue Service. *Internal Revenue Service Data Book 2002*. Publication 55B. Table 6, "Internal Revenue Gross Collections, by State, Fiscal Year 2002." http://www.irs.gov/taxstats/bustaxstats/article/0,,id=136474,00.html.

U.S. Census Bureau. "State and Local Government Tax Collections, 2002." http://www.census.gov/govs/www/statetax.html

Methodology
The tax base is the sum of all federal death and gift collections for each state. As the federal taxes are applied uniformly across all states, this provides a valid measure of the magnitude of each state's base. The data for Maryland and District of Columbia collections are separated using the allocation of personal income across the two geographies.

Severance taxes

Sources
Energy Information Administration. *Petroleum Supply Annual 2003*, Volume 1. Table C1, "Revised Crude Oil Production by PAD District and State." http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_supply_annual/psa_volume1/historical/2003/pdf/volume1_appendix_c.pdf.

Energy Information Administration. *Annual Coal Report 2002* and *2003*. Table 1, "Coal Production and Number of Mines by State and Mine Type, 2003, 2002," and from Table 28, "Average Open Market Sales Price of Coal by State and Mine Type, 2003, 2002." http://www.eia.doe.gov/cneaf/coal/page/acr/acr_sum.html.

Energy Information Administration. *Natural Gas Annual 2001* and *2002*. Table 6, "Wellhead Value and Marketed Production of Natural Gas by State, 1998–2002." http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/natural_gas_annual/historical/2002/pdf/table_006.pdf, http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/natural_gas_annual/historical/2001/pdf/table_006.pdf.

Energy Information Administration. *Minerals Yearbook 2001 and 2002*. Table 5, "Nonfuel Mineral Production in the United States, by State."

Energy Petroleum. *Marketing Monthly March 2003*. http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_supply_annual/psa_volume1/historical/2002/pdf/volume1_appendix_c.pdf .

Methodology
The tax base is the sum of the value of oil production, coal production, natural gas production, and nonfuel mineral production.
- The price data for crude oil are missing for a number of states. Alaska's price was determined by weighting the North Slope and South prices by production. For the remaining states (Arizona, Florida, Missouri, Nevada, Tennessee, and Virginia) the average price for the PAD (Petroleum Administration for Defense) district is used.
- Coal price data are also missing for Alaska, Arizona, Arkansas, Kansas, Louisiana, Maine, and Mississippi. To calculate this value, we used the average price for the fiscal year from the same census division.

All other taxes

Source
Bureau of Economic Analysis. *Regional Economic Accounts*. "State Personal Income annual estimates." http://www.bea.gov/bea/regional/spi/.

Methodology
The tax base is the personal income for each state. The tax revenue for all other taxes consists of the following categories of tax revenue from Census of Governments (see "State and Local Finance Data" above for source information): Other Selective Sales (T-29), Amusement Licenses (T-21), Alcohol Licenses (T-20), Public Utility Licenses (T-27), Occupational/Business Licenses (T-28), Other Licenses (T-19), Documentary and Stock Transfers (T-51), and Not Elsewhere Classified (T-99).

Bases for individual user charges/fees and other nontax revenues

<u>Lotteries</u>

Sources

U.S. Census Bureau. Census of Governments. "Income and Apportionment of State-Administered Lottery Funds: 2002." http://www.census.gov/govs/state/02lottery.html.

Bureau of Economic Analysis. Regional Economic Accounts. "Disposable Personal Income." http://www.bea.gov/bea/regional/spi/default.cfm?satable=summary.

U.S. Census Bureau. *2002 American Community Survey*. Table P007, "Households." http://factfinder.census.gov/servlet/DatasetMainPageServlet?_lang=en&_ts=170267274770&_ds_name=ACS_2002_EST_G00_&_program=ACS.

U.S. Census Bureau. *2002* and *2003 Current Population Survey*.

Methodology

The base is the gross revenue from the sale of lottery tickets. A representative base for each state is estimated through a log-form cross-sectional regression of state-level economic and demographic data on gross lottery sales. The regression is unweighted, so each state is equally influential in the regression. For each state's estimate, predicted values are used as the base.

The regression specifications are also applied to states without lotteries. A base is calculated for these states even though lottery revenues (hence the revenue effort) obviously equal zero. (There were 12 states without lotteries in FY 2002: Alabama, Alaska, Arkansas, Hawaii, Mississippi, Nevada, North Carolina, North Dakota, Oklahoma, Tennessee, Utah, and Wyoming.) In such states, the prize percentage is assumed to be the prevailing national average and the administrative costs are the assumed to be the prevailing regional averages. The resulting base for each state is an estimate of what a state would raise in revenue if it adopted a "nationally representative" lottery.

The decision to assign lottery revenue bases to states without lotteries was made after careful consideration. We might be assigning "capacity" to states that would never choose to exercise this capacity, because of local preferences (Utah, for example) or because they have chosen a different method of taxing a similar base (for example, Nevada's high amusement tax). But assigning these states a potential base helps maintain uniformity across states (and indeed, the same approach is used for other taxes). Some states choose not to use an income or sales tax, yet the economic activity underlying these potential revenues should be accounted for. Additionally, since FY1991 (the last time for which lottery revenue capacity of states was calculated), five states have implemented lotteries, suggesting that the decision to exploit an underlying lottery base is not that uncommon.

In FY 2002, 38 states had lotteries. Three of these states—Delaware, West Virginia, and South Dakota—had significantly different revenue and cost structures in their lottery programs because they collected a relatively larger share of revenues from video lottery terminals. As a result, these states' lottery data have been omitted from the regression and each state's representative base is estimated as if it did not have a lottery.

Variables and their sources are listed below.

Dependent variable
Gross lottery revenues per household – logged (Census of Governments and American Community Survey)

Independent variables
Disposable income per household – logged (Bureau of Economic Analysis)
Percent of population 18+ in a metro area (Current Population Survey)
Percent of population with at least some college, 18+ (Current Population Survey)
Percent of 18+ population that is 65+ (Current Population Survey)
Percent of lottery revenues used for prizes (Census of Governments)
Lottery administrative expenditures per household – logged (Census of Governments and American Community Survey)

Regression specifications

Gross lottery revenues per household – logged	Coef.	Std.Err.	t	P
Household disposable income - logged	2.42	0.67	3.59	0.001
Percent metro	0.01	0.00	2.73	0.011
Percent with some college or greater	-6.19	1.62	-3.83	0.001
Percent population age 65+	0.05	0.03	1.68	0.105
Percent prize money	0.07	0.01	5.89	0
Administrative costs per household - logged	0.43	0.10	4.22	0
Constant	-24.96	7.04	-3.55	0.001

R^2 0.8182
n   35

General charges

Sources

U.S. Census Bureau. Annual Survey of Government Finances, State and Local Finances by Type of Government. http://ftp2.census.gov/govs/estimate/02statetypecd.zip.

Bureau of Economic Analysis. *Regional Economic Accounts*. State Personal Income annual
estimates. http://www.bea.gov/bea/regional/spi/.

Methodology
The revenue base for each state is the personal income in each state. Revenues for General
User Charges consist of the following categories from Census of Governments: Air
Transportation (A01), Miscellaneous Commerce Activity (A03), Total Education Charges
(A09, A10, A12, A16, A18, A21), Hospital Charges (A36), Charges for highways and toll-
roads (A44, A45), Housing and Community Development (A50); Charges on Natural
Resources (A54, A56, A59), Parking (A60), Parks and Recreation (A61), Sewerage (A80),
Waste Management (A81), Water Transport (A87), and all other NEC (A99).

Other nontax revenues (miscellaneous general revenues)

Sources
U.S. Census. Bureau Annual Survey of Government Finances, State and Local Finances by
Type of Government. http://ftp2.census.gov/govs/estimate/02statetypecd.zip.

Bureau of Economic Analysis. *Regional Economic Accounts*. State Personal Income annual
estimates. http://www.bea.gov/bea/regional/spi/.

Methodology
The revenue base for each state is the personal income in each state. Revenues for
Miscellaneous General Revenues consist of the following categories from Census of
Governments: Property Sale from Housing/Community Development (U10), Other
Property Sale (U11), Interest Revenue (U20), Fines and Forfeits (U30), Rents (U40) and
Royalties (U41), Private Donations (U50), and Miscellaneous General Revenue NEC
(U99).

Appendix C: Data sources and methodology for representative expenditure system (RES), 2002

This appendix details the representative expenditure system, including all data sources, construction of workload measures, and adjustments and estimations used to obtain the fiscal year 2002 results. For earlier methodologies, see Robert Rafuse's *Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity*, Advisory Commission on Intergovernmental Relations, M-174, December 1990, and Tannenwald (2002) and Tannenwald and Turner (2004).

The RES system provides normalized expenditure estimates for a given unit of public services provided. This involves several steps:

First, one must identify and define categories of expenditures principally influenced by factors other than state populations. This study includes six such factors: elementary and secondary education, higher education, public welfare, health and hospitals, highways, and police and corrections. In 2002, these categories accounted for 71 percent of all direct general expenditures for state and local governments.

Next, one must define measurable "workload" factors—other than the price of inputs—that affect the cost of providing the service. For example, the workload measures for highway expenditures are the number of vehicle miles traveled (capturing maintenance costs due to traffic) and total lane miles (measuring maintenance costs due to time and exposure). With multiple workload measures, the composite workload measure is constructed with a weighted average. In this example, based on engineering estimates, vehicle miles traveled is weighted 4.71 times more than total lane miles.

For each expenditure item, we multiply the national expenditure level by the workload factor in each state to estimate what it would have cost the state to provide one workload-measure unit of services. However, the cost of providing the services associated with this expenditure item varies across states because of cross-state variations in labor and other input costs. We account for these differences across states by controlling for the input prices used in the provision of public services; the particulars of this methodology are outlined below in the input-cost section.

