Research Report on America's Cities

Are State and Local Revenue Systems Becoming Obsolete?

National League of Cities

Metropolitan Policy Program
The Brookings Institution

Research Report

NLC 's "Research Reports" series consists of empirical studies about conditions and policies in America 's municipalities. The series editor is William Barnes, Director, Center for Research & Municipal Development, NLC.

- The State of America's Cities 2004: The Annual Opinion Survey of Municipal Elected Officials
- Land Use and Development Challenges in America 's Cities
- Strengthening Families in America 's Cities: Youth Conditions and Participation
- Strengthening Families in America 's Cities: Family Economic Security
- Strengthening Families in America 's Cities: Municipal Finance for Children and Family Programs
- Strengthening Families in America 's Cities: Afterschool
- Strengthening Families in America 's Cities: Early Childhood Development
- Is the Federal-State-Local Partnership Being Dismantled?: Roundtable Discussion
- The Impact of Federal Fiscal Policy on State and Local Fiscal Crisis: Roundtable Discussion
- The Faces of America 's City Councils: America 's City Councils in Profile, Part I
- Serving on City Councils: America 's City Councils in Profile, Part II
- Demographic Change in Small Cities, 1990–2000
- City Fiscal Conditions in 2003
- Local Elected Officials and the Internet
- Homeland Security and America 's Cities
- City Fiscal Conditions in 2002
- City Fiscal Conditions in 2001
- State of America 's Cities, 17th Annual Opinion Survey of Municipal Elected Officials
- Toward a System of Public Finance for the 21st Century
- City Fiscal Conditions in 2000

For ordering information on these or other NLC publications, contact:

Publication Sales
National League of Cities
1301 Pennsylvania Avenue, N.W.
Washington, DC 20004-1763
(202) 626-3000
www.nlc.org

Research Report on America's Cities

Are State and Local Revenue Systems Becoming Obsolete?

by Robert Tannenwald

National League of Cities

Metropolitan Policy Program
The Brookings Institution

Table of Contents

About the Author

Robert Tannenwald is an Assistant Vice President and Economist in the Research Department of the Federal Reserve Bank of Boston, where he specializes in state and local public finance. In 2000 he served as a member and Research Director of the New Hampshire Commission on Education Funding. In 1992 and 1993 he served as Research Director of the Massachusetts Special Commission on Business Tax Policy. From 1984 to 1986 he served as the Executive Director of the Massachusetts Special Commission on Tax Reform. He publishes a newsletter, Fiscal Facts, on the fiscal condition of the New England States. He has published extensively in the field of public finance. He is a member of the Board of Directors of the National Tax Association.

Dr. Tannenwald graduated Summa Cum Laude from Dartmouth College and received his Ph.D. from Harvard University, where he was a Danforth Graduate Fellow.

Robert Tannenwald
Assistant Vice President and Economist
Research Department
Federal Reserve Bank of Boston
600 Atlantic Avenue
Boston, MA 02106

Acknowledgements

Thank you to those whose review, comments, and suggestions contributed to the development of this report: Bill Woodwell, Bill Barnes, Chris Hoene, Donald Borut, Michael Pagano, Doug Peterson, David Brunori, and Susan Clarke. Thanks also to the U.S. Department of Housing and Urban Development for its support of NLC's research and analysis on the future of public finance.

Thanks to Leslie Goodwin for design and production work leading to the final document.

Special thanks to the members of the Municipalities in Transition Panel on Public Finance from 2001-2003 who received presentations based on this analysis, provided comments and suggestions, and for their commitment to addressing the challenges facing public finance.

Lee Wendell Loder, Councilmember, Birmingham, Alabama
Neil Giuliano, Former Mayor, Tempe, Arizona
Jim Dailey, Mayor, Little Rock, Arkansas
Ron Bates, Former Councilmember, Los Alamitos, California
Joyce Streator, Councilmember, Pasadena, California
Mark Linder, Assistant City Manger, San Jose, California
Del Borgsdorf, City Manager, San Jose, California
Aaron Azari, Councilmember, Arvada, Colorado
John Fischbach, City Manager, Fort Collins, Colorado
Steve Burkholder, Mayor, Lakewood, Colorado
John DeStefano, Mayor, New Haven, Connecticut
Glenda Hood, Florida Secretary of State and Former Mayor, Orlando, Florida
Felicia Moore, Councilmember, Atlanta, Georgia
Jackie Nytes, Councilmember, Indianapolis, Indiana
Shelley Miller, Mayor, Richmond, Indiana
Dee Vanderhoef, Councilmember, Iowa City, Iowa
Joe Pisciotte, former Councilmember, Wichita, Kansas
Jill Duson, Councilmember, Portland, Maine
Geoffrey Beckwith, Executive Director, Massachusetts Municipal Association
Brian Murphy, Councilmember, Cambridge, Massachusetts
Judith McNeeley, Director of Intergovernmental Relations, Detroit, Michigan
Harry Smith, Mayor, Greenwood, Mississippi
Lois Giess, Councilmember, Rochester, New York

Michael Coleman, Mayor, Columbus, Ohio
Joyce Orange, Vice Mayor, Vandalia, Ohio
Nancy Nathanson, Former Councilmember, Eugene, Oregon
G. Robert George, Councilmember, Charleston, South Carolina
Brenda Barger, Mayor, Watertown, South Dakota
Frank Sturzl, Executive Director, Texas Municipal League
Margaret Peterson, Councilmember, West Valley, Utah
Mark Jinks, Assistant City Manager, Alexandria, Virginia
Joe Brooks, former Councilmember, Richmond, Virginia
Steven Jeffrey, Executive Director, Vermont League of Cities and Towns
Stan Finkelstein, Executive Director, Association of Washington Cities
Larry Haler, Councilmember, Richland, Washington
Jim Haggerton, Councilmember, Tukwila, Washington

Foreword

The 21st century finds local and state governments in America struggling to meet the needs of the American people. Local and state governments' capacities to create opportunities for, and support, their residents are undermined by systemic, structural, and cyclical changes — systemic changes in the global economy, structural imbalances in annual budgets and in the funding streams that flow (or do not flow) between levels of government, and cyclical changes in economic conditions like that experienced from 2001-2004. At the same time, political attacks on government and tax policy have made it nearly impossible for a responsible and constructive discussion of policies and reforms needed to improve conditions for Americans. Amid these pressures, it is important to assess the future viability of state and local revenue systems to meet service demands that are, if anything, likely to increase in the future.

What is the future of the system of public finance in the United States? How do state and local governments fit into this system? Are state and local revenue systems becoming obsolete? These are the questions that the National League of Cities posed to Dr. Robert Tannenwald in 2001. NLC approached Tannenwald with these questions in the hopes of providing greater depth and understanding to a set of fiscal challenges that had been identified by NLC's members — city officials — through a series of discussions convened from 1997-2001.

In the fall of 1997, NLC established the Municipalities in Transition Program. The goal was — and is — to connect public policy and other discussions to the reality of what is happening in America's cities. The Program was initially comprised of one panel of city officials selected from across the nation to be broadly representative of cities overall. This panel's work from 1997-1998 looked at the wide range of factors influencing cities and towns. It guided the development of a report, *Major Factors Affecting America's Cities* (1998), based on detailed interviews with more than 70 elected officials and staff in the panel cities. All of the six major themes identified had implications for public finance — the growth of the "new economy," limitations on revenue capacity, the movement of people and businesses, suburbanization, educational challenges, and changing government roles.

In late 1999, NLC President and Wichita, Kansas Mayor Bob Knight asked the initial panel to focus its work on public finance. The deliberations of the "Public Finance Panel" in 2000 led to the production of a report, *Toward a System of Public Finance for the 21st Century: A Framework for Public Discussion* (2001). The report outlined a series of challenges facing

public finance, and municipal finance in particular, and called for a course of research and engagement to shed further light on these challenges. Among the challenges:

- The changing economy
  - The shift from a goods-based economy to one based more upon services and knowledge sectors, and the implications for tax bases and tax burdens;
  - The mobility of businesses and capital, and resulting interjurisdictional competition for economy activity; and,
  - Growth of tax-exempt properties
- Demographic changes
  - The aging of the population, the growth of immigrant populations, changing household composition, and residents with special service needs;
  - Rapid growth and development — urbanization and suburbanization; and,
  - Increasing mobility of people across jurisdictions.
- Intergovernmental and Regulatory Challenges
  - Continued imposition of unfunded mandates;
  - Federal preemption of local and state authority;
  - Deregulation of telecommunications electric industries; and,
  - Devolution of responsibilities without adequate funds.
- Political Challenges
  - Political pressure to limit government
  - Resistance to taxes and fees
  - Tax and expenditure limits on state and local governments

In 2001, NLC approached Robert Tannenwald to ask for his help in analyzing the extent of these challenges. Early drafts of this report were then presented at a Forum on the Future of Public Finance in the fall of 2001. The Forum included representatives from public interest groups (NLC, the National Governors Association, the National Conference of State Legislators, the Government Finance Officers Association), the federal government (U.S. Treasury, U.S. Senate Budge Committee, the White House Council of Economic Advisors), and other public finance experts from the Federal Reserve, bond rating agencies, and academia. The report was then revised in 2002 based upon the discussion at the Forum.

Over this same period, the U.S. economy underwent its first recession in nearly a decade, sending government revenues on a downward spiral and exacerbating many of the fiscal challenges identified by the panel, and illuminated through Tannenwald's research. In response, in 2003, the report was revised again and updated to reflect changing conditions and the availability of new data and information.

This report, therefore, represents the culmination of several years of research, deliberation, and engagement around the challenges facing local and state finance. NLC is grateful to Robert Tannenwald for his time, his excellent and painstaking research, and for his continued engagement with local officials to help them better understand the system in which they are operating. We hope that the readers of this report will take away the same messages that we do – that our system of public finance is in need of significant reform and that reform requires that we foster an environment for constructive discussions about the arrangements needed to meet the future needs of the American people.

Christopher W. Hoene
Manager, Research and the Municipalities in Transition Program
National League of Cities

Overview

Over the past three years, we public finance types have become used to widespread reports of declining or stagnant state revenues, spending cuts jeopardizing state and local programs alike, and compensating increases in local taxes. Although cyclical factors and the bursting of the stock market bubble may be mostly responsible, many tax analysts believe that long-term economic and technological developments also are partly to blame and will continue to constrain state and local revenue growth well into the foreseeable future.

In simple terms, we are changing what and how we produce and consume. As a result, state and local revenue systems are becoming increasingly "out of sync" with the economy's changing structure. The economic stocks and flows that these systems are designed to "meter" comprise a shrinking fraction of the nation's wealth and economic activity. According to some, this mismatch is so pervasive and persistent that it threatens to make current state and local tax systems obsolete.

This report discusses the impact on state and local revenues of four trends:

I) The shift in the nation's mix of production and consumption from goods to services;

2) The growing importance of intangible assets in generating output;

3) The proliferation of electronic commerce; and

4) The intensification of interjurisdictional competition.

I argue that, while the shift in the mix of consumption has significantly eroded revenue productivity, the impact of the shift in the mix of production has been less clear. I also make the case that economists and policymakers alike have underestimated the threat posed by the expanding role of intangible assets — i.e., the growth of the "knowledge-based" economy.

While obsolescence is a real concern, I have no good solutions to offer. Most plans to modernize state and local revenue systems would sacrifice important tax policy goals. In other words, no solution presents state and local policymakers with a clear win-win situation, in which they could halt or reverse the decline in the revenue productivity of their taxes without sacrificing autonomy, competitiveness, neutrality, or administrative simplicity.

That said, states and localities have an obligation to respond in thoughtful and creative ways to the trends outlined in this paper and to the challenges they pose for state and local revenue systems. The future of state and local government depends on it.

I. How Do State and Local Governments Raise Revenues?

Section Summary: *The combination of uncertain — and, in many cases, declining—flows of fiscal assistance from other levels of government and unstable "own-source" revenues is posing serious challenges for states and localities. At stake is their ability to collect the necessary revenues to meet a growing list of responsibilities in areas from homeland security and infrastructure to education and environmental protection.*

An analysis of the mix of the nation's subnational revenues reveals two reasons why state and local governments are so concerned about the long-run erosion of their tax capacity. First, both levels of government depend heavily on uncertain flows of fiscal assistance from a higher level of government. Second, many state and local governments lack a diverse mix of "own-source revenues" — i.e., taxes and user charges that they collect on their own authority.