The total expenditure need in a state is the sum of expenditure needs across different expenditure items. Indexing the per capita expenditure need to the national average (set at 100) gives us an index of expenditure need—the primary index used in the RES system.

The remainder of this appendix details the data sources and workloads used in the RES 2002 results.

2002 state and local expenditure data

Source

U.S. Census. Annual Survey of State and Local Government Finances, 2001-02. April 2006.
    http://www.census.gov/govs/www/estimate02.html

Input-cost index data

Sources

U.S. Census Bureau. *Economic Census 2002.* Earnings by Occupation and Education.
    http://www.census.gov/hhes/income/earnings/earnings.html.

U.S. Census Bureau. *State and Local Government Employment and Payroll, 2002.* March 2002
    State and Local Government Payroll Data by Function.

Methodology

The input-cost adjustment normalizes for cost differentials across states. First, we tabulated
the earnings for males age 45–64 by state and by educational attainment. Next, we created a
state-by-state labor cost index by weighting each state's median earnings for each education
level by the national distribution of educational attainment.

For each expenditure item, we constructed an input-cost index for each state. We
annualized the March payroll and then divided this number by the total expenditures for
each item. This gave us the ratio of payroll costs in total expenditures for each expenditure
item. Following previous studies, we assumed that payroll expenditures constitute 75
percent of all compensation expenditures. Thus, we calculated the share of compensation in
total expenditure by dividing the payroll's share by 0.75. Finally, for each expenditure item,
we multiplied this compensation percentage by the labor cost index number for that state
and then added to the non-compensation percentage of costs multiplied by 100.

Consequently, for a given state

$$\text{Input Cost Index} = \text{comp\%} * \text{labindex} + ((1\text{-comp\%})*100)$$

where *comp%* is the compensation as percentage of total expenditure for a given
expenditure item, and *labindex* is the state's labor cost index.

Calculating representative expenditures

To calculate representative expenditures by function, we multiplied, for each expenditure
item, the state's workload measure by the total national expenditure for that items and the
state's input-cost index function. Dividing this number by the state population yields the
per capita adjusted expenditure need for each function. Then, we normalized the
expenditure need estimates so the expenditure need summed over all states equals the
actual national expenditures for each item.

Data for estimating representative expenditures

Public welfare

Sources
U.S. Census Bureau. *Current Population Survey*, Annual Estimates of the Population for the
United States and States, and for Puerto Rico: April 1, 2000 to July 1, 2004 (NST-
EST2004-01). http://www.census.gov/popest/states/NST-ann-est.html.

U.S. Census Bureau. *2002 American Community Survey*. Table P114, "Poverty Status in the
Past 12 Months by Sex by Age."
http://factfinder.census.gov/servlet/DatasetMainPageServlet?_lang=en&_ts=1702672
74770&_ds_name=ACS_2002_EST_G00_&_program=ACS.

U.S. Census Bureau. *Current Population Survey*. Annual Social and Economic Supplements,
Historical Poverty Table 19.
http://www.census.gov/hhes/www/poverty/histpov/hstpov19.html.

The Henry J. Kaiser Family Foundation. Statehealthfacts.org.

Methodology
The public welfare workload measure is a composite measure of both a state's share of total
population in poverty and its share of elderly population (age 75+) in poverty, where the
former is weighted by 75 percent and the later is weighted by 25 percent.

The weighting is drawn from the fact that in 2002, roughly two-thirds of all public welfare
spending nationwide was spent on medical vendor payments for Medicaid (a state-
administered program), of which roughly 40 percent was spent on the elderly. This is an
update of the old methodology, which took state's share of total population in poverty as the
workload measure.

Elementary and secondary education

Sources
U.S. Census Bureau. *State Population Estimates*. State Single Year of Age and Sex Population
Estimates: April 1, 2000 to July 1, 2004.
http://www.census.gov/popest/datasets.html#mrd.

U.S. Census Bureau. *Current Population Survey 2002 March Supplement, Poverty in the United
States*. Table 25, "Poverty Status by State and Ten Large Metropolitan Areas in
2001, People Under 18."
http://ferret.bls.census.gov/macro/032002/pov/new25_003.htm.

U.S. Census Bureau. *Current Population Survey 2003 March Supplement, Poverty in the United
States*. Table POV46, "Poverty Status by State, People under 18 Years of Age,
Weighted Person Count, 100 and 125 Percent of Poverty."
http://ferret.bls.census.gov/macro/032003/pov/new46_100125_03.htm.

U.S. Department of Education. National Center for Education Statistics. *Characteristics of Private Schools in the United States: Results From the 2001–2002 Private School Universe Survey*. Table 26, "Number of private schools, students, full-time-equivalent (FTE) teachers, and high school graduates, by state: United States, 2001–02." http://nces.ed.gov/pubs2005/2005305.pdf.

Methodology

The workload measure for elementary and secondary education allocates the total private school enrollment between primary and secondary schools using the overall ratios of elementary and secondary school cohorts. The number of potential public school students is calculated as the primary and secondary cohorts net of private enrollments.

Past editions of this study used Rafuse's original assumptions that the primary to secondary per pupil cost ratio is 0.60 and that the children in poverty cost 25 percent more to educate. The per pupil costs at the primary level have been increasing over the past decade—from 1999 to 2005, this ratio climbed from 0.79 to 0.86. (See UNESCO Institute of Statistics, Education Database, Table 19, "Finance Indicators by ISCED Level," http://stats.uis.unesco.org/TableViewer/tableView.aspx?ReportId=219.)

In this edition, we assume that the cost ratio is 0.85. Past studies that used Title I have typically found that the cost of educating the poor requires a 20 to 25 percent premium. However, given the costs of compensatory education, special education, and language education programs, supplemental services, plus all other costs related to operating a school in a poor area such as transportation, school lunch, theft, and vandalism, the premium is possibly much larger. In this study, we assume that educating a poor student is likely to cost 50 percent more (Rothstein 2001).

The education cost index for each state is calculated using the following formula:
$$(1 + .5p) (0.85e + s)$$
where p is the percentage of children under 18 in poverty, e is the number of elementary students, and s is the number of secondary students.

The workload measure is each state's share of the education cost index.

Higher education

Sources

U.S. Census Bureau. *State Population Estimates*. State Single Year of Age and Sex Population Estimates: April 1, 2000 to July 1, 2004. http://www.census.gov/popest/states/files/SC-EST2004-AGESEX_CIV.csv.

U.S. Department of Education. National Center for Education Statistics. *Digest of Education Statistics*. Table 176, "Total fall enrollment in degree-granting institutions, by attendance status, age, and sex: Selected years, 1970 to 2013." http://nces.ed.gov/programs/digest/d03/tables/dt176.asp.

Methodology
First, we calculated the national college enrollments for age groups 14–17, 18–24, 25–34, and 35+, assuming three part-time students equal one full-time–equivalent student. Then we weighed each state's population in each of these age groups by the national net enrollment ratio in that group to estimate the college population in each state.
The workload measure is each state's share of the estimated college population.

Health and hospitals

Sources
U.S. Census Bureau. *Current Population Survey*. Annual Estimates of the Population for the United States and States, and for Puerto Rico: April 1, 2000 to July 1, 2004 (NST-EST2004-01). http://www.census.gov/popest/states/NST-ann-est.html.

U.S. Census Bureau. *Current Population Survey, Annual Demographic Survey March Supplements for 2001, 2002 and 2003*. HINC-01: Selected Characteristics of Households by Total Money Income.

Social Security Administration. *Social Security Bulletin, Annual Statistical Supplement 2002*. Table 5.J1, "Estimated total benefits paid, by program and state or other area, 2001. http://www.ssa.gov/policy/docs/statcomps/supplement/2002/5j.pdf.

Methodology
To calculate each state's share of low-income families, we calculated the ratio of national household income averaged among the bottom fourth and fifth quintiles (averaged for 2000–02) to state household income averaged among the bottom fourth and fifth quintiles. Then we multiplied this ratio by the state's share of population to obtain a final measure of poverty. This methodology differs from the FY 1999 study, which analyzed family income quintiles, while this study looks at household income quintiles.
The workload measure is the equally weighted average of state's share of total population, state's share of work-disabled population, and state's share of low-income families.

Highways

Sources
Federal Highway Administration. *Highways Statistics 2001*, and *2002*. For both years, Table VM-2M, "Annual Vehicle-Miles of Travel."
http://www.fhwa.dot.gov/policy/ohpi/qftravel.htm.

Federal Highway Administration. *Highways Statistics 2001* and *2002*. For both years, Table HM-60, "Rural and urban lane-miles, estimated."

Methodology
The workload measure is calculated as 0.825 times each state's share of vehicle-miles plus 0.175 times state's share of lane-mileage. These weightings are based on the GAO Report cited in Rafuse (1990a).

Police and corrections

Sources

U.S. Census Bureau. *State Population Estimates*. State Single Year of Age and Sex Population Estimates: April 1, 2000 to July 1, 2004.

U.S. Census Bureau and Federal Bureau of Investigation. *Crime in the United States 2001* and *2002*. For both years, Table 5, "Index of Crime, by state." http://www.fbi.gov/ucr/01cius.htm and http://www.fbi.gov/ucr/02cius.htm

Methodology

The workload measure is the equally weighted average of each state's share of total population, state's share of population age 18–24, and state's share of murders.

Other categories of expenditures: Environment and housing, interest on general debt, governmental administration, and all other direct general expenditures

Source

U.S. Census Bureau. *Current Population Survey*, Annual Estimates of the Population for the United States and States, and for Puerto Rico: April 1, 2000 to July 1, 2004 (NST-EST2004-01). http://www.census.gov/popest/states/NST-ann-est.html

Methodology

The workload measure is each state's share of the total 2002 U.S. population

Appendix D: Data tables

Table D1. State and local government finances by level of government, FY2002

Description	State and local government amount[a]	State government amount	Local government amount[a]
Population (April 1, 2000, in thousands)	281,422	(X)	(X)
Revenue[a]	1,806,591,592	1,097,045,283	1,083,074,484
General revenue[a]	1,684,879,080	1,062,627,836	995,779,419
Intergovernmental revenue[a]	360,546,218	335,433,606	398,640,787
From federal government	360,546,218	317,582,530	42,963,688
From state government	X	X	355,677,099
From local government[a]	X	17,851,076	X
General revenue from own sources	1,324,332,862	727,194,230	597,138,632
Taxes	905,100,802	535,191,161	369,909,641
Property	279,191,478	9,702,385	269,489,093
Sales and gross receipts	324,122,506	262,360,613	61,761,893
General sales	222,986,687	179,665,257	43,321,430
Selective sales	101,135,819	82,695,356	18,440,463
Motor fuel	33,044,249	31,968,036	1,076,213
Alcoholic beverage	4,600,156	4,249,208	350,948
Tobacco products	9,092,865	8,902,018	190,847
Public utilities	20,293,723	10,287,949	10,005,774
Other selective sales	34,104,826	27,288,145	6,816,681
Individual income	202,832,254	185,646,573	17,185,681
Corporate income	28,151,862	25,123,137	3,028,725
License taxes	36,716,191	35,391,102	1,325,089
Other taxes	34,086,511	16,967,351	17,119,160
Charges and miscellaneous general revenue	419,232,060	192,003,069	227,228,991
Current charges	253,189,078	100,213,156	152,975,922
Education	72,290,510	55,056,005	17,234,505
Hospitals	65,404,087	24,352,132	41,051,955
Highways	8,196,456	5,088,978	3,107,478
Air transportation (airports)	12,330,615	791,614	11,539,001
Parking facilities	1,402,243	-	1,402,243
Sea and inland port facilities	2,685,135	735,873	1,949,262
Natural resources	3,001,013	2,115,202	885,811
Parks and recreation	7,021,178	1,199,448	5,821,730
Housing and community development	4,295,737	529,252	3,766,485
Sewerage	27,112,453	33,643	27,078,810
Solid waste management	11,192,000	369,854	10,822,146
Other charges	38,257,651	9,941,155	28,316,496
Miscellaneous general revenue	166,042,982	91,789,913	74,253,069
Other than general revenue	121,712,512	34,417,447	87,295,065
Utility revenue	102,352,097	11,935,400	90,416,697
Water supply	33,236,410	159,309	33,077,101
Electric power	54,403,809	10,102,135	44,301,674
Gas supply	5,761,745	11,743	5,750,002
Transit	8,950,133	1,662,213	7,287,920
Liquor store revenue	5,065,107	4,287,846	777,261
Insurance trust revenue	14,295,308	18,194,201	-3,898,893
Expenditure[a]	2,051,537,122	1,282,852,187	1,140,396,140
Intergovernmental expenditure[a]	4,387,483	364,847,087	11,251,601
Direct expenditure	2,047,149,639	918,005,100	1,129,144,539
Current operations	1,499,243,299	622,489,323	876,753,976
Capital outlay	257,071,380	89,767,123	167,304,257

Description	State and local government amount[a]	State government amount	Local government amount[a]
Assistance and subsidies	33,109,840	24,141,473	8,968,367
Interest on debt	86,932,956	33,200,760	53,732,196
Insurance benefits and repayments	170,792,164	148,406,421	22,385,743
Exhibit: Salaries and wages	609,562,926	167,841,309	441,721,617
Direct expenditure by function	2,047,149,639	918,005,100	1,129,144,539
Direct general expenditure	1,732,478,495	745,821,802	986,656,693
Education services			
Education	594,694,004	162,010,291	432,683,713
Libraries	8,260,071	419,049	7,841,022
Social services and income maintenance			
Public welfare	281,176,211	241,481,381	39,694,830
Hospitals	87,609,368	37,072,499	50,536,869
Health	59,455,759	30,160,528	29,295,231
Social insurance administration	5,082,130	5,072,948	9,182
Veterans' services	361,190	361,190	-
Transportation			
Highways	115,294,680	71,055,977	44,238,703
Air transportation (airports)	16,209,242	1,170,391	15,038,851
Parking facilities	1,122,971	-	1,122,971
Sea and inland port facilities	3,571,052	1,014,880	2,556,172
Transit subsidies	625,569	304,225	321,344
Public safety			
Police protection	64,458,395	9,407,598	55,050,797
Fire protection	25,997,621	-	25,997,621
Correction	54,615,236	36,428,737	18,186,499
Protective inspection and regulation	11,631,226	7,873,548	3,757,678
Environment and housing:			
Natural resources	22,000,189	16,588,299	5,411,890
Parks and recreation	30,101,204	4,952,534	25,148,670
Housing and community development	31,622,757	3,783,028	27,839,729
Sewerage	31,257,197	1,049,804	30,207,393
Solid waste management	19,051,359	2,736,496	16,314,863
Governmental administration:			
Financial administration	32,659,750	18,939,795	13,719,955
Judicial and legal	31,210,148	14,415,793	16,794,355
General public buildings	10,899,918	2,632,930	8,266,988
Other governmental administration	18,009,148	3,921,391	14,087,757
Interest on general debt	75,287,295	31,407,303	43,879,992
General expenditure, n.e.c.			
Miscellaneous commercial activities	419,421	360,176	59,245
Other and unallocable	99,795,384	41,201,011	58,594,373
Utility expenditure	139,696,158	20,278,852	119,417,306
Water supply	40,555,413	386,106	40,169,307
Electric power	55,952,337	11,688,979	44,263,358
Gas supply	5,720,135	8,929	5,711,206
Transit	37,468,273	8,194,838	29,273,435
Liquor store expenditure	4,182,822	3,498,025	684,797
Insurance trust expenditure	170,792,164	148,406,421	22,385,743
Unemployment compensation	42,195,724	42,046,248	149,476
Employee retirement	114,931,372	92,695,105	22,236,267
Workers' compensation	10,156,751	10,156,751	-
Other insurance trust	3,508,317	3,508,317	-

Description	State and local government amount[a]	State government amount	Local government amount[a]
Debt outstanding	1,681,377,464	636,795,733	1,044,581,731
Cash and security holdings	3,650,740,524	2,555,425,220	1,095,315,304

Note: Includes District of Columbia.

[a] Duplicative intergovernmental transactions are excluded.

Table D2. Index of revenue and tax capacity, various years

State	2002 Rev. Capacity		2002 Tax Capacity		1999 Tax Capacity		1997 Tax Capacity		1996 Tax Capacity		1994 Tax Capacity		1991 Tax Capacity		1987 Tax Capacity	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Alabama	82	46	82	46	82	47	81	48	83	48	83	48	81	48	75	49
Alaska	118	5	125	4	109	12	133	1	127	3	135	2	178	1	169	1
Arizona	89	39	91	37	98	23	100	21	94	35	93	34	94	26	100	19
Arkansas	76	48	76	48	81	48	80	49	81	49	81	49	78	49	75	49
California	109	11	110	11	111	9	116	8	103	17	105	14	115	10	117	9
Colorado	113	8	115	9	105	16	115	9	114	11	110	10	109	12	111	11
Connecticut	135	1	130	1	127	2	129	3	129	2	132	3	130	4	139	2
D.C.	NA	NA	NA	NA	127	2	123	6	126	5	125	5	123	7	122	7
Delaware	122	3	129	2	123	4	120	7	121	6	119	8	125	6	124	5
Florida	102	17	104	14	103	19	98	22	100	20	100	20	103	16	105	15
Georgia	93	29	93	32	98	23	98	22	96	30	95	29	91	32	94	26
Hawaii	104	15	108	13	116	5	130	2	120	7	125	5	146	2	113	10
Idaho	84	43	86	43	84	45	87	44	90	41	90	40	82	45	77	47
Illinois	104	15	103	16	104	17	103	15	110	12	108	11	102	19	97	22
Indiana	92	33	93	32	94	31	95	27	97	25	96	23	90	36	87	37
Iowa	94	26	96	23	96	27	94	29	97	25	93	34	93	28	84	41
Kansas	91	36	90	38	92	35	94	29	96	30	96	23	93	28	93	27
Kentucky	91	36	94	30	85	44	86	45	84	46	85	45	83	43	79	44
Louisiana	83	44	83	44	83	46	89	43	88	43	92	36	89	38	86	40
Maine	93	29	95	28	92	35	95	27	89	42	88	43	95	24	97	22
Maryland	107	13	102	18	104	17	106	13	108	14	107	12	106	14	109	13
Massachusetts	129	2	126	3	114	6	112	11	116	9	114	9	117	9	127	4
Michigan	97	22	97	22	99	21	96	25	98	24	101	19	94	26	95	25
Minnesota	109	11	110	11	108	13	103	15	107	15	104	15	101	20	104	16
Mississippi	72	50	72	50	74	50	71	51	72	51	70	51	68	51	65	51
Missouri	93	29	94	30	93	34	93	33	97	25	95	29	91	32	91	31
Montana	90	38	96	23	94	31	92	36	99	21	96	23	91	32	87	37
Nebraska	95	24	96	23	98	23	98	22	99	21	96	23	95	24	91	31
Nevada	112	9	117	8	129	1	129	3	141	1	142	1	128	5	110	12
New Hampshire	118	5	122	6	114	6	110	12	118	8	107	12	110	11	123	6
New Jersey	121	4	118	7	114	6	114	10	116	9	124	7	119	8	122	7
New Mexico	85	42	88	41	87	42	90	41	85	44	90	40	87	40	87	37
New York	112	9	111	10	106	15	106	13	109	13	103	17	103	16	108	14
North Carolina	92	33	93	32	97	26	93	33	92	36	92	36	93	28	90	34
North Dakota	94	26	99	21	96	27	96	25	97	25	94	33	91	32	90	34
Ohio	94	26	93	32	94	31	94	29	96	30	97	22	93	28	91	31
Oklahoma	82	46	82	46	79	49	83	47	84	46	86	44	87	40	93	27
Oregon	99	21	100	19	108	13	103	15	103	17	99	21	100	21	92	29
Pennsylvania	95	24	92	36	92	35	92	36	95	33	96	23	96	23	92	29
Rhode Island	101	19	95	28	91	39	92	36	91	39	91	38	89	38	96	24
South Carolina	83	44	83	44	86	43	84	46	85	44	85	45	83	43	80	43
South Dakota	93	29	96	23	96	27	94	29	95	33	91	38	86	42	78	46
Tennessee	89	39	89	40	92	35	90	41	92	36	90	40	82	45	84	41
Texas	92	33	90	38	90	40	91	40	91	39	95	29	97	22	99	20
Utah	86	41	88	41	90	40	92	36	92	36	85	45	82	45	79	44
Vermont	100	20	103	16	99	21	101	18	99	21	95	29	105	15	103	17
Virginia	102	17	100	19	102	20	101	18	101	19	104	15	103	16	102	18
Washington	105	14	104	14	110	11	101	18	104	16	102	18	108	13	99	20
West Virginia	76	48	74	49	72	51	77	50	78	50	81	49	77	50	77	47
Wisconsin	96	23	96	23	96	27	93	33	97	25	96	23	90	36	88	36
Wyoming	115	7	123	5	111	9	125	5	127	3	128	4	134	3	137	3