Dependence on Intergovernmental Assistance

In FY2001, federal grants-in-aid accounted for 26 percent of state general revenues, about the same as in FY1977 (Figure 1). Turning to local governments, we see that they are even more dependent than their state counterparts on intergovernmental assistance, most of which comes to them from the states. In FY2001, grants from state governments accounted for 36 percent of local general revenues (Figure 2). The percentage of

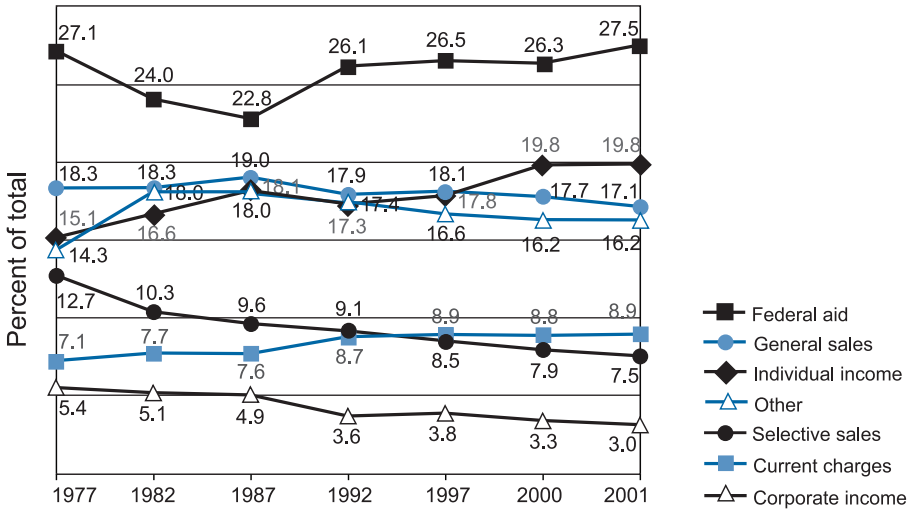


Figure 1:
The Mix of State General Revenues of the United States, 1977 to 2000

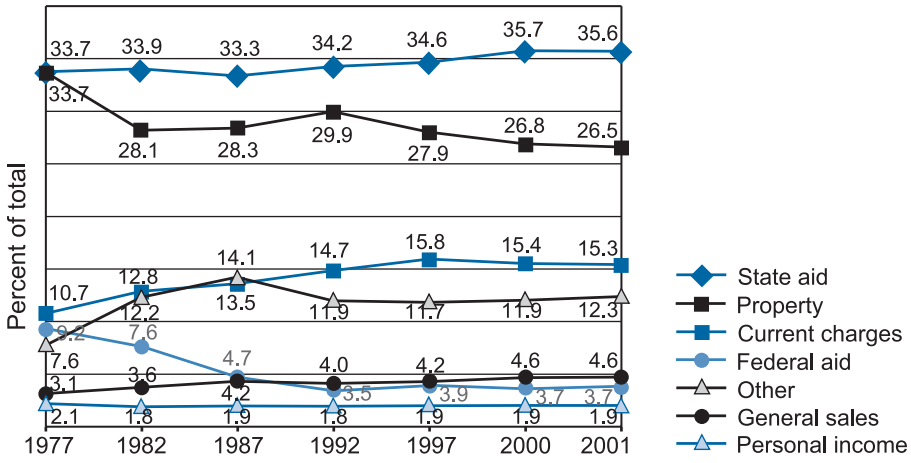
Note: The "Other" category consists of local government aid, property tax, motor vehicle license tax, other taxes and miscellaneous revenue.

Source: *U.S. Census Bureau, Census of Governments:* 1977, 1982, 1987, 1992, 1997, *State and Local Government Finances 2000.*

Figure 2
The Mix of Local General Revenues of the United States, 1977 to 2000

Note: The "Other" category consists of selective sales, corporate income, motor vehicle license tax, other taxes and miscellaneous revenue.

Source: *U.S. Census Bureau, Census of Governments: 1977, 1982, 1987, 1992, 1997, State and Local Government Finances 2000.*



school districts' general revenues coming from state aid is especially high, reaching 54 percent in FY1997 (Figure 3).

Trends in Federal Aid to States. Over the past four decades, the rate of growth and the composition of federal aid to states has varied considerably (Figure 4), making state fiscal policymakers wary of relying so heavily on it in the future. From 1960 through 1973, inflation-adjusted federal grants-in-aid increased by 293 percent, four times faster than inflation-adjusted gross domestic product. The fastest-growing component of federal aid was "other grants," consisting primarily of aid for education, employment and training, social services, and general government. Growth in revenue sharing was largely responsible for the 719-percent increase in this component during the 1960-1973 period.

In contrast, from 1973 to 1989, the federal government hardly increased intergovernmental assistance at all, primarily in response to widening budget deficits, the spread of "devolutionist" philosophy, and the nation's determination to enhance its military preparedness during the 1980s. Suffering sharp declines were "other grants," which plummeted as revenue sharing came to an end.

Since 1989, federal grants to the states have again grown faster than GDP. However, the Bush Administration's FY2004 budget forecasts that federal intergovernmental assistance will grow only about as fast as GDP through FY2006. Grants for capital investment are projected to decline, in inflation-adjusted terms, by eight percent.

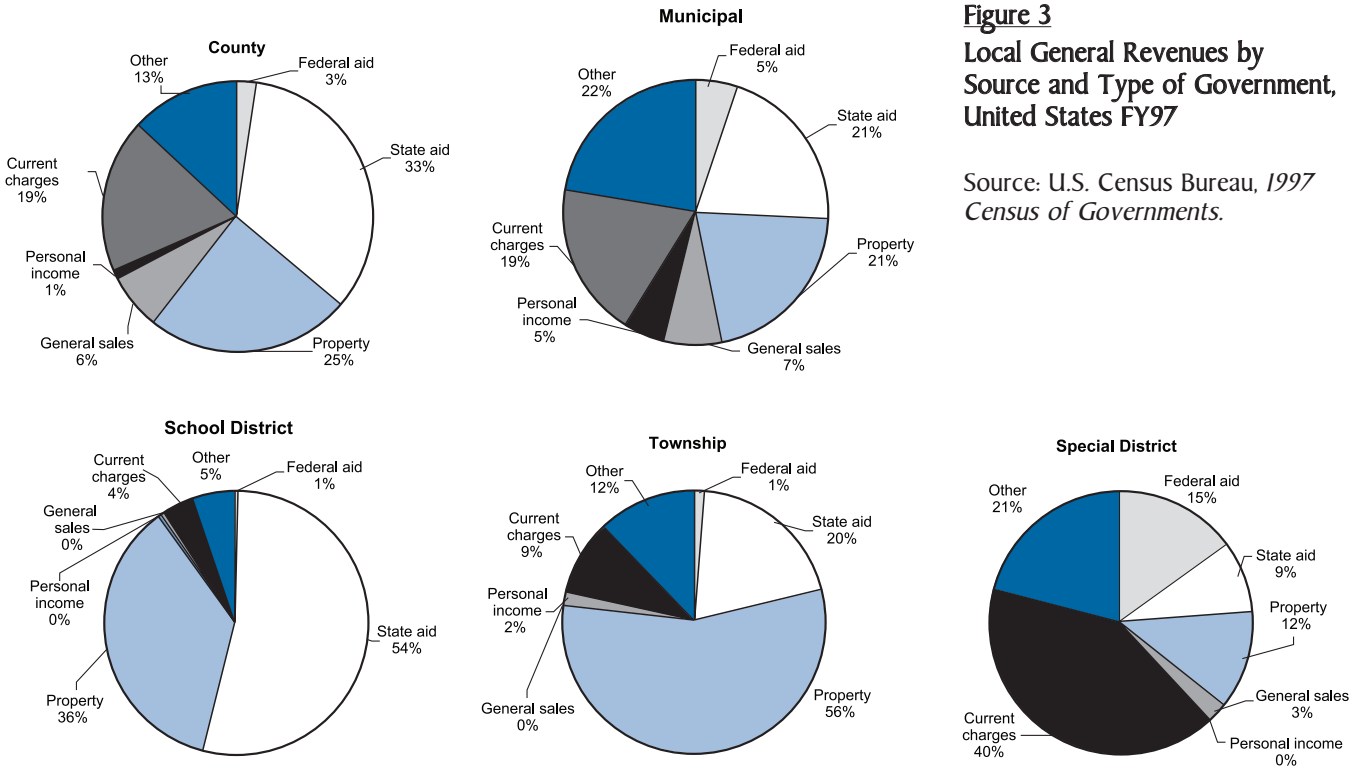


Figure 3
Local General Revenues by Source and Type of Government, United States FY97

Source: U.S. Census Bureau, *1997 Census of Governments.*

Trends in State Aid to Localities. Mirroring the trend in federal aid to states, state aid as a proportion of local general revenue remained fairly constant from FY1977 to FY1987 and exhibited a slowly rising trend from FY1987 to FY2000 (Figure 2). However, nationwide aggregate statistics hide wide interstate differences.

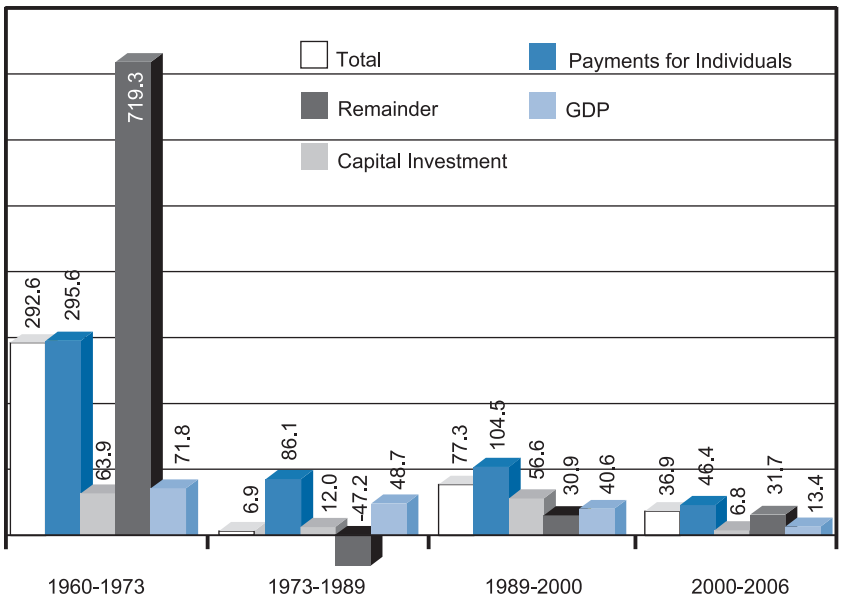


Figure 4
Percent Change in Inflation-Adjusted Federal Grants to State and Local Governments, 1960 to 2006

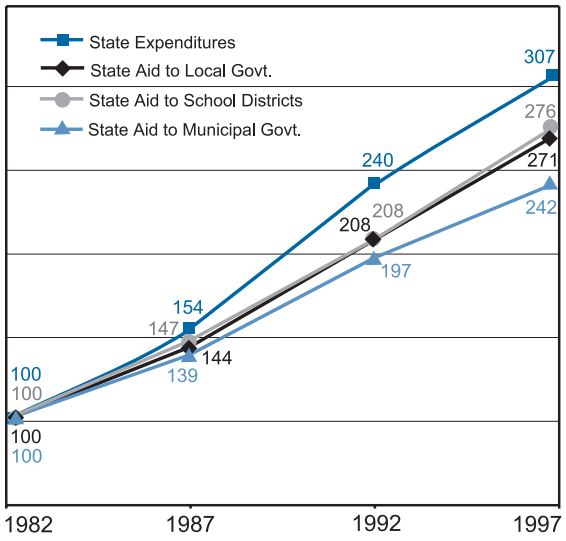
Note: 2003-2006 values of grants were estimated by the U.S. Office of Budget and Management; values of GDP were forecasted by Global Insight.

Sources: U.S. Office of Management and Budget, *Budget of the United States Government, FY 2004:* U.S. Bureau of Economic Analysis; Global Insight, Inc.

Local governments in some states have seen a steep decrease in the fraction of their general revenues supplied by state grants. Between 1977 and 1997, state aid as a percentage of local general revenues fell from 40 percent to 30 percent in New York, from 47 percent to 38 percent in North Carolina, from 36 percent to 28 percent in Maryland, and from 35 percent to 27 percent in Maine. Moreover, state aid to local governments has grown more slowly than state spending as a whole since 1982 (Figure 5). Consequently, many local officials are uncertain how much state assistance they will receive in the future.

Figure 5
State Aid and State General Expenditures Indexed to 1982 (1982=100)

Source: U.S. Bureau of the Census, *Census of Governments:* 1982, 1987, 1992, and 1997.



Lack of Diversity in Own-Source Revenues

State Own-Source Revenues. Apart from federal aid, states rely most heavily on the individual income tax and the general sales tax, each of which accounted for about a quarter of state general own-source revenues in FY2000.

Selective sales taxes — primarily taxes on the sale of tobacco products, alcoholic beverages, and motor fuels — accounted for 17 percent of states' own-source revenues in FY1977. However, these taxes have since declined in importance because Americans have become more fuel-efficient (despite the growing popularity of sport utility vehicles), have cut back on smoking, and have substituted beer and wine for hard liquor.[1] The states have responded to this decline (as well as to relatively sluggish growth in corporate income tax receipts) mainly by increasing their reliance on the personal income tax and current charges.

[1] Beer and wine are generally taxed at lower rates than hard liquor because they contain lower concentrations of alcohol.

With the general sales tax and personal income tax accounting for one-half of their general own-source revenues, the states are concerned about forces undermining the revenue productivity of both taxes. The states' concern has been magnified by the expanded fiscal responsibilities they have been asked to assume during the past two decades. Demand for state roads and bridges, prisons, higher education, and environmental protection has intensified. In addition, now that the federal government is preoccupied with combating terrorism, the states may have to shoulder even more responsibility for domestic governmental functions.

Adding to the challenges facing some states are pronounced imbalances in state revenue structures. For example:

- Five states — Alaska, Delaware, Montana, New Hampshire, and Oregon — lack a sales tax.
- Oregon derives almost 44 percent of its general own-source state revenues from the personal income tax.
- Nine states — Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming — impose no broad-based personal income tax.
- Washington collects 48 percent of its general own-source revenues from general sales taxation.

For states with such unbalanced revenue structures, erosion of a key tax base or constraints on the rate at which that base can be taxed pose an especially serious threat to long-run fiscal health.[2]

Local Own-Source Revenues. Local own-source revenues are even less diversified than those of the states. The property tax, the mainstay of local taxation, accounted for 45 percent of all local own-source general revenues in FY2000. The comparable percentage for user charges, the second most important instrument of local own-source funding, was only 26 percent.

In FY1977, local governments were even more reliant on the property tax than they are today. The "property tax revolt," epitomized by Proposition 13 in California and Proposition 2½ in Massachusetts, induced localities to substitute user charges for property taxes in their general own-source revenue mix. Local governments as a whole, and cities and towns in particular, also have increased their reliance on the sales tax, while income taxes have become an increasingly important revenue source for cities with populations exceeding 500,000.

However, since the property tax remains the backbone of local revenue systems, forces eroding its long-term revenue productivity continue to worry local policymakers.

2 Since such states choose to rely especially heavily on one tax, they presumably understand the tradeoffs entailed by such a tax structure. Economic and political constraints on how intensively they can levy their preferred tax worsen the tradeoffs that these states face between revenue productivity and other tax policy goals.

II. The Shift from Goods to Services

Section Summary: *The conventional wisdom about the impact of the shift to a service-based economy on state and local tax receipts is not necessarily right. The long-run decline in the revenue productivity of the sales tax, for example, can be explained by a variety of factors, including expanded sales tax exemptions, and not solely by a shift in consumption to tax-preferred services. Similarly, the increasing importance of services in production has not necessarily eroded either sales taxes or property taxes, suggesting that the shift from goods to services has not been as bad for states and localities as we commonly are led to believe.*

Today, the United States spends a much smaller fraction of its resources on producing goods and a much larger fraction on delivering private services than it did four decades ago. In 1960, 42 percent of U.S. wages and salaries were earned in the goods-producing sector (manufacturing, mining, construction, and agriculture). Forty-two years later, the share attributed to goods production had fallen to 22 percent. By contrast, the share of U.S. wages and salaries generated by the delivery of private services rose over this period from 16 percent to 38 percent.[3]

Also shifting away from goods and toward services in this period was the mix of personal consumption. In 1960, American households allocated 41 percent of their consumption dollars to services. By 2002, this percentage had risen to 59 percent.

Implications for the General Sales Tax

A number of tax policy analysts have argued that the shift from goods to services has seriously undermined the revenue productivity of state and local sales taxes. However, while the shift toward services in consumption has, indeed, had this effect, less widely understood is the offsetting effect of the shift toward services in production. Producers of goods and services pay sales taxes on intermediate purchases — that is, purchases of inputs. Many intermediate purchases of goods producers, however, have traditionally been sheltered from sales taxation, a privileged status not generally enjoyed by service providers. So, the shift in production from tax-sheltered to broadly taxable sectors has actually bolstered state and local sales tax bases.

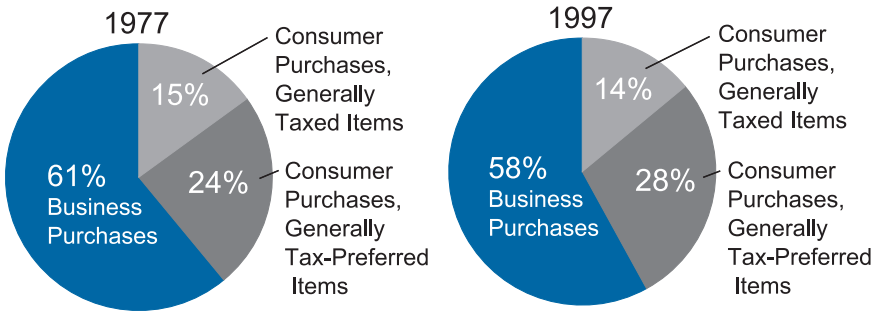
Let's probe this argument further by considering *all* of the various types of transactions that are potentially subject to general sales taxation — these are referred to as "total potentially taxable transactions" (Figure 6A). Such

3 The remainder of wages and salaries were generated by the provision of public services and the distribution of goods in the private sector.

Figure 6A
The Majority of Potentially Taxable Sales Are Purchases by Businesses

U.S. Bureau of Economic Analysis; U.S. Department of Commerce, Survey of Current Business: May 1984 and January 2001, Table 2

Figure 6B
Purchases by Consumers Include Both Generally Tax-Preferred and Generally Taxed Items



Note: Taxed items for consumer purchases consist of all goods except food consumed at home. Tax-preferred items consist of all services and goods consumed at home.

U.S. Bureau of Economic Analysis; U.S. Department of Commerce, *Survey of Current Business:* May 1984 and January 2001, Table 2

transactions consist of consumption by households and purchases by businesses. Note that the latter account for 60 percent of the total pie. Yet, because of data limitations, changes in this percentage over time have not been extensively analyzed.

Consumed items can be further classified into those that are usually exempt from taxation or are taxed at preferentially low rates ("tax-preferred" items) and those that are usually taxed without preferential treatment ("taxed" items) (Figure 6B). Tax-preferred items consist of food consumed at home, as well as services. Food consumed at home is taxed preferentially in the majority of states because it is considered a necessity.[4] As for services, these are generally taxed only to a limited extent for administrative and political reasons.

When state sales taxes were first implemented during the 1930s, services were considered too difficult to tax. Since delivery of services did not require records of inventory or production and was undertaken primarily by very small firms with minimal record-keeping capacity, the obstacles to enforcing a tax on services were considered prohibitive. In addition, professional services, such as those provided by lawyers, accountants, engineers, and consultants, were considered politically too difficult to tax because professional organizations wielded (and still wield) considerable political influence.

4 According to the Federation of Tax Administrators, 32 of the 45 states and the District of Columbia that impose a general sales tax either exempt food at home or subject it to a relatively low statutory rate. See www.taxadmin.org/fta/rate/sales.html.

Since services accounted for a much smaller fraction of the economy relative to goods 70 years ago, the revenue consequences of excluding services from taxable sales were not considered significant. Of course, these consequences have become much more serious as the importance of professional and business services to the economy has grown (Brunori 2001). However, the political and administrative obstacles to taxing services remain. Attempts to do so by both Florida (in 1987) and Massachusetts (in 1991) were defeated by vigorous lobbying on the part of interest groups representing those service providers who would have been most adversely affected. As of 1996, only three states — Hawaii, Washington, and South Dakota — taxed a wide array of services (Federation of Tax Administrators 1997).

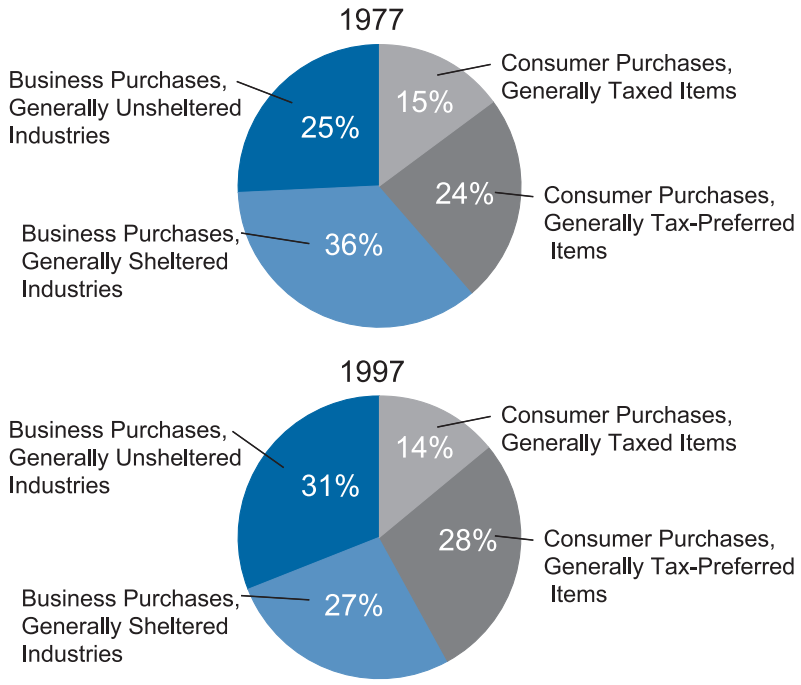


Figure 6C
The Percentage of Purchases by Businesses Made by Firms in Generally Unsheltered Industries Has Grown

Note: Taxed items for consumer purchases consist of all goods except food consumed at home. Tax-preferred items consist of all services and goods consumed at home.

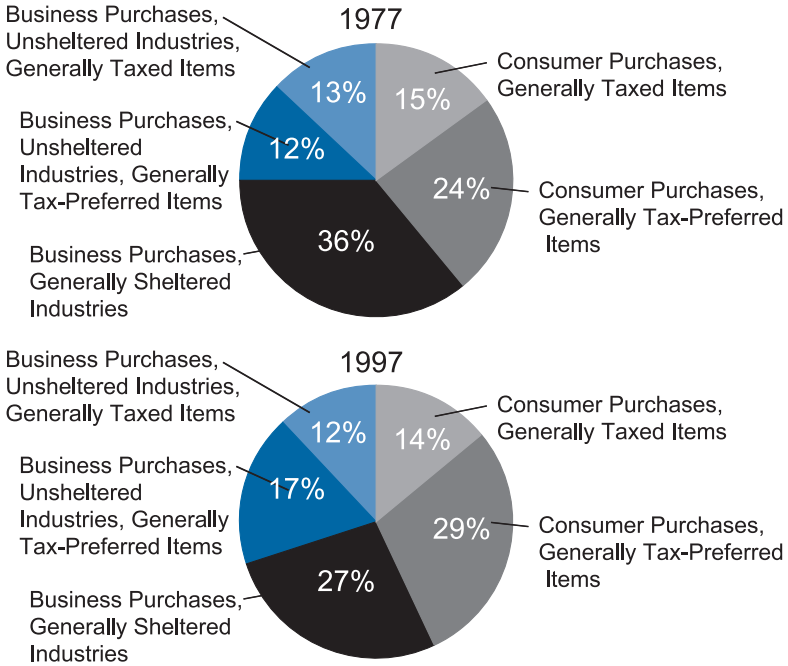
Unsheltered industries consist of Construction, Transportation and Warehousing, Communications, Private Utilities, Wholesale and Retail Trade, Finance and Insurance, Real Estate, and Services except Health, Education, Social Services and Nonprofit Organizations.

Sheltered industries consist of Agriculture, Mining, Manufacturing, Health Services, Educational Services, Social Services, Nonprofit Organizations, and Federal, State and Local Governments.

U.S. Bureau of Economic Analysis; U.S. Department of Commerce, *Survey of Current Business:* May 1984 and January 2001, Table 2

Like consumer purchases, purchases by businesses also can be classified into a tax-preferred component (services and purchases of structures) and a taxed component (purchases of intermediate goods, machinery, and equipment) (Figure 6C). It is important to note, however, that purchases of taxed items by firms in certain "sheltered" industries (manufacturing, mining, and agriculture) are generally exempt from taxation. These firms have been sheltered from sales taxation because, as exporters of goods to other states, they import revenues into a region and, therefore, are thought to drive its economic growth. Also falling into the tax-preferred category, of course, are purchases by governmental agencies and most nonprofit organizations.

Figure 6D
The Percentage of Purchases by Businesses Made by Firms in Generally Unsheltered Industries That Are Generally Tax-Preferred Items Has Grown



Note: Taxed items for consumer purchases consist of all goods except food consumed at home. Tax-preferred items consist of all services and goods consumed at home.

Unsheltered industries consist of Construction, Transportation and Warehousing, Communications, Private Utilities, Wholesale and Retail Trade, Finance and Insurance, Real Estate, and Services except Health, Education, Social Services and Nonprofit Organizations.

Sheltered industries consist of Agriculture, Mining, Manufacturing, Health Services, Educational Services, Social Services, Nonprofit Organizations, and Federal, State and Local Governments.

U.S. Bureau of Economic Analysis; U.S. Department of Commerce, *Survey of Current Business:* May 1984 and January 2001, Table 2

Therefore, we see that of all potentially taxable transactions, only two categories of transactions —- purchases of items of taxed consumption and purchases of taxed items by unsheltered firms —- actually enter into the sales tax base (Figure 6D). So, in order to evaluate the impact of shifts in the composition of consumption and production on the revenue productivity of sales taxes, we must analyze how these shifts have affected the size of these two taxable slices of the total transactions pie.

Impact of Shifts in the Mix of Consumption. Services' growing share of consumption has been identified as a principal cause of the sales tax's declining revenue productivity (Bruce and Fox 2000, 2001; National Conference of State Legislatures and National Governors' Association 1993). The tax's diminishing effectiveness as a revenue raiser is reflected in the long-term decline in the ratio of taxable sales (as reflected in actual sales tax collections and statutory sales tax rates) to gross state product (GSP) in states that impose the tax. From fiscal year 1977 (FY1977) to FY1992, this ratio fell by about 5 percentage points, from 39 percent to 34 percent. By FY1997, it had risen slightly to just over 35 percent. It stayed in the vicinity of 35 percent through FY2001 (Figure 7).[5]

5 Statutory sales tax rates were taken from U.S. Advisory Commission on Intergovernmental Relations (1988). General sales tax collections were taken from U.S. Census Bureau, *Governmental Finances*, selected years. For each state with a general sales tax, the author divided the statutory rate into sales tax collections to obtain an estimate of taxable sales in that state.