Table D3. Index of revenue and tax effort, various years

State	2002 Revenue Effort Index	2002 Revenue Effort Rank	2002 Tax Effort Index	2002 Tax Effort Rank	1999 Tax Effort Index	1999 Tax Effort Rank	1997 Tax Effort Index	1997 Tax Effort Rank	1996 Tax Effort Index	1996 Tax Effort Rank	1994 Tax Effort Index	1994 Tax Effort Rank
Alabama	103	18	85	41	82	45	82	46	83	44	80	49
Alaska	155	1	82	43	87	41	110	9	116	5	100	18
Arizona	89	43	93	33	87	41	84	44	93	29	97	21
Arkansas	101	22	99	19	91	37	95	30	92	30	86	40
California	102	20	99	19	96	24	88	41	101	16	96	23
Colorado	93	40	86	40	95	26	83	45	82	45	85	42
Connecticut	87	46	107	9	119	3	121	4	115	6	109	6
D.C.	NA	NA	NA	NA	151	1	153	1	141	1	148	2
Delaware	105	12	82	43	89	40	90	36	90	33	87	39
Florida	93	40	83	42	86	43	91	33	90	33	91	33
Georgia	95	35	96	25	94	29	91	33	95	27	93	30
Hawaii	99	27	101	16	95	26	93	31	104	10	107	10
Idaho	101	22	91	35	97	22	97	24	92	30	91	33
Illinois	94	37	102	14	101	16	102	15	97	26	96	23
Indiana	99	27	94	29	93	32	99	23	88	40	92	32
Iowa	104	14	95	28	93	32	100	20	98	25	103	14
Kansas	102	20	103	13	99	17	103	14	99	21	101	16
Kentucky	92	42	89	38	97	22	97	24	99	21	95	26
Louisiana	114	4	104	12	98	20	89	39	86	42	78	50
Maine	112	6	118	2	118	5	112	7	113	8	111	5
Maryland	98	29	114	4	103	12	100	20	100	17	103	14
Massachusetts	86	47	94	29	106	11	109	10	104	10	104	13
Michigan	101	22	100	18	103	12	106	11	100	17	105	11
Minnesota	108	8	107	9	113	7	122	3	113	8	109	6
Mississippi	112	6	101	16	99	17	102	15	102	13	98	20
Missouri	89	43	90	37	92	34	92	32	87	41	82	46
Montana	94	37	78	49	82	45	87	42	79	46	85	42
Nebraska	104	14	102	14	94	29	101	19	99	21	100	18
Nevada	89	43	82	43	76	50	73	51	73	51	69	51
New Hampshire	76	50	75	50	76	50	79	48	74	49	85	42
New Jersey	98	29	110	7	113	7	112	7	114	7	108	9
New Mexico	107	11	96	25	99	17	97	24	102	13	97	21
New York	122	2	134	1	143	2	144	2	141	1	155	1
North Carolina	96	33	93	33	92	34	96	28	94	28	96	23
North Dakota	103	18	88	39	92	34	96	28	89	36	89	35
Ohio	105	12	109	8	103	12	102	15	100	17	95	26
Oklahoma	104	14	98	23	98	20	97	24	92	30	89	35
Oregon	95	35	82	43	80	47	85	43	85	43	95	26
Pennsylvania	104	14	105	11	107	10	104	13	102	13	101	16
Rhode Island	98	29	115	3	119	3	118	6	117	3	114	4
South Carolina	101	22	91	35	90	39	90	36	89	36	88	38
South Dakota	85	48	81	47	79	48	79	48	79	46	83	45
Tennessee	83	49	81	47	78	49	81	47	79	46	81	48
Texas	94	37	96	25	91	37	91	33	90	33	89	35
Utah	108	8	94	29	95	26	90	36	89	36	93	30
Vermont	97	32	99	19	102	15	102	15	100	17	109	6
Virginia	96	33	97	24	94	29	89	39	89	36	86	40
Washington	101	22	99	19	96	24	105	12	104	10	105	11
West Virginia	113	5	111	6	110	9	100	20	99	21	95	26
Wisconsin	108	8	113	5	115	6	121	4	117	3	117	3
Wyoming	115	3	94	29	86	43	77	50	74	49	82	46

Table D4. Index of expenditure need, various years

State	2002 Expenditure Need		1999 Expenditure Need		1997 Expenditure Need		1996 Expenditure Need		1994 Expenditure Need	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Alabama	108	4	103	11	102	13	104	8	102	12
Alaska	100	21	110	3	106	7	102	12	104	8
Arizona	102	15	103	11	106	7	105	7	100	16
Arkansas	109	3	100	18	106	7	100	20	97	23
California	103	13	107	4	109	3	110	3	110	3
Colorado	93	38	97	32	90	44	90	42	88	43
Connecticut	96	30	98	26	101	17	102	12	101	14
D.C.	NA	NA	118	1	121	1	126	1	116	1
Delaware	93	38	96	37	89	46	89	45	88	43
Florida	94	36	92	47	95	32	96	25	94	32
Georgia	105	7	105	6	106	7	104	8	104	8
Hawaii	87	50	90	50	92	41	90	42	85	49
Idaho	98	22	102	13	100	19	100	20	97	23
Illinois	102	15	99	22	100	19	101	15	100	16
Indiana	98	22	96	37	93	38	92	39	99	19
Iowa	91	46	90	50	89	46	89	45	88	43
Kansas	97	25	98	26	95	32	95	29	99	19
Kentucky	102	15	99	22	103	12	101	15	104	8
Louisiana	110	2	106	5	107	4	109	5	115	2
Maine	93	38	91	48	89	46	88	49	85	49
Maryland	95	34	97	32	94	35	95	29	94	32
Massachusetts	95	34	96	37	94	35	93	37	90	41
Michigan	104	9	104	8	100	19	101	15	104	8
Minnesota	92	45	98	26	95	32	94	35	96	27
Mississippi	113	1	104	8	107	4	110	3	105	7
Missouri	97	25	96	37	96	29	92	39	100	16
Montana	97	25	101	16	100	19	98	23	91	39
Nebraska	94	36	96	37	89	46	88	49	86	47
Nevada	91	46	100	18	94	35	94	35	93	35
New Hampshire	88	49	93	46	87	51	84	51	86	47
New Jersey	97	25	97	32	97	26	95	29	95	30
New Mexico	108	4	112	2	112	2	115	2	107	5
New York	101	19	101	16	104	11	104	8	107	5
North Carolina	102	15	100	18	96	29	95	29	97	23
North Dakota	104	9	102	13	98	23	96	25	93	35
Ohio	97	25	98	26	97	26	97	24	99	19
Oklahoma	101	19	99	22	102	13	104	8	102	12
Oregon	93	38	100	18	92	41	91	41	91	39
Pennsylvania	93	38	94	43	93	38	93	37	93	35
Rhode Island	93	38	94	43	91	43	89	45	88	43
South Carolina	105	7	98	26	97	26	101	15	96	27
South Dakota	96	30	95	42	98	23	96	25	97	23
Tennessee	104	9	98	26	102	13	102	12	99	19
Texas	107	6	105	6	107	4	108	6	110	3
Utah	103	13	104	8	96	29	95	29	95	30
Vermont	91	46	91	48	89	46	90	42	83	51
Virginia	96	30	97	32	98	23	96	25	94	32
Washington	96	30	97	32	93	38	95	29	93	35
West Virginia	104	9	99	22	101	17	100	20	101	14
Wisconsin	93	38	94	43	90	44	89	45	89	42
Wyoming	98	22	102	13	102	13	101	15	96	27

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Table D5. Index of fiscal capacity, various years