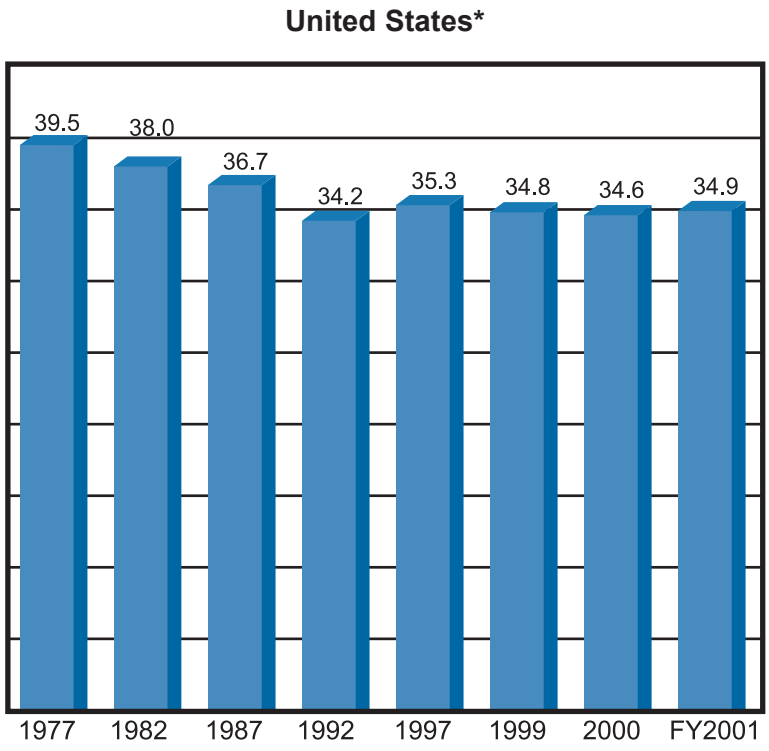


Figure 7
Taxable Sales as a Percentage of GSP

Sources: Author's Calculations; U.S. Census Bureau, *Government Finances*, 1977, 1982, 1987, 1992, 1997 1999, 2000; State Government Finances 2000; Bureau of Economic Analysis, Regional Accounts Data for GSP; Government of District of Columbia, *Tax Rates and Tax Burdens in the District of Columbia: A Nationwide Comparison*, 1992, 1997, 1999, 2000 and 2001; Government of District of Columbia, *DC Tax Facts, Fiscal Years 2000, 2001 and 2002*; Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, 1988 Edition, Volume I, Table 23.

* Note: For each year and for each state, the statutory state tax rate (expressed as a fraction), was divided into state sales tax collections to arrive at an estimate of taxable sales. Taxable Sales were aggregated across all states with salestaxes, as were GSP totals for thosestates. Aggregate taxable sales was then divided by aggregate GSP (stateswithout sales tax excluded).

While this explanation is plausible, the long-run decline in the revenue productivity of the sales tax also can be explained in other ways. For example, states may have gradually expanded sales tax exemptions to transactions that are not traditionally tax-preferred, or to purchases by businesses other than those in traditionally sheltered industries. In characterizing state and local sales tax policy in recent years, Fox (1998, pp. 42-43) has noted, "The aggregate effect of actual legislative decisions... appears to be a narrowing of the [sales tax] base, thereby making the sales tax a less productive revenue instrument."

The ratio's increase from 1992 to 1997 and its subsequent stability pose problems for the "growing importance of services" theory. They could be explained away by cyclical influences. According to this argument, taxed consumption is more procyclical than tax-preferred consumption. From the early 1990s until early-2001, the economy enjoyed the longest expansion in postwar history. Responding in typical procyclical fashion, sales of taxed items grew more rapidly than gross domestic product (GDP). This cyclical surge, so the argument goes, more than offset the negative impact of the secular shift in consumption toward services.

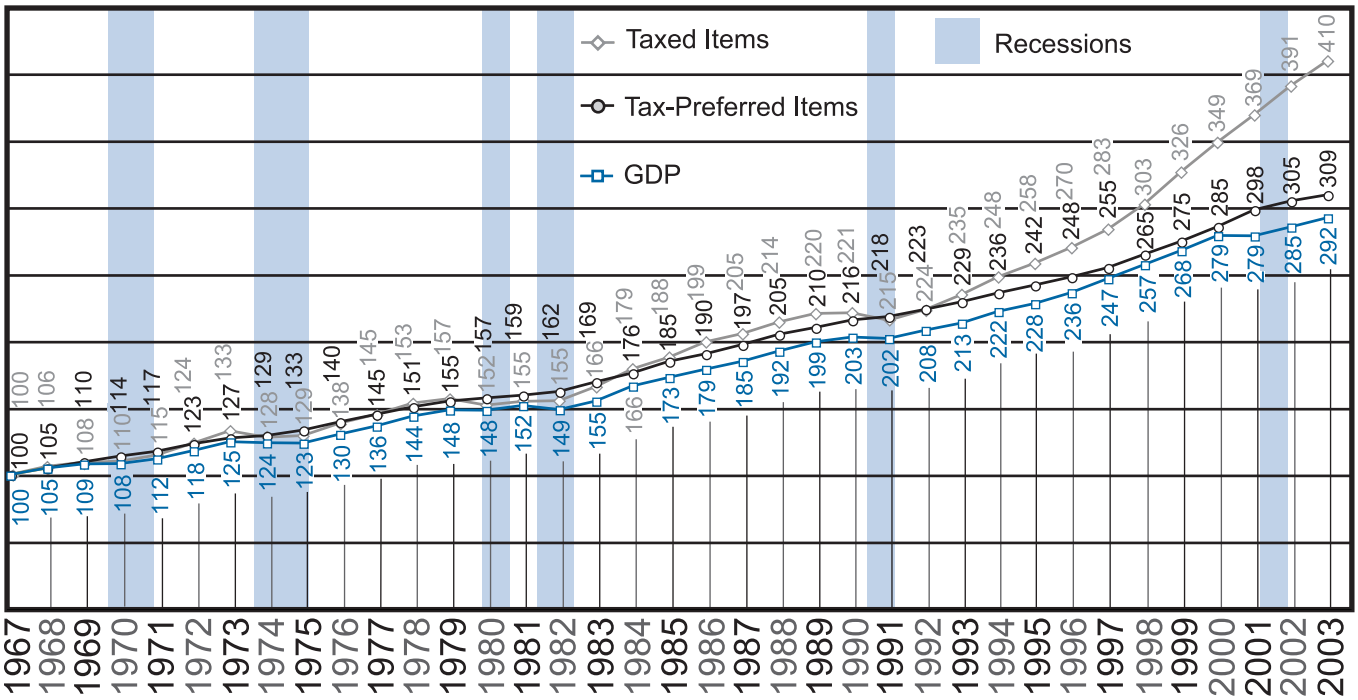


Figure 8A
Indices of Taxed and Tax-Preferred Consumption and GDP, 1967 to 2000, Chain-Weighted 1996 Dollars (1967=100)

Note: 2003 data based on three quarters. Taxed items consist of all goods except food consumed at home. Tax-preferred items consist of all services and food consumed at home. Gray shaded areas are periods of recessions.

Source: U.S. Bureau of Economic Analysis.

Indeed, as shown in Figure 8A, over the past 35 years, taxed consumption has been more pro-cyclical than tax-preferred consumption. The figure plots indices of inflation-adjusted consumption of goods that are generally taxed (all except food consumed at home), consumption of items generally tax-preferred (services and food consumed at home), and GDP. Growth in taxed consumption generally outstrips its tax-preferred counterpart during expansions. Just prior to the onset of a recession, however, rising interest rates typically dampen purchases of generally taxed items (especially large consumer durables, like autos, fridges, stoves, and furniture). By contrast, growth in tax-preferred items has been much steadier and less heavily influenced by general economic conditions.[6]

However, this cyclical pattern has not emerged during the past three years. Growth in generally taxed consumption has been extremely strong over the past decade, during boom or bust, and much stronger than growth in either tax-preferred consumption or GDP. One could argue that highly expansionary monetary and fiscal policy account for this unusually a-cyclical behavior. Still the robust growth in sales of taxed items over such a long time period of time strains the theory that the shift to services is enervating the sales tax.

6 Figures 8A and 8B plot indices of taxed consumption, tax-preferred consumption, and GDP, calibrated to equal 100 in 1967. Thus, an index of 1000 indicates a ten-fold growth since 1967. If the space between two lines widens, the variable represented by the upper line is growing faster than the variable represented by the lower line. If the space between two lines narrows, the opposite is true. When two lines move roughly parallel to each other, the variables represented are growing roughly at the same rate.

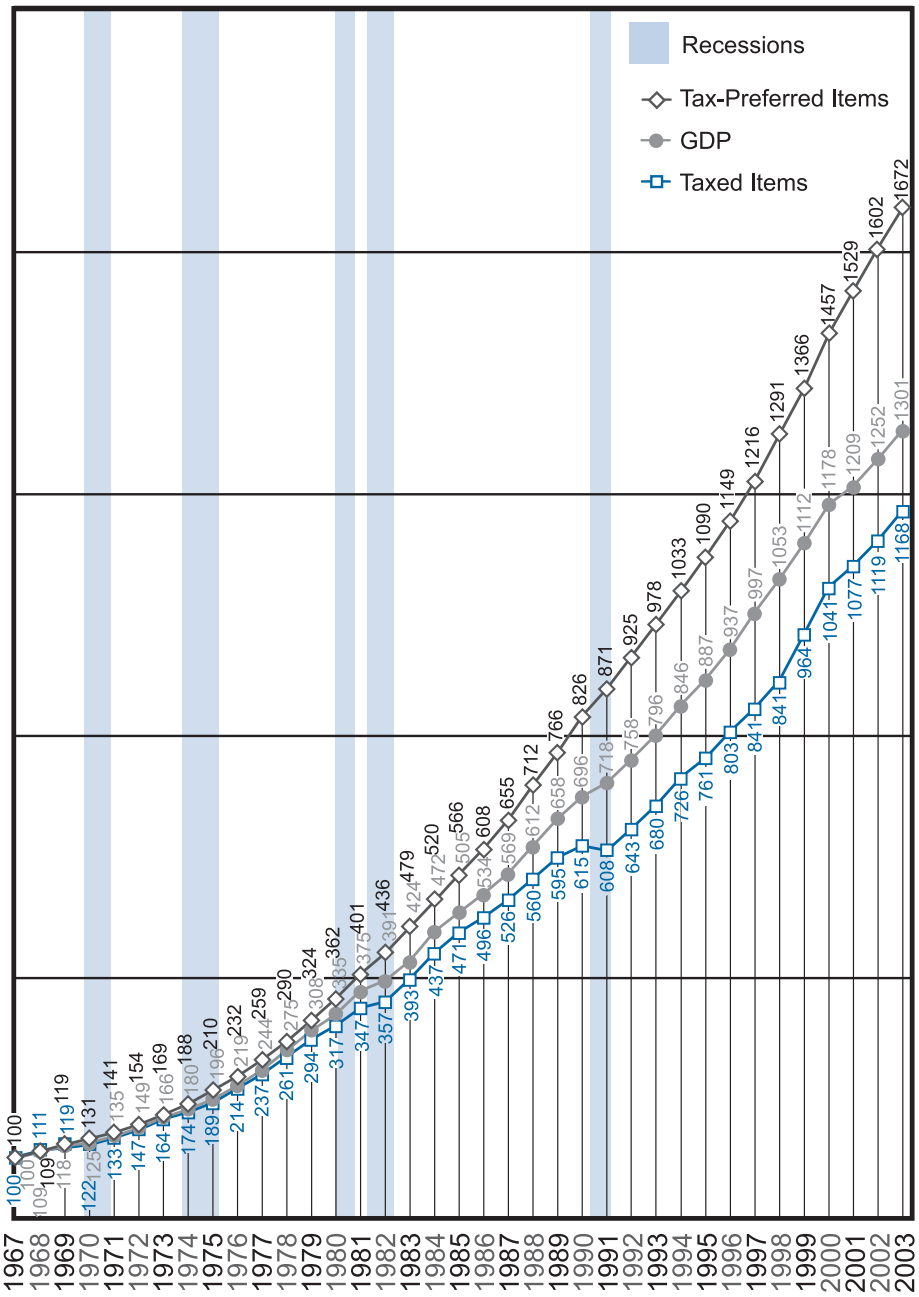


Figure 8B
Deflators for Consumption of Taxed and Tax-Preferred Items, 1967 to 2000 (1967=1)

Note: Taxed items consist of all goods except food consumed at home. Tax-preferred items consist of all services and food consumed at home. Gray shaded areas are periods of recessions.

Source: U.S. Bureau of Economic Analysis.

Figure 8A shows that in recent years the mix of consumption measured in constant dollars has tilted away from tax-preferred items, not the other way around. In current dollars, however, tax-preferred consumption has grown much more rapidly than taxed consumption, as shown by the widening gap between the broken line and gray line in Figure 8b. Simply put, we spend more of each dollar on services because goods have become so inexpensive, not because our appetite for them has weakened. Yet, note

how the lines representing GDP and taxed items have moved roughly parallel to each other since the end of the recession in the early 1990s. This indicates that growth in generally taxed items has kept pace with growth in GDP. This is probably the most important reason why the ratio of the sales tax base to GSP displayed in Figure 7 has been so stable over the past decade.

Moreover, it is not a given that the taxed sales/GSP ratio will continue to decline in the future. One reason is food consumption. We have seen a secular as well as a cyclical decline in the share of the consumption of goods accounted for by food consumed at home. Consumption of this tax-preferred item as a percentage of all consumption goods has declined continuously for four decades and fell by six percentage points between 1977 and 1997. Consequently, although services' share of consumption rose by 12.5 percentage points over the same 20-year interval, taxable consumption's share of total consumption fell by only six percentage points.[7] Perhaps households will continue to substitute taxed goods for food consumed at home in their mix of consumption goods.

7 As shown in Figure 6D, in 1977 consumption's share of total taxable transactions was 39 percent, while the share accounted for by consumption of taxed items was 15 percent. 15 percent / 39 percent equals 0.385. In 1997, the comparable ratio was 14 percent/ 43 percent, which equals 0.326. The difference between the two ratios is 0.385 – 0.326, or 0.06 (0.059).

Furthermore, will the price level of tax-preferred items continue to grow twice as fast as that of taxed items, like it has since 1967? Probably not indefinitely.

Many types of taxable goods have become less expensive because their production has shifted to overseas locations, where labor is relatively inexpensive. Furthermore, technological innovation has enhanced productivity and, therefore, reduced unit labor costs in the United States. The gap between U.S. and foreign labor costs probably will continue for a long time, especially given the large pool of extremely inexpensive labor in China.