State	2002 Fiscal Capacity Index	2002 Fiscal Capacity Rank	1999 Fiscal Capacity Index	1999 Fiscal Capacity Rank	1997 Fiscal Capacity Index	1997 Fiscal Capacity Rank	1996 Fiscal Capacity Index	1996 Fiscal Capacity Rank	1994 Fiscal Capacity Index	1994 Fiscal Capacity Rank	1987 Fiscal Capacity Index	1987 Fiscal Capacity Rank
Alabama	76	46	80	46	79	48	79	48	81	48	69	50
Alaska	118	9	99	26	126	6	124	9	130	7	139	6
Arizona	87	38	96	31	95	37	90	39	93	37	77	43
Arkansas	70	49	81	45	76	49	81	45	84	44	70	49
California	106	18	103	21	106	18	94	37	95	33	116	11
Colorado	122	7	107	15	127	5	126	5	125	9	113	13
Connecticut	141	1	129	2	128	4	126	5	131	5	152	1
D.C.	NA	NA	108	12	101	25	100	30	108	17	119	10
Delaware	131	4	129	2	134	3	135	3	135	3	128	8
Florida	109	15	112	9	103	20	104	24	106	21	113	13
Georgia	89	36	94	35	92	39	92	38	91	39	87	35
Hawaii	120	8	130	1	141	1	134	4	147	2	126	9
Idaho	86	39	83	44	87	40	90	39	93	37	77	43
Illinois	102	23	105	18	103	20	109	16	108	17	95	22
Indiana	94	30	98	27	101	25	105	20	97	29	88	33
Iowa	103	21	106	17	106	18	108	19	106	21	87	35
Kansas	94	30	94	35	99	28	101	27	97	29	95	22
Kentucky	89	36	85	43	83	44	83	44	82	47	73	48
Louisiana	75	47	78	48	83	44	81	45	80	49	78	40
Maine	100	26	101	24	107	17	100	30	104	24	109	17
Maryland	113	12	107	15	113	11	113	11	114	11	112	15
Massachusetts	136	2	119	6	120	9	125	8	127	8	145	4
Michigan	93	32	95	34	96	33	97	34	97	29	88	33
Minnesota	118	9	109	10	108	16	113	11	108	17	106	18
Mississippi	64	50	71	51	67	51	65	51	67	51	57	51
Missouri	96	29	97	29	97	31	105	20	95	33	91	28
Montana	93	32	93	39	93	38	101	27	105	23	85	38
Nebraska	101	25	103	21	109	14	112	14	112	13	94	25
Nevada	123	6	129	2	137	2	150	1	153	1	147	3
New Hampshire	134	3	122	5	126	6	141	2	124	10	144	5
New Jersey	125	5	118	7	118	10	122	10	131	5	152	1
New Mexico	79	44	78	48	80	47	74	50	84	44	78	40
New York	111	13	104	20	102	24	105	20	96	32	91	28
North Carolina	90	34	97	29	96	33	97	34	95	33	91	28
North Dakota	90	34	94	35	99	28	101	27	101	27	86	37
Ohio	97	27	96	31	97	31	99	33	98	28	95	22
Oklahoma	81	43	80	46	82	46	80	47	84	44	90	31
Oregon	106	18	108	12	113	11	113	11	109	16	94	25
Pennsylvania	102	23	98	27	99	28	102	25	103	25	102	21
Rhode Island	109	15	96	31	101	25	102	25	103	25	112	15
South Carolina	79	44	88	40	87	40	85	42	89	41	76	45
South Dakota	97	27	101	24	96	33	100	30	94	36	75	46
Tennessee	86	39	94	35	87	40	90	39	91	39	81	39
Texas	86	39	86	42	85	43	85	42	86	43	90	31
Utah	83	42	87	41	96	33	97	34	89	41	75	46
Vermont	110	14	109	10	113	11	111	15	114	11	115	12
Virginia	106	18	105	18	103	20	105	20	111	14	104	19
Washington	109	15	113	8	109	14	109	16	110	15	104	19
West Virginia	73	48	72	50	76	49	78	49	80	49	78	40
Wisconsin	103	21	102	23	103	20	109	16	108	17	93	27
Wyoming	117	11	108	12	122	8	126	5	133	4	134	7

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Table D6. Summary data, representative revenue system, FY2002

State	2002 population	2002 revenue capacity ($millions)	Per capita revenue capacity	Revenue capacity index	Rank	2002 revenue ($millions)	Per capita revenue	Revenue effort index	Rank
United States	287,376,577	$1,338,934	$4,659	100		$1,338,934	$4,659	100	
Alabama	4,481,078	17,118	3,820	82	46	17,613	3,931	103	18
Alaska	640,841	3,522	5,496	118	5	5,471	8,537	155	1
Arizona	5,439,091	22,555	4,147	89	39	20,027	3,682	89	43
Arkansas	2,707,509	9,632	3,557	76	48	9,694	3,580	101	22
California	34,988,261	177,012	5,059	109	11	181,031	5,174	102	20
Colorado	4,498,077	23,758	5,282	113	8	22,002	4,891	93	40
Connecticut	3,459,006	21,696	6,272	135	1	18,839	5,446	87	46
Delaware	806,105	4,577	5,678	122	3	4,822	5,982	105	12
Florida	16,681,144	78,902	4,730	102	17	73,366	4,398	93	40
Georgia	8,539,735	37,118	4,346	93	29	35,237	4,126	95	35
Hawaii	1,234,514	5,984	4,848	104	15	5,929	4,802	99	27
Idaho	1,343,194	5,259	3,915	84	43	5,318	3,959	101	22
Illinois	12,585,204	60,956	4,843	104	15	57,131	4,540	94	37
Indiana	6,158,327	26,529	4,308	92	33	26,308	4,272	99	27
Iowa	2,934,776	12,819	4,368	94	26	13,372	4,556	104	14
Kansas	2,712,896	11,458	4,224	91	36	11,635	4,289	102	20
Kentucky	4,089,985	17,255	4,219	91	36	15,944	3,898	92	42
Louisiana	4,477,042	17,218	3,846	83	44	19,692	4,398	114	4
Maine	1,297,750	5,634	4,342	93	29	6,287	4,844	112	6
Maryland	5,441,531	27,243	5,007	107	13	26,710	4,908	98	29
Massachusetts	6,412,554	38,437	5,994	129	2	33,208	5,179	86	47
Michigan	10,042,495	45,464	4,527	97	22	45,890	4,570	101	22
Minnesota	5,025,081	25,412	5,057	109	11	27,369	5,446	108	8
Mississippi	2,867,635	9,612	3,352	72	50	10,804	3,768	112	6
Missouri	5,679,770	24,684	4,346	93	29	21,859	3,849	89	43
Montana	910,670	3,832	4,208	90	38	3,600	3,954	94	37
Nebraska	1,726,437	7,649	4,430	95	24	7,917	4,586	104	14
Nevada	2,168,304	11,313	5,217	112	9	10,016	4,619	89	43
New Hampshire	1,275,607	6,993	5,482	118	5	5,283	4,142	76	50
New Jersey	8,577,250	48,467	5,651	121	4	47,641	5,554	98	29
New Mexico	1,855,143	7,321	3,946	85	42	7,814	4,212	107	11
New York	19,151,066	100,351	5,240	112	9	122,107	6,376	122	2
North Carolina	8,311,899	35,588	4,282	92	33	34,172	4,111	96	33
North Dakota	633,799	2,790	4,402	94	26	2,878	4,541	103	18
Ohio	11,410,396	49,977	4,380	94	26	52,306	4,584	105	12
Oklahoma	3,488,201	13,377	3,835	82	46	13,871	3,977	104	14
Oregon	3,523,281	16,311	4,629	99	21	15,505	4,401	95	35
Pennsylvania	12,328,459	54,465	4,418	95	24	56,780	4,606	104	14
Rhode Island	1,068,897	5,024	4,701	101	19	4,946	4,627	98	29
South Carolina	4,105,848	15,855	3,861	83	44	16,045	3,908	101	22
South Dakota	760,452	3,307	4,349	93	29	2,805	3,689	85	48

State	2002 population	2002 revenue capacity ($millions)	Per capita revenue capacity	Revenue capacity index	Rank	2002 revenue ($millions)	Per capita revenue	Revenue effort index	Rank
Tennessee	5,792,297	23,976	4,139	89	39	19,988	3,451	83	49
Texas	21,723,220	92,786	4,271	92	33	87,273	4,017	94	37
Utah	2,319,743	9,245	3,985	86	41	10,016	4,318	108	8
Vermont	616,500	2,874	4,662	100	20	2,792	4,528	97	32
Virginia	7,273,572	34,550	4,750	102	17	33,138	4,556	96	33
Washington	6,067,146	29,554	4,871	105	14	29,845	4,919	101	22
West Virginia	1,805,230	6,412	3,552	76	48	7,247	4,015	113	5
Wisconsin	5,440,367	24,382	4,482	96	23	26,317	4,837	108	8
Wyoming	499,192	2,681	5,370	115	7	3,075	6,160	115	3

Table D7. Summary data, revenue capacity ($millions, except population), FY2002, part I