However, it is likely that expectations and wage demands of foreign workers will eventually rise, causing the gap to stabilize or even close. At the same time, technological innovation is unlikely to enable indefinite reductions in the cost of producing taxed goods. Furthermore, improved cost management may slow inflation in key service industries where price rises have been especially steep, such as in medical care. When considered as a whole, these future trends could well narrow the gap in price inflation between taxed and tax-preferred items and arrest the decline in the contribution of taxable sales to the state revenue mix.

Impact of Shifts in the Mix of Production. While the shift in consumption from goods to services may have narrowed sales tax bases somewhat, the shift in production from goods to services might have broadened them. Unsheltered industries now produce a larger share of the nation's output than they did 25 years ago. As a result, they also account for a larger share

of potentially taxable purchases. As shown in Figure 6C, the share of total such purchases accounted for by unsheltered industries grew from 25 percent to 31 percent between 1977 and 1997.[8] At the same time the share of potentially taxable purchases accounted for by sheltered industries declined from 36 percent to 27 percent.

However, the mix of purchases made by unsheltered industries also changed over this 20-year period, with the share of these purchases accounted for by taxed items falling sharply[9] In other words, firms in unsheltered industries, especially services, have increased their reliance on tax-preferred inputs, such as purchases of services. This shift in the mix of purchases by unsheltered industries offset unsheltered industries' growing share of business purchases, reducing the share of total potential transactions accounted for by taxed items purchased by unsheltered industries from 13 percent to 12 percent.

In sum, between 1977 and 1997 the shift from goods to services can be parsed into at least three component trends. Two of them reduced the ratio of generally taxed to potentially taxable transactions. These were the increasing share of tax-preferred purchases in the mix of consumption and the increasing share of tax-preferred items in the mix of inputs purchased by unsheltered industries. By contrast, one component trend, the increasing share of intermediate purchases accounted for by unsheltered industries, worked the other way, actually bolstering the sales tax base. The net effect of these three trends can be seen by comparing the size of the slice of each pie in Figure 6b — the percentage of total potentially taxable transactions that fall within taxed categories fell by only 2 percentage points, from 28 percent to 26 percent. This fairly small reduction seems less problematic than is commonly believed.

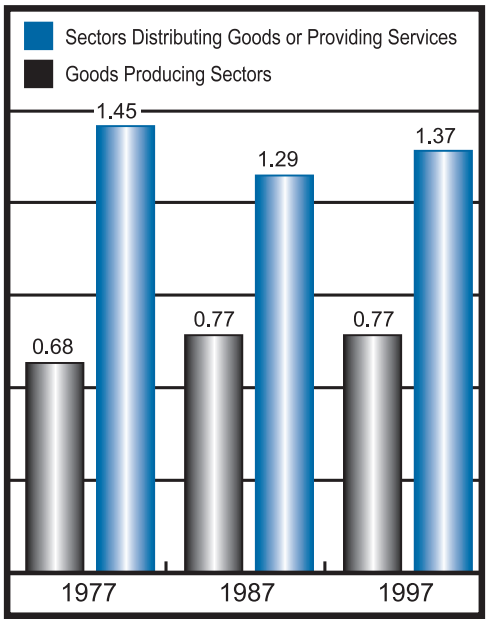
Implications for the Property Tax

In the same way that the increasing importance of services in production has not necessarily eroded sales tax bases, it also has not necessarily eroded property taxes. Once again, the conventional wisdom would be that property tax bases would have to decline given the shift from goods to services. After all, the property tax is a tax on physical assets, and goods-producing sectors, such as manufacturing, mining, and agriculture, are relatively intensive in the two types of assets generally taxed under the nonresidential property tax: realty (land and buildings) and personalty (machinery, equipment, and inventories). It would be easy, therefore, to assume that a shift in the mix of production away from goods would slow growth in the value of taxable property, diminishing the revenue productivity of the property tax.

8 Figure 6D shows that the share of potentially taxable business transactions accounted for by unsheltered industries rose from 41 percent to 53 percent. In 1977, unsheltered industries accounted for 25 percent of total transactions, while all industries accounted for 61 percent. 25 percent/61 percent equals 0.41. In 1997, the comparable percentage was 30 percent/57 percent, or 0.53.

9 As shown in Figure 6D, in 1977 taxed items accounted for 13 percent/ 25 percent, or 0.52, of purchases by unsheltered industries. By 1997 the comparable ratio had fallen to 12 percent/30 percent, or 0.40.

Figure 9
Ratio of Realty to Personalty for Goods-Producing Sectors and Other Sectors, 1977 to 1997



Note: Goods-producing sectors are agriculture, mining, construction, and manufacturing.

Sources: U.S. Bureau of Economic Analysis; U.S. Internal Revenue Service, *Statistics of Income — Corporate Income Tax Returns*, 1977, 1987 and 1997.

Yet, as Brunori (2001, p. 130) has observed, "In recent years, the trend has been to eliminate or dramatically reduce taxes on businesses' tangible personal property." As a result, the property tax in the United States increasingly has become a tax on realty (Youngman 1998), while firms producing goods, on the whole, have a relatively low ratio of realty to personalty (Figure 9). One need only gaze at the skyline of a major city, with its high-rise office buildings housing professional service firms, to see how the growth of services can bolster a municipality's property tax base, offsetting the losses suffered from factory closings and conversions. Indeed, the nationwide ratio of realty to personalty may have risen or at least remained constant during the last two decades, increasing or leaving unchanged the portion of tangible business property that local governments tax most intensively.[10]

For a clearer sense of historical trends in the realty/personalty ratio, we can look at the nationwide inventory and capital stock data published by the U.S. Bureau of Economic Analysis and selected balance sheet data from corporate tax returns compiled by the U.S. Internal Revenue Service. A proxy for realty, the ratio's numerator, is the value of land and structures in the private sector. The proxy for personalty, the denominator, is the sum of private inventories and machinery and equipment.[11] Estimated in this manner, the ratio of realty to personalty fell between 1977 and 1999 from 1.19 to 1.18, essentially no change (Figure 10).[12]

10 See Netzer (2003) for further discussion of the durability of the local property tax.

11 The numbers do not add up because of rounding.

12 The total values of structures, machinery and equipment, and inventories were taken directly from the public web site of the U.S. Bureau of Economic Analysis (BEA), www.bea.gov. The total value of land was estimated in the following manner: 1) The values of land and of depreciable assets reported by corporations filing active U.S. corporate income tax returns (Form 1120) were compiled for each of nine major industrial divisions. These data are presented in the U.S. Internal Revenue *Service's Statistics of Income — Corporate Income Tax Returns* (1977, 1987, 1997). The ratio of these two values was computed for each industrial division for each year. Values of this ratio for 1999 were assumed to be identical to those for 1997. It was then assumed that, for each industrial division, the value of this ratio was the same as the ratio of land to the sum of the stocks of structures and machinery and equipment reported by the BEA.

The stability of this ratio reflects the interplay of several offsetting trends. On the one hand, the value of tangible business property grew slightly faster in those sectors that are most intensive in realty, and the percentage of tangible business property accounted for by inventories declined in all sectors. On the other hand, the percentage of tangible business property comprising machinery and equipment increased in most sectors.

While these various trends may have had a neutral impact nationwide, the shift away from goods production has indeed contributed to a sharp reduction in the property tax capacity of some local jurisdictions. In particular, those cities that have lost much of their manufacturing base and have not been able to replace it with firms in rapidly growing service industries have experienced considerable fiscal stress. Such cities have lost manufacturing jobs not only because of the shift in production away from goods, but also because they have had difficulty competing with suburbs and other cities for those factories that remain.

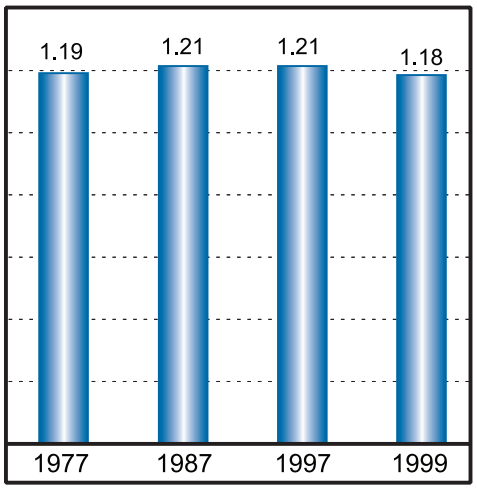


Figure 10
The Ratio of Realty to Personalty, 1977 to 1999

Note: Realty consists of land and structures, and personalty consists of equipment and inventories. The value of land was estimated by multiplying the ratio of land to depreciable assets from the U.S. corporate income tax statistics to the sum of equipment and structures from the Bureau of Economic Analysis, for each industrial sector. 1997 ratios were used to estimate the value of land for 1999.

Sources: U.S. Bureau of Economic Analysis; U.S. Internal Revenue Service, *Statistics of Income — Corporate Income Tax Returns*, 1977, 1987 and 1997.

III. The Increasing Importance of Intangible Assets

Section Summary: *Intangible assets are driving economic growth across all industry sectors. Because sales taxes are not designed to "meter" flows generated by intangible assets, the ascendancy of these assets is contributing to a long-term decline in the ratio of the sales tax base to private sector GDP. In the same way, the shift in producers' asset mix toward intangible property has slowed growth in the property tax base considerably.*

The preceding section presents evidence that the ratio of generally taxed sales to total potentially taxable sales has fallen only slightly since 1977. Similarly, the ratio of generally taxed property — realty — to total tangible

Table 1

Components of Potentially Taxable Transactions as a Percent of Gross Domestic Product Generated in the Private Sector, 1977 to 1997

		1977	1987	1997
1	Consumer Purchases	79.1	82.9	81.0
2	Taxed Items	30.7	29.5	26.3
3	Tax-Preferred Items	48.4	53.5	54.6
4	Business Purchases — Sheltered Industries	71.0	55.3	51.5
5	Intermediate Purchases	65.3	51.4	47.1
6	Machinery and Equipment	4.0	2.9	3.3
7	Structures	1.7	1.0	1.1
8	Business Purchases — Unsheltered Industries	47.3	51.9	56.2
9	Intermediate Purchases	39.2	42.1	46.4
10	Taxed Items	17.4	15.2	13.9
11	Tax-Preferred Items	21.8	26.9	32.5
12	Machinery and Equipment	5.4	6.2	7.3
13	Structures	2.7	3.6	2.6
14	Total Potentially Taxable Transactions	197.4	190.2	188.7
15	Taxed Consumption and Taxed Business Purchases (line 2 + line 10 + line 12)	53.5	50.9	47.4
		1977	**1987**	**1997**
1	Consumer Purchases	79.1	82.9	81.0
2	Intermediate Purchases	104.5	93.5	93.5
3	Machinery and Equipment	9.4	9.1	10.5
4	Structures	4.4	4.6	3.7

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, May 1984, April 1992, and January 2001.

property has remained unchanged. How, then, can we explain why the ratio of potentially taxable sales to Gross Domestic Product (GDP), as well as the ratio of total tangible property to GDP, have fallen markedly? In this section, I argue that these falling ratios are symptoms of the growing importance of intangible assets in generating value-added.

From 1977 to 1999, the ratio of potentially taxable sales to private sector GDP fell by nine percentage points, and the ratio of taxed transactions to private sector GDP fell by six percentage points (Table 1).[13] These falling ratios are dangerous warning signs that state and local officials should heed if the demand for state and local public services rises with private sector GDP.

The component of potentially taxable transactions that declined the most relative to private sector GDP over the 1977–1999 period was intermediate purchases. This decline reflects a shift in production to unsheltered industries from sheltered industries, which generally have a high ratio of intermediate purchases to output. As this shift has taken place, overall production has become less "intensive" in intermediate purchases, a rich source of transactions potentially subject to sales taxation.

The most plausible explanation for the declining ratio of intermediate purchases to private sector GDP is the growing importance of intangible assets (such as patents, databases, software, formulas, and trademarks) in the nation's mix of business assets. In 1977, the ratio of intangible to tangible assets was less than 0.01; 20 years later, it was 0.15 (Figure 11).

Only part of this shift can be attributed to the shift in the composition of output away from goods. Although the largest absolute increase between 1977 and 1997 occurred in the services sector (from 0.02 to 0.25), the ratio of intangibles to tangibles also rose sharply in most other industrial sectors, including those producing goods. For example, the ratio of intangibles to tangibles in manufacturing rose from less than 0.01 to 0.18, almost the same increase as the ratio in finance, insurance, and real estate. Therefore, we can see that the growth of "knowledge-based" production has not been confined to the economy's fastest-growing sectors.

If intangible assets are generating an increasing share of private sector GDP over time, then broadening the sales tax base to include services will not necessarily arrest the long-term decline in the ratio of the sales tax base to private sector GDP. Even if all potentially taxable transactions were taxed, the ratio of taxed transactions to private sector GDP still would continue its long-run decline. The reason: sales taxes are designed to "meter" only the consumption of goods and services obtained through market

13 As an alternative method of estimating the nationwide ratio of realty to personalty, the author used data on inventories, depreciable assets, and land from the U.S. Internal Revenue Service's Statistics of Income—Corporate Income Tax Returns for corporations. The ratio of machinery and equipment to total depreciable assets for each industrial division was assumed to be the same as that reported in data provided by the U.S. Bureau of Economic Analysis. According to this method, the nationwide ratio of realty to personalty rose from 1.06 in 1977 to 1.14 in 1997.