State	2002 population	General sales tax capacity	Motor fuels tax capacity	Public utilities tax capacity	Insurance tax capacity	Tobacco tax capacity	Alcohol (beer, wine, and spirits) tax capacity	Amusement tax capacity	Pari-mutuels tax capacity	Motor vehicle license tax capacity	Motor vehicle operator license tax capacity
United States	287,376,577	222,428	33,009	20,097	11,158	9,076	12,046	4,079	308	16,925	1,419
Alabama	4,481,078	2,963	631	323	124	168	162	24	4	323	26
Alaska	640,841	555	71	53	24	18	32	9	0	45	3
Arizona	5,439,091	4,114	630	347	259	123	251	87	5	291	26
Arkansas	2,707,509	1,691	371	186	71	104	94	13	5	138	14
California	34,988,261	27,502	3,542	2,323	1,223	549	1,423	638	41	2,150	161
Colorado	4,498,077	3,921	505	315	193	130	241	93	3	250	24
Connecticut	3,459,006	3,115	341	257	247	101	152	49	6	215	19
Delaware	806,105	793	92	61	139	50	46	21	3	49	4
Florida	16,681,144	15,250	1,783	1,146	684	568	835	352	28	1,042	59
Georgia	8,539,735	6,374	1,253	584	263	296	344	76	0	551	24
Hawaii	1,234,514	1,226	91	87	42	28	56	21	0	65	16
Idaho	1,343,194	923	162	87	54	37	54	9	1	100	10
Illinois	12,585,204	9,383	1,277	862	582	394	545	180	19	716	108
Indiana	6,158,327	4,697	861	422	222	330	237	88	3	416	27
Iowa	2,934,776	2,128	401	196	139	111	114	39	1	244	17
Kansas	2,712,896	1,819	316	188	118	93	95	23	2	172	9
Kentucky	4,089,985	2,732	600	261	120	255	141	33	10	266	11
Louisiana	4,477,042	3,066	549	341	144	193	207	71	7	268	58
Maine	1,297,750	1,067	159	87	39	46	59	12	1	73	25
Maryland	5,441,531	4,353	600	367	228	134	226	66	9	288	16
Massachusetts	6,412,554	5,566	634	490	376	157	314	102	7	390	20
Michigan	10,042,495	7,741	1,186	660	367	347	414	145	6	627	53
Minnesota	5,025,081	4,174	632	342	204	157	241	71	1	334	26
Mississippi	2,867,635	1,815	411	198	83	116	117	14	0	144	14
Missouri	5,679,770	4,340	795	394	208	248	247	87	0	311	21
Montana	910,670	623	136	61	27	30	45	15	0	77	13
Nebraska	1,726,437	1,249	240	121	83	59	73	15	2	121	15
Nevada	2,168,304	2,885	249	167	70	77	151	73	8	93	9
New Hampshire	1,275,607	1,396	157	89	49	74	106	19	5	83	16
New Jersey	8,577,250	7,529	966	660	452	220	370	102	20	489	38
New Mexico	1,855,143	1,302	248	113	46	42	83	40	2	109	30
New York	19,151,066	13,978	1,308	1,447	878	393	713	339	48	756	36
North Carolina	8,311,899	6,269	998	592	286	359	309	98	0	454	28
North Dakota	633,799	501	98	46	22	19	34	8	3	52	16
Ohio	11,410,396	8,425	1,289	776	429	490	437	140	10	774	31
Oklahoma	3,488,201	2,176	533	230	98	157	121	35	3	234	13

State	2002 population	General sales tax capacity	Motor fuels tax capacity	Public utilities tax capacity	Insurance tax capacity	Tobacco tax capacity	Alcohol (beer, wine, and spirits) tax capacity	Amusement tax capacity	Pari-mutuels tax capacity	Motor vehicle license tax capacity	Motor vehicle operator license tax capacity
Oregon	3,523,281	2,772	364	226	110	103	155	38	3	225	15
Pennsylvania	12,328,459	8,990	1,283	888	497	475	458	147	20	705	34
Rhode Island	1,068,897	781	91	68	40	35	50	15	2	57	23
South Carolina	4,105,848	2,852	581	315	130	176	182	36	0	234	15
South Dakota	760,452	590	103	47	30	25	34	11	1	60	42
Tennessee	5,792,297	4,293	753	409	183	264	207	62	0	365	37
Texas	21,723,220	16,285	2,821	1,661	774	553	870	196	10	1,072	65
Utah	2,319,743	1,719	264	129	66	40	54	54	0	133	34
Vermont	616,500	521	82	44	22	25	28	10	0	39	10
Virginia	7,273,572	5,734	941	518	256	294	274	92	2	458	28
Washington	6,067,146	4,636	642	394	186	120	252	104	2	387	46
West Virginia	1,805,230	1,165	217	118	49	89	60	30	4	107	7
Wisconsin	5,440,367	4,062	626	359	207	182	300	71	2	332	23
Wyoming	499,192	384	127	43	15	20	25	5	0	43	3

Table D8. Summary data, revenue capacity ($millions), FY2002, part II

State	Corporation license tax capacity	Fishing and hunting license tax capacity	Personal income tax capacity	Corporate income tax capacity	Property tax capacity	Death and gift tax capacity	Severance tax capacity	All other tax capacity	Total tax capacity	Revenue capacity lotteries	Revenue capacity user charges	Revenue capacity other nontax revenues	Total revenue capacity
United States	5,842	1,182	201,909	27,941	278,318	7,384	4,234	51,838	909,212	15,766	264,225	149,758	1,338,961
Alabama	66	21	2,405	305	3,193	87	84	667	11,577	214	3,400	1,927	17,118
Alaska	11	14	516	62	734	4	263	121	2,537	16	619	351	3,522
Arizona	97	16	3,287	438	4,719	85	67	845	15,685	124	4,305	2,440	22,555
Arkansas	50	30	1,355	168	1,834	23	33	371	6,551	122	1,889	1,070	9,632
California	513	68	26,713	3,176	43,868	1175	335	6,725	122,124	1,183	34,277	19,428	177,011
Colorado	127	27	3,567	442	5,489	89	112	897	16,425	170	4,571	2,591	23,758
Connecticut	62	6	3,612	534	4,427	165	4	861	14,173	645	4,390	2,488	21,696
Delaware	23	1	687	351	766	49	1	155	3,290	45	792	449	4,577
Florida	580	28	11,448	1,271	16,423	597	51	2,903	55,049	668	14,798	8,387	78,902
Georgia	183	21	5,628	773	7,206	126	42	1,435	25,178	477	7,316	4,146	37,118
Hawaii	27	9	816	81	1,387	25	36	213	4,226	56	1,086	616	5,984
Idaho	27	24	711	88	1,138	11	12	198	3,646	29	1,011	573	5,259
Illinois	290	49	9,798	1,433	12,559	375	77	2,424	41,071	526	12,356	7,003	60,956
Indiana	110	26	3,865	514	5,142	126	22	1,011	18,119	339	5,151	2,920	26,529
Iowa	57	12	1,763	299	2,829	41	10	483	8,884	79	2,461	1,395	12,819
Kansas	49	7	1,726	223	2,286	54	84	461	7,725	55	2,348	1,331	11,458
Kentucky	68	13	2,303	298	4,418	51	21	609	12,210	185	3,102	1,758	17,255
Louisiana	92	30	2,373	340	2,824	51	543	661	11,815	127	3,367	1,908	17,218
Maine	29	20	789	89	1,127	30	27	211	3,889	61	1,075	609	5,634
Maryland	99	7	3,952	487	5,404	168	8	1,165	17,579	361	5,938	3,366	27,243
Massachusetts	139	13	6,276	815	8,513	266	8	1,465	25,552	1,190	7,465	4,231	38,437
Michigan	201	50	6,947	983	9,190	167	71	1,778	30,934	329	9,063	5,137	45,464
Minnesota	116	41	3,987	658	5,297	134	33	978	17,426	173	4987	2,826	25,412
Mississippi	41	18	1,274	148	1,718	29	34	375	6,548	70	1,911	1,083	9,612
Missouri	101	26	3,738	541	4,685	170	31	944	16,887	259	4,812	2,727	24,684
Montana	26	22	493	53	949	14	37	134	2,755	9	682	386	3,832
Nebraska	39	17	1,123	160	1,611	27	9	295	5,261	30	1,505	853	7,649
Nevada	60	9	1,635	206	1,875	36	49	390	8,042	152	1,990	1,128	11,313
New Hampshire	25	10	954	118	1,525	31	7	254	4,917	45	1,296	735	6,993
New Jersey	256	7	7,402	1,096	10,039	265	8	1,975	31,895	802	10,065	5,705	48,467
New Mexico	29	34	1,046	118	1,343	35	263	264	5,146	70	1,344	762	7,321
New York	552	56	17,352	3,063	21,166	896	38	3,970	66,989	1,654	20,237	11,470	100,351
North Carolina	157	24	5,219	705	7,465	144	14	1,340	24461	426	6,830	3,871	35,588
North Dakota	12	23	381	48	575	7	52	98	1,994	13	500	283	2,790
Ohio	194	28	7,691	1,083	9,446	240	44	1,952	33,480	908	9,950	5,640	49,978

State	Corporation license tax capacity	Fishing and hunting license tax capacity	Personal income tax capacity	Corporate income tax capacity	Property tax capacity	Death and gift tax capacity	Severance tax capacity	All other tax capacity	Total tax capacity	Revenue capacity lotteries	Revenue capacity user charges	Revenue capacity other nontax revenues	Total revenue capacity
Oklahoma	65	19	1,830	248	2,437	56	228	528	9,010	147	2,693	1,526	13,377
Oregon	72	17	2,337	284	3,640	90	50	597	11,098	446	3,043	1,725	16,311
Pennsylvania	202	32	8,538	1,242	9,980	320	24	2,240	36,073	505	11,416	6,471	54,465
Rhode Island	25	4	731	90	977	23	6	197	3,215	235	1,005	569	5,024
South Carolina	75	15	2,281	285	2,978	56	17	610	10,838	148	3,107	1,761	15,855
South Dakota	15	30	446	57	679	6	21	121	2,318	25	615	349	3,307
Tennessee	68	39	3,504	465	4,521	102	23	933	16,228	300	4,754	2,694	23,976
Texas	355	49	13,785	2,101	16,506	391	996	3,671	62,163	1,302	18,714	10,607	92,786
Utah	50	26	1,340	169	1,960	25	68	341	6,471	52	1,737	985	9,245
Vermont	17	16	411	47	593	20	9	106	1,999	30	539	306	2874
Virginia	139	26	4,289	612	7,725	192	16	1,409	23,007	288	7184	4,072	34,550
Washington	117	41	4,598	484	6,655	162	28	1,157	20,012	302	5,897	3,342	29,554
West Virginia	22	8	864	105	1,102	19	4	254	4,223	163	1,294	733	6,412
Wisconsin	94	39	3,764	532	4,860	118	14	957	16,543	197	4,877	2,764	24,382
Wyoming	14	11	360	50	535	13	203	91	1,943	14	462	262	2,681