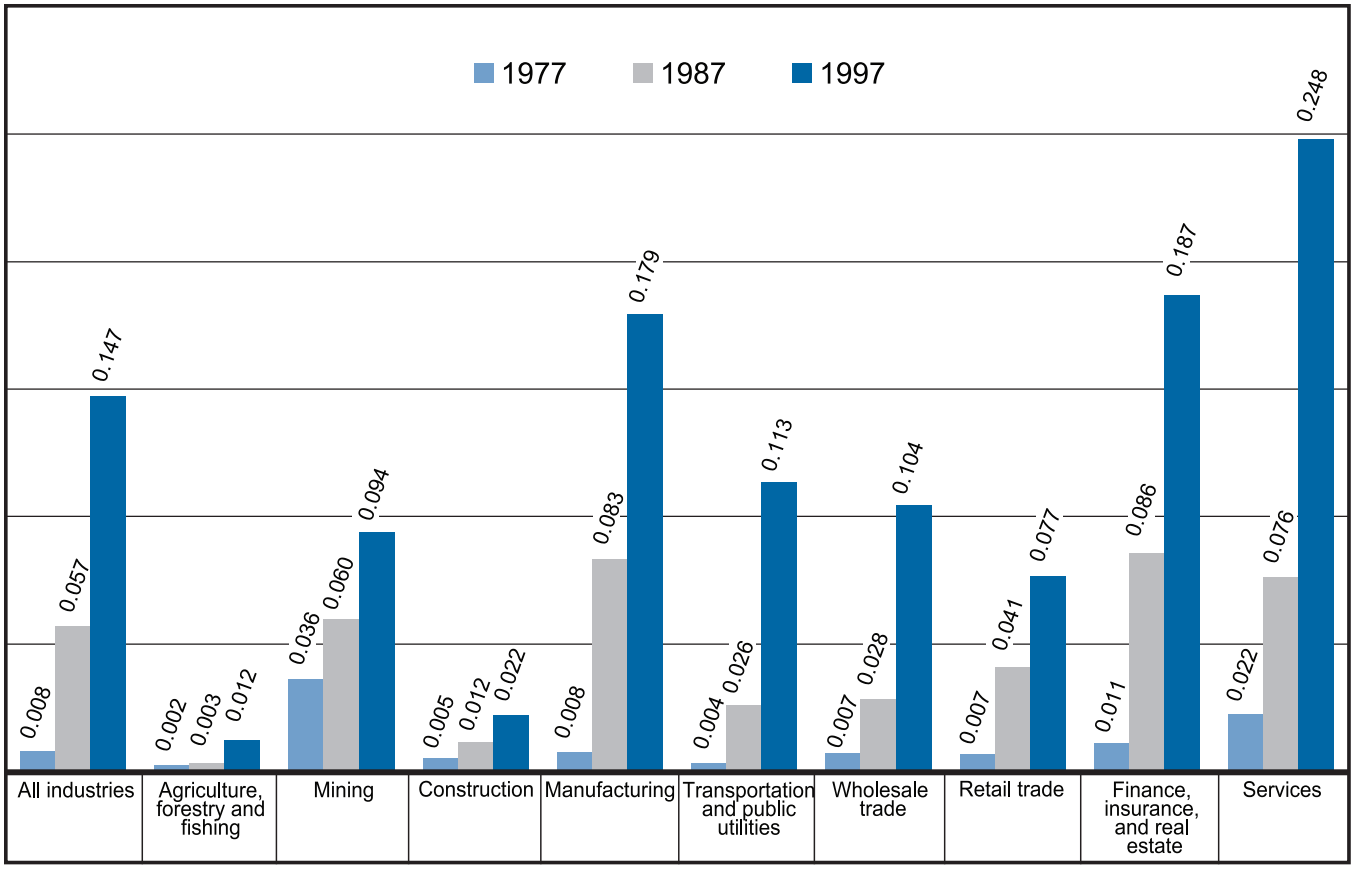


Figure II
Growth in the Ratio of Intangible Assets, 1977 to 1997

Sources: U.S. Internal Revenue Service, *Statistics of Income — Corporate Income Tax Returns,* 1977, 1987 and 1997.

transactions, purchases of machinery and equipment, and intermediate purchases, not flows generated by intangible property.

Similarly, if the past is any indication of the future, the ratio of the property tax base to private-sector GDP would continue to shrink absent the inclusion of intangible assets in its base. Because intangible assets are so difficult to value and to locate geographically, most states do not subject them to property taxation (Youngman 1998). Partially as a result, while the nationwide ratio of realty to personalty may have been stable between 1977 and 1997, the ratio of the value of realty nationwide to GDP fell sharply, from 0.81 to 0.69. The most plausible explanation for this decline is that the shift in producers' asset mix toward intangibles has slowed growth in the property tax base considerably.

IV. The Rise of Electronic Commerce

Section Summary: *The tremendous growth of electronic commerce poses daunting challenges for local, state, and national policymakers seeking to ensure an equitable and effective tax system. A chief concern is the effect of untaxed remote sales on state and local sales tax bases, although the effects of e-commerce expansion on sales tax revenues are highly uncertain. An even thornier issue is states' ability to tax the income of corporations engaged in e-commerce.*

According to projections by Forrester Research, Inc. (as reported in Bruce and Fox 2001), the value of taxable sales conducted via e-commerce will mushroom from $754 billion in 1999 to $1.91 trillion in 2003. Of the 2003 amount, all but $127 billion will consist of business-to-business transactions. Other estimates of the value of business-to-business e-commerce in 2003 range from $634 billion to $2.94 trillion (Fraumeni 2001). According to Bruce and Fox, Forrester Research, Inc. projects that by 2011, the total value of e-commerce will rise to $6.09 trillion. Of this amount, all but $304 billion will come from business-to-business transactions.

Implications for the Sales Tax

The potential erosion of sales tax bases by the expansion of e-commerce is one of the most salient and controversial issues in public finance today. Electronic transactions — and, for that matter, all remote transactions, including catalog purchases — that cross jurisdictional boundaries currently are taxable only under the use tax. In theory, purchasers buying taxable items from vendors located in another taxing jurisdiction must pay a use tax equal to the sales tax the purchaser would have paid had the goods been purchased "in-jurisdiction."

Attempts at enforcing use taxes, especially on sales from businesses to households, have met with limited success. Estimated rates of enforcement of use taxes on business-to-business sales range from 40 percent to 60 percent, while estimated enforcement rates on business-to-household transactions fall into the single digits (Brunori 2001).

The potential spread of remote sales, particularly e-commerce, has dramatically raised the revenue stakes of limited use-tax enforcement. A number of task forces have been examining the possibility of imposing enforcement responsibilities on remote vendors, requiring them to collect

use taxes imposed by the jurisdictions in which their customers are located. To date, opponents of taxing remote sales have persuaded the Congress that, given the large number of state and local jurisdictions levying sales taxes and the wide variation in their tax practices, the costs of such enforcement arrangements would be too burdensome to be constitutional (under the interstate commerce clause).

The 1992 Supreme Court decision in *Quill Corp v. North Dakota* (504 U.S. 298) concerning state and local sales taxation of mail-order catalog sales is the seminal ruling in this area. In that decision, the Court ruled that imposing use tax collection responsibilities on sellers would unconstitutionally impede the flow of interstate commerce because the "many variations in rates of tax, in allowable exemptions, and in administrative and record-keeping requirements could entangle National [the plaintiff in the case] in a virtual welter of complication obligations."[14]

However, several scholars have questioned whether constitutional barriers to sales taxation of e-commerce are insurmountable (Hellerstein 1997, 1998, 2000; McLure 1998; Wright and Rothstein 1999). In particular, the development of new tax software and a movement to streamline and simplify state and local sales tax laws might enable remote collection and remittance both to pass constitutional muster and to be administratively feasible (see Mikesell 2000).[15]

The effects of e-commerce expansion on state and local sales tax revenues are highly uncertain. The wide range of estimates of forfeited revenues is attributable to uncertainty over three critical underlying issues: 1) the extent to which e-commerce will spread; 2) the extent to which expanding e-commerce will replace other forms of remote sales; and 3) the extent to which sales tax bases will erode anyway because of the shifting composition of consumption and output.

According to estimates by Bruce and Fox (2001), the state revenue loss resulting from the spread of e-commerce as a percentage of total state tax revenues will rise from 1.1 percent in 2001 to 3 percent in 2006 before falling slightly to 2.9 percent by 2011. The comparable percentages at the local level are projected at 0.4 percent, 1 percent, and 0.9 percent. These percentages assume that a significant proportion of e-commerce will substitute for telephone sales, which also are untaxable under current law, thereby blunting the revenue impact.

14 Quoted in McGranahan (2000). As McGranahan observes, in *Quill* the Supreme Court reversed its ruling that the compelling vendors to collect use taxes on remote sales also violated the Constitution's due process clause because it effectively constituted deprivation of property without "due process of law". This was an important modification because the Constitution gives Congress the power to regulate interstate commerce. Consequently, if Congress were to enact a law permitting states to collect use taxes on remote sales through vendors, under *Quill* the law would pass constitutional muster. However, the Constitution gives neither Congress nor the States the authority to pass laws that deprive citizens of due process.

15 An example of such efforts is the National Tax Association's Communications and Electronic Commerce Tax Project. See www.ntanet.org.

Implications for the Corporate Income Tax

In addition to posing challenges for state and local sales tax bases, the spread of e-commerce complicates two important issues in the implementation of corporate income taxes by states. First, under what circumstances does a corporation have a sufficiently large presence within a state to render it liable for the state's corporate income tax? (In legal terms, under what circumstances does the corporation have "nexus"?) Second, given that a corporation has nexus, how does the taxing state determine its fair share of a multistate or multinational corporation's total taxable income—that is, how is the income of such a corporation "apportioned"? Under current rules for establishing nexus and apportioning income, states have had difficulty taxing the income of corporations engaged primarily in electronic commerce.

A federal law enacted in 1959 (P.L. 86-272) forbids states from levying an income tax on a firm whose only business activity within the state's borders is solicitation of purchases of tangible goods to be shipped to customers outside that state. Consequently, if Massachusetts residents and businesses buy computers over the Internet from a company with no facilities or workers located within the Commonwealth, that company is not liable for the Commonwealth's corporate income tax. P.L. 86-272 was enacted to protect companies engaged in mail-order sales, not electronic commerce. Since sales over the Internet will eventually greatly exceed mail-order sales, the revenue consequences of current nexus rules will become much greater.

Even if an e-commerce company has nexus within a state, the state may be able to tax only a small portion of its profits given current state apportionment rules. Apportioning corporate income has been a troublesome issue since the beginning of state corporate income taxation. The main reason: multijurisdictional entities are so thoroughly integrated that formulas designed to allocate their income geographically are in large part arbitrary and therefore controversial.

The traditional factors used to apportion such income, chosen because their geographic loci are identifiable, are payroll, tangible property, and sales. However, a relatively large portion of the property owned by e-commerce companies is intangible (for example, "intellectual property"). These intangible assets generally are omitted from apportionment formulas because, as noted in Section II, their value and geographic location are so difficult to determine. With intangible property left out of the property factor, e-commerce companies can locate their facilities and payroll in states with no corporate income tax, thereby avoiding most state corporate income taxation.

Applying the sales factor to e-commerce companies also poses special problems. Sales of tangible goods are sited in the jurisdiction where the purchaser takes possession. Sales of services, however, are assigned to the jurisdiction where the majority of the income-generating activity involved in providing the service is performed. Electronic commerce often entails the simultaneous sale of both services (such as electronic transfer) and tangible property, making the application of traditional siting rules difficult.

Furthermore, it is hard to determine the location of income-generating economic activity through electronic commerce. Should such activity be sited where the Internet server facilitating the transaction is based? What about where the vendor using the Internet is located, or where the customer is located? These questions raise a host of difficult technical issues that have generated, and will continue to generate, contentious and costly litigation.[16]

16 For further discussion, see McLure (2000); Frieden (2000); Hellerstein (1997); National Conference of State Legislatures and National Governors' Association (1993).

V. The Increasing Pressure on Jurisdictions to Compete

Section Summary: *There is no doubt that fiscal competition among states and local jurisdictions has intensified in recent years — the result of everything from more footloose service and manufacturing firms to an increase in competition from overseas. This trend has contributed to a reduced corporate tax burden, depriving states and localities of hundreds of millions of dollars that could be used to meet community needs.*

States, colonies, and municipalities have engaged in fiscal competition for more than 350 years. As Alice Rivlin asked rhetorically five years ago, "Haven't states and localities always competed for jobs and industry, both here and abroad, using whatever incentives they could lay their hands on?" (Rivlin 1996, p. 20).[17] Indeed, to some observers, the persistence and ubiquity of such competition imply its inevitability among fiscally autonomous subnational governments. As long as businesses, shoppers, and vacationers are mobile, states and municipalities will continue to design their revenue systems in part to attract and retain them.

17 For historical overviews, see Wilson (1989); LeRoy (1994); Chi (1989); Chi and Leatherby (1997); Burstein and Rolnick (1996); Enrich (1996); Gilbert (1995).

Despite its "bad rap" in the 1990s, fiscal competition can be beneficial. Most scholars would agree that in moderation it enhances the operational efficiency of state and local governments. Furthermore, attempts by cities and towns to attract specific types of households and businesses increase the likelihood that a given household or firm will find a community with a set of fiscal characteristics that best suit its tastes. (See Tiebout 1956; Oates and Schwab 1988; Kenyon and Kincaid 1991; Kenyon 1997.) Why, then, has fiscal competition become so controversial that some respected scholars and officials are calling on the federal government to curtail it?

Concern about such competition has intensified because it "has escalated into a bidding crescendo that is injuring the winners as well as the losers" (Rivlin 1996, p. 21). Burstein and Rolnick (1996) characterize it as a "negative sum game," in which jurisdictions shortchange themselves on critical public goods (such as education and infrastructure) to finance incentives for prospective employers — this despite the fact that most jobs created by such employers, so the argument goes, would have been created anyway (McEntee 1996). Too few public goods are produced, and all governments are worse off as competitive tactics become self-defeating and mutually destructive.

By contrast, some analysts, such as Mattey and Spiegel (1996), contend that fiscal competition can enhance efficiency by offsetting the existing bias

against new investment embedded in the nation's federal, state, and local tax laws.

Fiscal competition has intensified for a variety of reasons. During the late 1970s and early 1980s, the combination of soaring energy costs and persistently high rates of unemployment galvanized states and municipalities to do *something* to attract and maintain jobs for their constituents. The shift to services also is partly responsible. Industries requiring proximity to primary resources (such as steel) or central locations (such as autos) have declined in importance in the United States, while sectors that are growing, such as services, are more footloose. Even within mature goods-producing industries, new communications technology and deregulation have enhanced firms' geographic mobility.

Stiffer competition from overseas also has played a role in motivating jurisdictions to offer whatever inducements are necessary to attract and retain businesses. Noting the greater mobility of new firms and their weak attachment to any particular place, critics of fiscal competition contend that such firms will be increasingly successful in playing one jurisdiction against the other.

Evidence that subnational fiscal competition has intensified is clear-cut. For example, in a survey of the 50 states conducted for the Council of State Governments in 1997, Chi and Leatherby (1997) found that all 50 states had increased the level and variety of business tax and financial incentives during the previous 20 years. Thirty-eight of the 50 states reported an increase in the use of such incentives during the five prior years. When asked about expected use of such incentives during the remainder of the 1990s, 25 states expected an increase, 22 no increase, and only two a decrease (one did not respond).

The same trend emerges in surveys of employers. In 1995, Regional Finance Associates, Inc., an economic consulting firm, surveyed more than 200 manufacturing, retailing, and distribution companies that were clients of KMPG Peat Marwick LLP. Of those responding, 73 percent indicated that during the previous year they were offered subnational financial incentives worth more than those they were offered five years earlier.

Another gauge of competitive intensity is the increase in the value of incentives awarded per job created. In 1980, Tennessee offered Nissan a package of incentives worth about $11,000 per job to be created by a new plant. In 1993, Alabama offered $168,000 per promised job to Daimler Benz for a new Mercedes Benz factory. Not to be outdone, Blue Water Fibre obtained an $80 million inducement package from Michigan for a paper-recycling mill employing 34 people, a price tag of about $2.4 million per job (Farrell 1996).[18]

18 Examples such as these have been cited by those wishing to curtail the use of financial incentives as a competitive tactic as evidence of their lack of cost-effectiveness. Scholarly analyses of the degree to which state and local taxes in general, and fiscal incentives in particular, increase employment and investment within a region vary widely and are inconclusive. (See Wasylenko 1997; Bartik 1995 and 1997; McGuire 1997.)

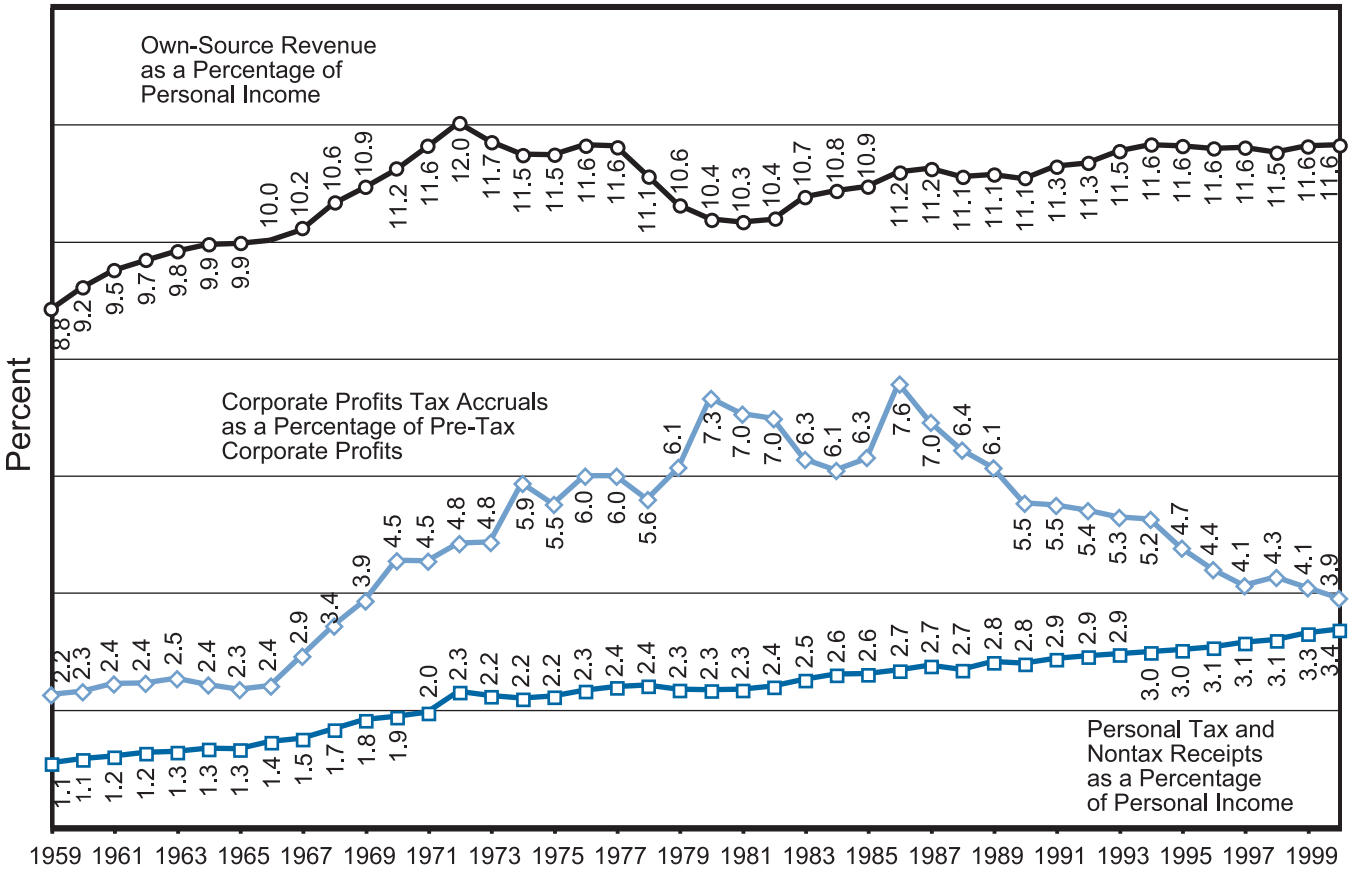


Figure 12
Trends in Selected Ratios of State and Local Tax Burdens Ratios, 1959 to 2000

Note: State and local corporate profits tax accruals as a percentage of nationwide pre-tax corporate profits. Profits include IVA (inventory valuation adjustments) and CCA (capital consumption allowances); they exclude rest-of-the-world profits and profits of the Federal Reserve System. Own-source revenue is the sum of corporate profits tax accruals, indirect business tax and nontax accruals, and personal tax and non-tax receipts.

U.S. Bureau of Economic Analysis, National Income and Product Accounts, Tables 1.14, 2.1 and 3.3.

The damper that competition places on subnational corporate income taxation is reflected in changes over the past 40 years in the ratio of state and local corporate income tax collections to corporate profits (Figure 12). During the 1960s and 1970s, this ratio increased steadily, as the demand for state and local public services grew. The ratio hit a peak of 7.3 percent in 1980 but then dropped sharply because of large increases in depreciation allowances enacted that year by the federal government.[19] These increases, in effect, reduced the percentage of corporate profits subject to federal tax. In turn, state and local corporate tax burdens were affected because, in the interest of administrative simplicity, most states and municipalities tie their definition of taxable corporate profits closely to that used by the federal government.

19 This liberalization of depreciation allowances was part of the Economic Recovery Tax Act of 1981.

The state and local corporate tax burden rose sharply again in 1987 because the federal Tax Reform Act of 1986 eliminated or narrowed several corporate tax deductions, including depreciation allowances. Subsequently, this tax burden fell steadily to 3.9 percent by 2000.

By comparison, the ratio of state and local personal taxes and charges to personal income rose fairly steadily from 1.1 percent in 1959 to 2.7 percent in 1987 and 3.4 percent in 2000.[20] Total state and local government tax and non-tax receipts as a percentage of personal income in 2000 were only slightly below their peak level reached in 1973. Thus, while the burden of state and local personal taxes has risen, the burden of state and local corporate income taxes — the type that impinge most directly on corporate profitability — has been almost halved. These discrepancies suggest that competitive concerns played a large role in cutting the corporate tax burden.[21]

Gauging the revenue impact of business-oriented state and local tax incentives, as opposed to other forms of state and local tax competition, is difficult. States and localities generally do not formally identify and catalog all features of their tax systems designed to enhance their competitive standing, let alone attempt to estimate the impact of these features on revenues.

The City of New York is an exception to this rule. The City's *Annual Report on Tax Expenditures* (2002) analyzes those provisions of its tax laws that provide tax incentives for specific types of economic behavior or tax relief for certain narrowly defined groups of taxpayers under specific circumstances. According to the report, in FY2002 property tax expenditures for commercial and industrial purposes cost the City an estimated $552 million in forgone revenue; this was the equivalent of about 5 percent of potential citywide property tax revenues (actual property tax revenues plus estimated revenues foregone through all tax expenditures). Similar tax incentives embedded in the City's business profits taxes (whose revenue impacts were measurable) cost the City an estimated $427 million in FY1999 (the latest year for which data are available), which was approximately 12 percent of potential revenues from that source.

Thanks to the New York data, we can see that these types of incentives, which are the product of increasing fiscal competition among jurisdictions, are costing localities a significant amount of money and undermining local revenue systems.

20 In the National Income and Product Accounts, state and local personal tax and nontax receipts include state and local personal income taxes, motor vehicle license taxes, fines, and selected other tax and nontax sources for which individuals, as opposed to businesses, are liable. Property taxes and sales taxes are not included.

21 As Cline, et. al. (2003) point out, the declining effective corporate income tax can be explained in part by the increasing rate of conversion from regular "C" corporations to Subchapter S corporations and limited liability partnerships. The profits of C corporations are subject to state corporate income taxes, while those of the latter two entities are imputed to partners and shareholders and taxed at the individual level. The authors also note that, in evaluating business tax burdens, all taxes for which businesses are liable (including property taxes, sales taxes, excise taxes, unemployment insurance taxes, and workers compensation premiums) should be taken into account when evaluating trends in business tax burden. Even taking the authors' estimates of business taxes (based on a very broad definition) at face value, the burden of those taxes has fallen since 1980, while the burden of taxes on individual has risen.

VI. Conclusion and Policy Implications

The economic and political forces imposing fiscal stresses on our nation's state and local governments are difficult to analyze. A number of cyclical and secular forces have converged simultaneously, some exacerbating fiscal stresses and some ameliorating them. As a result, projecting future trends in the fiscal capacity of state and local governments is fraught with uncertainty. Yet, given the possibility of intensifying fiscal pressures, state and local policymakers should consider ways of making their tax systems more stable and revenue-productive. Unfortunately, the available options sacrifice other tax policy objectives.

Taxing Services

Policymakers have considered including a wider array of services in taxable sales. Including services purchased by households, for example, would promote neutrality by putting the consumption of goods and services on a more equal tax footing. However, policymakers would probably eschew the taxation of health services, one of the fastest-growing components of the services sector, on the grounds that incurring medical expenses is generally involuntary.[22]

The taxation of business services, another large and rapidly growing component, would *diminish* tax neutrality by discriminating against industries that rely on services heavily and are not vertically integrated. Professional service firms, whether serving firms or households, might be able to maintain their untaxed status because of their political clout, even in the face of a broad movement to tax services. What's more, taxing business services could increase the regressivity of state and local taxes. The reason: spending on those services most likely to be made taxable, personal services provided by nonprofessionals, accounts for a larger portion of the incomes of low-income and lower-middle income households, relative to middle- and high-income households (Mikesell 1993).

Reducing Sales Tax Preferences

Reducing sales tax preferences for purchases of intermediate goods and machinery equipment by manufacturers, mining concerns, and farms might merely substitute one set of tax-induced distortions for another. While firms in these sectors would be treated more like those in currently unsheltered industries, vertically integrated industries within these three

22 For this reason, most states already exempt sales of medical devices and prescription drugs.

sheltered sectors would gain a tax advantage. Why? Because any increase in the taxation of business-to-business purchases discriminates in favor of vertically integrated industries that are not penalized by the pyramiding of the tax as it is shifted forward to successive stages of production.

Simplifying Taxes

Many state and local governments have embarked on major campaigns to simplify sales taxes and make them more uniform across jurisdictions.[23] Such streamlining is needed to convince the Congress and the courts that remote collection of use taxes on electronic transactions is constitutional and administratively feasible. Achieving this goal, however, will require complex negotiation and compromise by state and local governments throughout the nation. It also will result in a loss of autonomy and discretion that subnational policymakers have been reluctant to cede in the past.

23 The principal formal organization through which they are working is the Streamlined Sales Tax Project. For further details, see the Project's web site: www.geocities.com/streamlined2000.

Reining in Competition

How, if at all, should policymakers rein in subnational fiscal competition? At one extreme, some scholars and officials are calling on the U.S. Congress and/or the courts to penalize or prohibit certain state and local business incentives. They argue that the constitutional prohibition against interference with the free flow of interstate commerce (Constitution, Article I, section 8) gives the federal government ample authority to step in (Burstein and Rolnick 1996; Enrich 1996; McEntee 1996; Hellerstein 1996; Frickey 1996; Kramer 1996). Short of prohibition, the federal government could hold back grant money to states and municipalities that implement extremely aggressive, self-defeating competitive incentives.