Table D9. Summary data, actual revenues ($millions), FY2002, part I

State	General sales	Motor fuels	Public utilities	Insurance	Tobacco	Alcohol	Amusement	Pari-mutuels	Motor vehicle licenses	Motor vehicle operator licenses	Corporation licenses
United States	222,428	33,009	20,097	11,158	9,076	12,046	4,079	308	16,925	1,419	5,842
Alabama	2,968	557	580	220	79	284	0	4	207	13	72
Alaska	122	40	9	37	51	20	3	-	47	-	1
Arizona	5,783	625	178	199	162	191	1	1	153	15	8
Arkansas	2,541	414	87	112	93	60	-	4	107	22	10
California	31,293	3,296	2,816	1,596	1,103	748	-	45	1,740	151	48
Colorado	4,128	569	114	158	66	181	95	6	184	17	7
Connecticut	3,044	425	167	207	158	112	365	7	241	34	17
Delaware	-	108	33	76	28	12	-	0	32	0	534
Florida	15,034	2,379	2,920	414	466	1,441	-	30	957	121	128
Georgia	7,493	650	208	296	94	443	-	-	269	24	41
Hawaii	1,612	143	154	70	66	69	-	-	133	0	2
Idaho	796	214	16	66	28	49	-	-	116	6	1
Illinois	7,528	1,562	2,363	285	530	489	591	13	1,458	72	165
Indiana	3,798	742	19	179	123	133	521	5	301	-	6
Iowa	2,016	343	36	136	94	111	202	3	378	8	32
Kansas	2,295	377	122	97	52	91	1	4	145	12	29
Kentucky	2,312	461	179	258	17	132	0	18	214	12	181
Louisiana	4,838	559	160	288	129	134	497	6	118	11	265
Maine	836	192	7	60	94	82	-	5	105	10	3
Maryland	2,690	703	279	197	210	115	5	3	200	20	15
Massachusetts	3,696	667	-	361	275	111	6	7	270	58	19
Michigan	7,784	1,090	77	227	670	509	92	12	891	43	12
Minnesota	3,782	620	69	163	174	237	56	1	497	31	5
Mississippi	2,341	417	51	130	56	145	184	-	112	24	62
Missouri	4,246	695	357	217	124	123	220	-	249	21	20
Montana	-	191	31	51	13	26	44	0	127	4	2
Nebraska	1,287	308	91	38	44	59	6	1	104	8	6
Nevada	2,217	414	144	156	64	156	721	-	130	13	36
New Hampshire	-	120	64	69	83	114	2	4	77	14	4
New Jersey	5,997	524	840	346	407	383	351	-	372	32	122
New Mexico	1,765	200	50	52	18	80	32	1	119	6	2
New York	16,630	492	1,770	585	1,038	820	1	38	808	106	66
North Carolina	4,909	1,209	407	348	42	409	11	-	437	69	274
North Dakota	395	111	38	26	22	28	14	3	52	4	-
Ohio	7,687	1,376	827	366	286	441	-	17	718	42	264
Oklahoma	2,600	410	109	149	72	110	7	3	570	12	44
Oregon	-	409	143	54	176	111	0	2	275	27	0

State	General sales	Motor fuels	Public utilities	Insurance	Tobacco	Alcohol	Amusement	Pari-mutuels	Motor vehicle licenses	Motor vehicle operator licenses	Corporation licenses
Pennsylvania	7,500	1,753	749	503	317	523	1	29	771	54	698
Rhode Island	732	130	80	32	83	73	-	5	53	1	12
South Carolina	2,435	411	114	113	27	219	29	-	110	21	59
South Dakota	672	123	4	45	19	43	0	1	66	2	2
Tennessee	5,842	814	55	283	84	273	-	-	342	40	421
Texas	18,322	2,835	1,616	972	540	1,039	21	13	1,292	115	1,991
Utah	1,970	336	81	88	51	102	-	-	86	9	2
Vermont	215	71	10	36	27	33	-	-	41	3	2
Virginia	3,587	849	591	293	52	342	0	-	447	30	30
Washington	9,231	743	735	291	331	407	0	2	338	41	16
West Virginia	963	300	219	89	32	51	-	12	88	4	7
Wisconsin	3,914	955	315	107	303	156	0	2	314	33	89
Wyoming	580	75	14	15	5	17	-	0	63	3	8

Table D10. Summary data, actual revenues ($millions), FY2002, part II

State	Fishing and hunting licenses	Personal income taxes	Corporate income taxes	Property taxes	Death and gift taxes	Severance taxes	All other taxes	Revenues from lotteries	User charges and fees	All other nontax revenues	Total revenues
United States	1,182	201,909	27,941	278,318	7,384	4,234	51,838	15,766	264,225	149,758	1,338,934
Alabama	15	2,127	323	1,474	83	66	771	-	6,005	1,767	17,613
Alaska	20	-	269	830	3	551	70	-	741	2,654	5,471
Arizona	20	2,091	346	4,254	82	6	444	115	2,977	2,377	20,027
Arkansas	21	1,566	177	1,004	39	13	217	-	2,012	1,194	9,694
California	74	33,047	5,333	30,243	1,000	29	8,318	1,196	38,185	20,771	181,031
Colorado	57	3,476	205	4,162	72	57	497	138	4,682	3,131	22,002
Connecticut	3	3,685	149	5,995	160	-	426	364	1,765	1,513	18,839
Delaware	1	763	252	400	41	-	408	338	1,088	708	4,822
Florida	13	-	1,219	15,754	752	40	4,065	1,037	15,789	10,807	73,366
Georgia	23	6,488	568	6,640	123	-	884	855	7,012	3,126	35,237
Hawaii	0	1,112	53	615	17	-	223	-	1,055	605	5,929
Idaho	30	842	77	959	10	4	122	33	1,370	582	5,318
Illinois	25	7,471	1,384	15,873	329	0	1,735	594	8,331	6,332	57,131
Indiana	23	4,121	709	5,976	142	1	283	197	5,896	3,134	26,308
Iowa	20	1,814	88	2,878	80	-	187	70	3,316	1,557	13,372
Kansas	17	1,855	122	2,525	48	67	126	81	2,172	1,397	11,635
Kentucky	22	3,496	302	1,977	85	187	986	255	2,891	1,958	15,944
Louisiana	33	1,789	264	1,940	69	494	668	129	4,491	2,811	19,692
Maine	9	1,073	77	1,912	23	-	91	54	874	780	6,287
Maryland	11	7,644	359	5,412	183	-	1,917	573	4,149	2,024	26,710
Massachusetts	6	7,913	812	8,722	201	-	818	1,201	4,160	3,906	33,208
Michigan	49	6,598	2,065	9,793	131	32	933	685	9,450	4,745	45,890
Minnesota	51	5,443	534	5,215	66	13	1,678	130	4,958	3,645	27,369
Mississippi	13	985	196	1,647	30	32	204	-	3,098	1,077	10,804
Missouri	29	3,929	300	3,880	134	-	676	196	3,910	2,532	21,859
Montana	33	518	68	852	14	89	79	15	809	634	3,600
Nebraska	14	1,153	108	1,749	16	1	364	35	1,463	1,062	7,917
Nevada	7	-	-	1,702	30	21	762	-	2,288	1,156	10,016
New Hampshire	8	71	377	2,169	56	-	468	80	876	626	5,283
New Jersey	14	6,867	1,101	16,050	510	-	1,015	839	7,835	4,037	47,641
New Mexico	17	983	124	756	19	453	244	47	1,256	1,589	7,814
New York	34	30,208	5,075	26,826	768	-	4,233	1,827	20,312	10,471	122,107
North Carolina	15	7,265	668	5,422	118	2	1,168	-	8,592	2,804	34,172
North Dakota	10	200	50	532	5	138	124	-	723	403	2,878
Ohio	28	11,794	761	10,643	116	9	1,136	835	9,363	5,597	52,306
Oklahoma	16	2,286	174	1,482	86	364	333	-	3,443	1,601	13,871
Oregon	33	3,675	196	3,139	65	30	765	411	4,114	1,879	15,505
Pennsylvania	60	9,510	1,198	10,911	762	-	2,612	773	11,599	6,455	56,780
Rhode Island	1	824	28	1,462	19	-	150	217	568	476	4,946
South Carolina	15	2,349	160	3,096	64	-	624	135	4,623	1,440	16,045

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State	Fishing and hunting licenses	Personal income taxes	Corporate income taxes	Property taxes	Death and gift taxes	Severance taxes	All other taxes	Revenues from lotteries	User charges and fees	All other nontax revenues	Total revenues
South Dakota	22	-	41	668	23	2	139	117	446	369	2,805
Tennessee	25	146	503	3,453	100	1	688	-	5,153	1,765	19,988
Texas	64	0	-	24,521	333	975	4,805	1,098	16,745	9,975	87,273
Utah	22	1,605	111	1,420	9	29	180	-	2,557	1,356	10,016
Vermont	6	408	37	824	14	-	256	25	441	344	2,792
Virginia	20	6,711	309	6,711	134	2	2,234	432	6,657	3,708	33,138
Washington	31	-	-	5,791	114	43	1,633	156	6,908	3,035	29,845
West Virginia	16	1,035	220	901	13	177	553	329	1,407	831	7,247
Wisconsin	59	4,974	445	6,466	83	3	502	155	4,964	2,477	26,317
Wyoming	26	-	-	692	10	302	26	-	705	535	3,075