Yet calls for federal intervention have elicited a negative reaction from some (for example, Ebel 1997; Fox 1997; Toft 1996). In arguing against intervention, opponents offer the following points:

1) For all its flaws, a system of decentralized autonomous government is still the "least worst," as international evidence linking decentralization with economic growth has shown;

2) Rules implementing federal regulation of competition would have to be so complex that, like so many other federal mandates, they would create more problems than they would solve;

3) Formally constraining interstate and interjurisdictional competition within the United States would still leave states and municipalities vulnerable to competitive pressure from overseas; and

4) Other tactics short of federal intervention could succeed, or at least should be tried, before subnational governments are compelled to sacrifice more of their autonomy.

Other recommendations to dampen mutually destructive competition include the following:

- Voluntary compacts among states and municipalities to refrain from competition, to create more uniformity in taxation, and even to share revenues (Rivlin 1996). Unfortunately, the track record of such voluntary compacts has not been good (see Reich 1996). However, if the stakes become high enough, policymakers might find coordination to be an increasingly attractive option.
- State and municipal "right-to-know" laws, which require beneficiaries of fiscal incentives to provide information that will help citizens evaluate these incentives' "bang for the buck." Such laws would require reporting of jobs expected to be created or retained if the subsidized project were implemented, jobs actually created or retained because of the project, and the compensation paid to jobholders.
- "Clawback" provisions, which would require incentive recipients to meet certain conditions, such as the creation or retention of a minimum number of jobs at a specified minimum wage for a specified minimum amount of time. If the beneficiary failed to meet the agreed-upon objectives, it would have to repay the public subsidies it received to the conferring governments.
- Increased hiring of skilled cost-benefit analysts by state and local governments to help evaluate the costs and benefits that competitive financial incentives entail.
- Abandonment of the corporate income tax, the tax most prone to competitive erosion. As Pomp (1998) has argued, in this age of globalization, conglomerates have become so far-flung and intricately organized that state and city tax officials are having increasing difficulty enforcing corporate income taxes. Reporting requirements that would enhance enforcement and compliance, such as combined reporting, have been fervently and successfully opposed by large corporations. Quite simply, state and city tax departments are increasingly "outgunned" in attempting to enforce this tax. According to Pomp, the tax has little future.

Of all of these strategies, states and municipalities are turning increasingly to "right-to-know" laws and "clawback" provisions in their efforts to blunt the effects of interjurisdictional competition. According to a

comprehensive study directed by the National Association of State Development Agencies:

> "For most incentive programs, policy makers have established eligibility criteria to ensure sound investments in achieving predetermined public policy goals. Accountability measures and other protections such as clawback provisions are built into the programs... States and communities are beginning to add these clawback provisions as a standard element of their incentive offers to firms" (Poole et al. 1999, p. 14)

Further evidence of a growing demand for greater corporate accountability in this area can be found in LeRoy (1994) and in periodic reports posted on the web site of Good Jobs First, a project sponsored by the Institute on Taxation and Economic Policy, Washington, DC (www.goodjobsfirst.org).

Whatever state and local tax reforms are adopted, and whatever is done to rein in interjurisdictional competition, long-run potential threats to the revenue productivity and stability of subnational revenue systems should be continuously reevaluated. With the federal government shifting its priorities in the wake of the attacks of September 11, 2001, states and municipalities might be called upon to shoulder significantly wider domestic fiscal responsibilities. The priority now must be to develop revenue systems that will enable state and local governments to meet these responsibilities effectively in the years to come.

References

Bartik, Timothy J. 1995. "Jobs, Productivity, and Local Economic Development: What Do We Know and What Can We Know?" In *Proceedings of the Eighty-Seventh Annual Conference.* Columbus, OH: National Tax Association.

_____. 1997. "Discussion of Wasylenko and Fisher." *New England Economic Review*, March/April, pp. 67–71. Issue entitled *The Effects of State and Local Public Policies on Economic Development*, published by the Federal Reserve Bank of Boston.

Bruce, Donald, and William F. Fox. 2000. "E-Commerce in the Context of Declining States Sales Tax Bases." *National Tax Journal*, vol. 54, no. 4, part 3, pp. 1373–88.

_____. 2001. *State and Local Sales Tax Revenue Losses from E Commerce: Updated Estimates.* Salt Lake City, UT: Institute for State Tax Studies. September.

Brunori, David. 2001. *State Tax Policy: a Political Perspective.* Washington, DC: Urban Institute Press.

Burstein, Melvin L. and Arthur J. Rolnick. 1996. "Congress Should End the Economic War for Sports and Other Businesses." *The Region*, June, pp. 35–36. Special issue entitled *The Economic War Among the States*, published by the Federal Reserve Bank of Minneapolis.

Chi, Keon. 1989. *The States and Business Incentives: An Inventory of Tax and Financial Incentives Programs.* Lexington, KY: Council of State Governments.

Chi, Keon and Drew Leatherby. 1997. *State Business Incentives: Trends and Options for the Future.* Lexington, KY: Council of State Governments.

Cline, Robert, William F. Fox, Thomas S. Neubig, and Andrew Phillips. 2003. "A Closer Examination of the Total State and Local Business Tax Burden." *State Tax Notes*, vol. 27, no. 4, pp. 295–303.

DRI/WEFA. August 2001 Data Disc. Lexington, MA.

Ebel, Robert. 1997. "Policy Implications: A Panel Discussion, Comments." *New England Economic Review*, March/April, pp. 146–47.

Enrich, Peter D. 1996. "Saving the States from Themselves: Commerce Clause Constraints on State Tax Incentives for Business." *Harvard Law Review*, vol. 110, no. 2, pp. 377–468.

Farrell, Chris. 1996. "The Economic War Among the States: An Overview." *The Region*, June, pp. 4–7.

Federation of Tax Administrators. 1997. *Sales Taxation of Services*, 1996 Update. Research Report RR-147. Washington, DC.

_____. 2001. "State Sales Tax Exemptions, Food and Drugs." www.taxadmin.org.

Fox, William F. 1997. "Policy Implications: A Panel Discussion, Comments." *New England Economic Review*, March/April, pp. 142–43.

_____. 1998. "Can the State Sales Tax Survive a Future Like Its Past?" In David Brunori, ed., *The Future of State Taxation*, pp. 33–48. Washington, DC: The Urban Institute Press.

Fraumeni, Barbara M. 2001. "E-Commerce: Measurement and Measurement Issues." *The American Economic Review*, vol. 91, no. 2, pp. 318–22.

Frickey, Philip P. 1996. "The Congressional Process and the Constitutionality of Federal Legislation to End the Economic War Among the States." *The Region*, June, pp. 58–59.

Frieden, Karl. 2000. *Cybertaxation: The Taxation of E-Commerce*. Chicago: CCH Inc.

Gilbert, Jennifer L. 1995. "Selling the City Without Selling Out: New Legislation on Development Incentives Emphasizes Accountability." *Urban Law Review*, vol. 27, pp. 427, 430.

Hellerstein, Walter. 1996. "Commerce Clause Restraints on State Tax Incentives." *The Region*, June, pp. 60–66.

_____. 1997. "State Taxation of Electronic Commerce." *Tax Law Review*, vol. 52, no. 3, pp. 425–506.

_____. 1998. "Electronic Commerce and the Future of State Taxation." In David Brunori, ed., *The Future of State Taxation*, pp. 207–24. Washington, DC: Urban Institute Press.

_____. 2000. "Federal Constitutional Limitations on Congressional Power to Legislate Regarding State Taxation of Electronic Commerce." *National Tax Journal*, vol. 53, no. 4, part 3, pp. 1307–26.

Kenyon, Daphne A. 1997. "Theories of Interjurisdictional Competition." *New England Economic Review*, March/April, pp. 13–27.

Kenyon, Daphne A. and John Kincaid, eds. 1991. *Competition among State and Local Governments: Efficiency and Equity in American Federalism*. Washington, DC: The Urban Institute Press.

Kramer, Larry. 1996. "The Power of Congress to Regulate Interstate Tax Competition." *The Region*, June, pp. 64–66.

LeRoy, Greg. 1994. "No More Candy Store: States and Cities Making Job Subsidies Accountable." Washington, DC: *Good Jobs First*.

Mattey, Joe and Mark Spiegel. 1996. "On the Efficiency Effects of Tax Competition for Firms." *The Region*, June, pp. 50–51

McEntee, Gerald W. 1996. "The Problem with State Bidding Wars and Some Possible Remedies." *The Region*, June, pp. 41–42.

McGranahan, Leslie. 2000. "The Debate on Internet Sales Taxation." *Chicago Fed Letter*, Federal Reserve Bank of Chicago, Number 154 (June).

McGuire, Therese J. 1997. "Discussion of Wasylenko and Fisher." *New England Economic Review*, March/April, pp. 76–77.

McLure, Charles E., Jr. 1998. "Electronic Commerce and the Tax Assignment Problem: Preserving State Sovereignty in a Digital World." *State Tax Notes*, vol. 14, no. 15, pp. 1169–81 (April 13).

_____. 2000. "Implementing State Corporate Income Taxes in the Digital Age." *National Tax Journal,* vol. 53, no. 4, part 3, pp. 1287–1306.

Mikesell, John L. 1993. *City Finances, City Futures.* Columbus, OH: Ohio Municipal League.

_____. 2000. "State Retail Sales Taxes, 1995-1998: An Era Ends." *State Tax Notes*, vol. 18, no. 8, pp. 583–95 (February 21).

National Conference of State Legislatures and National Governors' Association. 1993. *Financing State Government in the 1990s.* Ronald Snell, ed. Denver, CO. December.

New York City. 2001. *Annual Report of State Tax Expenditures*, 2002. www.nyc.gov./html/dof/html/taxpol.html.

Netzer, Dick. 2003. "Will the Property Tax Become an All-but-Forgotten Relic of an Earlier Fiscal Age?" *State Tax Notes*, vol. 29, no. 1, pp. 30–35.

Oates, Wallace E. and Robert M. Schwab. 1988. "Economic Competition among Jurisdictions: Efficiency Enhancing or Distortion Inducing?" *Journal of Public Economics*, vol. 35 (April), pp. 333–54.

Pomp, Richard D. 1998. "The Future of the State Corporate Income Tax: Reflections (and Confessions) of a Tax Lawyer." In Brunori, David, ed., *The Future of State Taxation*, pp. 49–72, Washington, DC: The Urban Institute Press.

Poole, Kenneth E., George A. Erickcek, Donald T. Iannone, Nancy McCrea, and Pofen Salem. 1999. *Evaluating Business Development Incentives.* Washington, DC: National Association of State Development Agencies. Printed by ACCRA.

Reich, Robert. 1996. "Bidding Against the Future?" *The Region*, June, pp. 26–30.

Rivlin, Alice. 1996. "An Economic War." *The Region*, June, pp. 20–26.

Tiebout, Charles. 1956. "A Pure Theory of Local Expenditure." *Journal of Political Economy*, vol. 64, no. 3, pp. 416–24.

Toft, Graham S. 1996. "Doing Battle Over the Incentives War: Improve Accountability but Avoid Federal Noncompete Mandates." *The Region*, June, pp. 37–40.

U.S. Advisory Commission on Intergovernmental Relations. 1988. *Significant Features of Fiscal Federalism*, Volume I. Washington, DC.

U.S. Bureau of Economic Analysis. 2001. *National Income and Products Accounts.* "Regional Accounts Data for GSP."

_____. 2001 (January), 1992 (April), 1984 (May). *Survey of Current Business.*

U.S. Census Bureau. 2000. *Statistical Abstract of the United States: 2000*, 120th Edition. Washington, DC: U.S. Government Printing Office.

_____. 1977, 1987, 1992. *Census of Governments. Volume 4 Government Finances. Number 5*: "Compendium of Government Finances." Washington, DC: Government Printing Office.

_____. 1997. http://www.census.gov/govs/www/cog.html.

_____. 1977. *State Government Tax Collections.* Table 8.

_____. 1977, 1994. *City and County Data Book.*

_____. 1977, 1982, 1987, 1992. *Census of Manufactures.*

_____. 1997. http://www.census.gov/prod/ec97/97m31-ma.pdf.

_____. 1999. *Governmental Finances.* www.census.gov/govs/www/estimate99.html.

U.S. Internal Revenue Service. 1997, 1987, 1997. *Statistics of Income — Corporate Income Tax Returns.* Washington, DC.

U.S. Office of Management and Budget. 2001. *Budget of the United States, FY2002.* http://www.whitehouse.gov/omb/budget/ fy2002/budget.pdf.

Wasylenko, Michael. 1997. "Taxation and Economic Development: The State of the Literature." *New England Economic Review*, May/June, pp. 37-52.

Wilson, Roger. 1989. *State Business Tax Incentives and Economic Growth: Are They Effective? A Review of the Literature.* Lexington, KY: Council of State Governments.

Wright, Traci G. and Jesse Rothstein. 1999. "Taxes and the Internet: Updating Tax Structures for a Wired World." *State Tax Notes*, vol. 17, no. 8, pp. 491-511. August 23.

Youngman, Joan M. 1998. "Property, Taxes, and the Future of Property Taxes." In Brunori, David, ed., *The Future of State Taxation*, pp. 111-28. Washington, DC: The Urban Institute Press.

About the National League of Cities

The National League of Cities, the oldest and largest national organization representing cities, seeks to strengthen and promote cities as centers of opportunity, leadership, and governance. Research at NLC is overseen by William R. Barnes, Director of Research and Municipal Programs.

National League of Cities
1301 Pennsylvania Avenue, NW
Washington, DC 20004
www.nlc.org