Table D11. Representative state and local expenditures by function, adjusted for input cost differences and normalized, FY 2002 (per capita dollars)

State	Elem and secondary education	Higher ed	Pub. welf.	Health and hosp.	Highways	Police and corrects.	Environ. and housing	Gov. admin.	Interest on general debt	All other	Total expen. need	Index of expen. need	Rank
United States	1,427	545	973	510	401	412	464	322	261	691	6,007	100	.
Alabama	1,386	541	1,231	644	530	456	457	310	261	675	6,492	108	4
Alaska	1,848	517	586	427	370	451	476	341	261	718	5,995	100	21
Arizona	1,560	526	1,060	481	367	434	456	309	261	674	6,128	102	15
Arkansas	1,395	500	1,497	624	531	357	442	287	261	645	6,539	109	3
California	1,604	586	960	464	339	469	475	338	261	714	6,211	103	13
Colorado	1,430	553	660	442	422	368	463	320	261	690	5,610	93	38
Connecticut	1,474	525	720	500	349	364	486	356	261	738	5,772	96	30
Delaware	1,266	565	667	507	412	368	471	333	261	707	5,557	93	38
Florida	1,210	445	1,102	514	367	357	450	299	261	661	5,666	94	36
Georgia	1,528	564	986	520	500	458	465	323	261	693	6,297	105	7
Hawaii	1,151	457	925	420	255	313	455	307	261	672	5,216	87	50
Idaho	1,498	541	899	463	512	315	446	293	261	653	5,880	98	22
Illinois	1,489	585	937	487	344	496	475	338	261	714	6,126	102	15
Indiana	1,439	573	722	522	474	438	464	322	261	692	5,908	98	22
Iowa	1,220	539	778	470	529	294	448	296	261	656	5,491	91	46
Kansas	1,376	541	838	479	588	339	453	303	261	666	5,846	97	25
Kentucky	1,318	532	1,108	646	475	369	455	306	261	671	6,141	102	15
Louisiana	1,420	577	1,383	584	385	573	458	312	261	678	6,631	110	2
Maine	1,177	438	1,063	575	449	255	442	287	261	645	5,593	93	38
Maryland	1,382	523	642	458	368	518	476	341	261	718	5,688	95	34
Massachusetts	1,317	563	830	543	316	350	475	339	261	715	5,709	95	34
Michigan	1,554	582	878	547	410	479	478	344	261	722	6,255	104	9
Minnesota	1,349	552	667	431	494	331	462	318	261	687	5,553	92	45
Mississippi	1,409	552	1,508	669	539	472	446	292	261	652	6,800	113	1
Missouri	1,290	521	891	523	504	402	453	304	261	667	5,816	97	25
Montana	1,204	460	1,066	495	714	279	431	269	261	620	5,798	97	25
Nebraska	1,238	520	860	447	605	309	444	289	261	648	5,619	94	36
Nevada	1,441	484	595	452	365	448	457	310	261	676	5,489	91	46
New Hampshire	1,315	495	584	480	390	289	462	318	261	687	5,282	88	49
New Jersey	1,464	537	722	504	310	403	489	361	261	745	5,797	97	25
New Mexico	1,501	502	1,321	514	568	401	446	293	261	653	6,460	108	4
New York	1,351	557	1,162	545	268	403	470	331	261	704	6,052	101	19
North Carolina	1,365	516	1,127	570	431	409	455	307	261	671	6,113	102	15
North Dakota	1,209	540	1,161	458	1,008	271	435	275	261	629	6,248	104	9
Ohio	1,385	550	856	510	376	386	467	326	261	697	5,814	97	25
Oklahoma	1,365	522	1,071	518	575	363	444	290	261	649	6,059	101	19
Oregon	1,325	519	865	480	419	307	454	305	261	669	5,605	93	38
Pennsylvania	1,245	524	853	516	335	397	464	321	261	691	5,609	93	38

State	Elem and secondary education	Higher ed	Pub. welf.	Health and hosp.	Highways	Police and corrects.	Environ. and housing	Gov. admin.	Interest on general debt	All other	Total expen. need	Index of expen. need	Rank
Rhode Island	1,208	562	911	555	283	369	460	314	261	681	5,603	93	38
South Carolina	1,374	527	1,234	591	461	418	453	304	261	667	6,291	105	7
South Dakota	1,224	491	874	447	868	256	431	270	261	621	5,745	96	30
Tennessee	1,332	528	1,204	607	468	432	456	308	261	674	6,271	104	9
Texas	1,659	574	1,191	462	410	431	462	318	261	687	6,456	107	6
Utah	1,786	725	720	403	442	382	461	317	261	685	6,181	103	13
Vermont	1,138	492	821	508	621	277	443	287	261	645	5,493	91	46
Virginia	1,397	524	759	501	407	415	469	329	261	702	5,764	96	30
Washington	1,444	539	852	484	373	354	466	324	261	695	5,791	96	30
West Virginia	1,226	502	1,380	698	461	304	447	294	261	654	6,227	104	9
Wisconsin	1,283	545	766	462	460	344	457	311	261	677	5,566	93	38
Wyoming	1,378	528	664	479	854	320	450	299	261	661	5,894	98	22

Table D12. Actual per capita direct general expenditures, FY 2002 (per capita dollars)

State	Elementary and secondary education	Higher education	Public welfare	Health and hospitals	Highways	Police and corrections	Environment and housing	Governmental administration	Interest on general debt	All other	Direct general expenditure
United States	1,427	545	973	510	401	412	464	322	261	691	6,007
Alabama	1,136	607	929	911	372	261	407	213	183	472	5,491
Alaska	2,339	760	1,615	410	1,429	686	965	816	667	3,489	13,175
Arizona	1,061	497	707	282	352	438	413	302	201	493	4,745
Arkansas	1,090	531	958	338	483	285	327	248	154	413	4,827
California	1,521	582	1,016	599	328	545	590	447	248	856	6,732
Colorado	1,306	635	628	478	630	429	497	325	286	841	6,054
Connecticut	1,723	450	1,004	550	354	410	455	393	413	1,244	6,996
Delaware	1,493	781	871	406	576	488	502	504	405	618	6,643
Florida	1,116	347	749	448	403	465	539	293	250	609	5,219
Georgia	1,443	456	873	566	344	389	419	281	133	513	5,416
Hawaii	1,168	642	924	528	339	334	731	428	464	1,156	6,715
Idaho	1,214	515	771	451	460	350	432	312	156	404	5,065
Illinois	1,426	517	784	413	451	406	548	330	312	680	5,866
Indiana	1,297	587	863	467	330	282	408	304	191	591	5,320
Iowa	1,296	793	914	643	600	269	398	286	128	530	5,856
Kansas	1,273	653	738	454	563	309	314	348	232	598	5,482
Kentucky	953	587	1,178	353	477	279	339	247	364	491	5,268
Louisiana	1,167	467	678	809	342	372	406	313	235	570	5,359
Maine	1,389	431	1,381	385	476	252	427	326	253	804	6,124
Maryland	1,496	650	871	274	341	476	532	302	251	678	5,871
Massachusetts	1,600	393	894	492	508	400	485	320	505	1,004	6,600
Michigan	1,592	727	980	562	322	410	399	287	238	560	6,075
Minnesota	1,546	586	1,487	391	533	332	591	347	289	849	6,952
Mississippi	1,030	642	1,129	746	431	273	269	221	173	450	5,365
Missouri	1,301	466	972	428	435	323	312	229	183	464	5,114
Montana	1,243	556	737	415	596	321	492	367	231	589	5,546
Nebraska	1,436	690	986	351	535	304	385	252	148	556	5,645
Nevada	1,280	374	517	426	586	532	455	420	312	526	5,427
New Hampshire	1,418	440	807	144	395	256	329	283	318	582	4,973
New Jersey	1,866	470	770	319	345	469	521	327	277	975	6,341
New Mexico	1,351	788	1,119	447	616	421	393	337	204	488	6,164
New York	1,999	417	1,697	679	370	594	566	390	435	1,267	8,414
North Carolina	1,155	619	921	732	363	322	400	210	162	475	5,359
North Dakota	1,181	805	1,047	164	727	216	557	284	237	914	6,132
Ohio	1,446	511	1,076	478	359	371	435	408	236	557	5,876
Oklahoma	1,257	639	915	374	443	324	315	248	150	540	5,205
Oregon	1,364	720	1,148	623	340	454	548	451	209	668	6,525
Pennsylvania	1,334	468	1,175	418	429	397	414	278	328	705	5,947
Rhode Island	1,473	449	1,559	280	310	371	424	348	303	803	6,321
South Carolina	1,402	519	1,065	766	363	315	302	314	282	473	5,801

State	Elementary and secondary education	Higher education	Public welfare	Health and hospitals	Highways	Police and corrections	Environment and housing	Governmental administration	Interest on general debt	All other	Direct general expenditure
South Dakota	1,238	476	795	224	763	261	437	262	227	424	5,108
Tennessee	1,062	511	1,115	570	306	288	322	215	159	450	4,998
Texas	1,476	575	686	465	338	374	336	208	228	441	5,127
Utah	1,227	919	688	370	438	352	460	394	183	514	5,544
Vermont	1,519	695	1,228	142	588	278	429	413	265	615	6,172
Virginia	1,430	571	643	438	426	371	392	310	234	583	5,399
Washington	1,350	656	1,022	661	392	369	640	287	254	739	6,370
West Virginia	1,263	554	1,185	286	579	218	330	354	247	453	5,469
Wisconsin	1,556	682	1,022	383	549	450	493	285	268	563	6,250
Wyoming	1,716	722	764	1,034	956	463	654	488	256	667	7,719