Taxing Simply

District of Columbia Tax Revision Commission

Taxing Fairly

Full Report

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CHAPTER H

Sales Taxes in the District of Columbia: Current Conditions and Policy Options

William F. Fox

Introduction

The first state sales tax was adopted by Mississippi in 1932. The District of Columbia followed 18 years later, introducing its sales tax in 1950. Today the District joins 45 states in levying sales taxes.[1] The sales tax has grown to be the third-largest revenue source for the District, generating almost $500 million in 1996 and providing nearly one out of every five tax dollars. The sales tax is a somewhat less important revenue source for the District than for the average state, but it is more important than for the average city. Five different sales tax rates are levied by the District, depending on the specific type of transaction being taxed. In addition, the District levies selective sales taxes on gasoline, cigarettes, beer, and wine. Both the sales tax and the selective sales taxes are imposed at rates that generally are high in comparison with Maryland and Virginia, potentially creating economic development problems and revenue losses.

Perhaps the most significant finding in this chapter is that sales taxation has been a less productive revenue source for the District in the 1990s than in the previous decade. Revenues from the general sales tax have grown much more slowly relative to income in recent years — and beer, cigarette, and gasoline tax revenues have fallen with declines in the purchase of these commodities. A number of causes can be cited, including the shifting location of population and employment and relatively high tax rates. Unfortunately, there are no quick, easy fixes to the sluggish revenue performance.

The challenge facing the District is to design effective sales tax policy in an environment where some of the factors influencing the sales tax, such as a growing tendency for consumers to purchase services and the District's small geographic size, are outside the control of District policymakers. A series of issues and options is listed in the last several sections of the chapter to identify the key policy alternatives for the Tax Revision Commission.

This comprehensive analysis of the District's sales and selective sales taxes is composed of six sections. The first major section is a description of the sales tax structure, including consideration of the tax base, exemptions from the base, the multiple tax rates, and the extent to which services are taxed. The second major section is an analysis of the sales tax's contribution to the District's finances, including a discus-

sion of the tax's adequacy and stability. The third section is an evaluation of two major issues raised by the sales tax: 1) equity; and 2) effects on the location of retailing and other economic activity. Next is a review of the selective sales taxes. The fifth section is an analysis of significant issues in design of the sales tax base. The final section is a discussion of several issues in tax administration and compliance.

Sales tax structure[2]

GENERAL TAX BASE

The gross sales tax is levied on the privilege of selling tangible personal property at retail and on certain enumerated services. The base for each taxable transaction is gross receipts, though the receipts can be reduced by cash discounts and rescinded sales (when a complete refund is made). The specific set of taxable goods and services has been altered regularly since the sales tax was introduced in 1950. D.C. Department of Finance and Revenue (now the Office of Tax and Revenue) publications list at least 20 changes in the general sales tax base since 1950 and a number of other changes in the bases that are taxable at higher rates. Recent base expansions include adding snack foods, publications and newspapers, courier services, and employment services to the set of taxable transactions.

Sales tax revenues are collected and remitted to the District by vendors. As a norm, vendors must submit tax payments by the 20th of the month after the sale takes place. A penalty of 5 percent per month, with a maximum of 25 percent, is assessed for failure to pay the sales tax or for tardy payments. In addition, 1.5 percent interest is charged monthly for late payments.

As occurs with sales taxes in all states, exemptions, which often are defined by either type of transaction or type of vendor, are permitted for a variety of reasons. A number of business transactions are exempt, such as sales-for-resale, to reduce tax pyramiding and to make the sales tax more like a consumption tax. Exemptions are allowed for some other transactions, such as casual sales, to limit administrative and compliance costs. Some transactions are exempt because there may be a constitutional limitation or because Congress wanted the exemptions, such as with sales to the federal government. Exemptions are granted in some cases because the transaction is subject to another tax, as is true with some telecommunications activities. Other exemptions are provided in an attempt to make the tax more equitable, as occurs with exemptions for health care.

The specific list of exemptions includes:

- Items purchased for resale;
- Sales to the United States government or the District of Columbia;

- Sales to states or other/political subdivisions;
- Casual or isolated sales;
- Purchases by telecommunications, utility, or public service companies when the company's receipts are subject to the telecommunications service tax;
- Natural gas, oil, electricity, solid fuel, or steam used in manufacturing;
- Items purchased to be used or incorporated in tangible personal property that is to be produced through manufacturing, refining, assembling, or processing;
- Prescription and nonprescription drugs;
- Various health-related devices;
- Motor vehicle fuels subject to the fuel tax;
- Food purchased with food stamps or purchased for certain uses by nonprofit, volunteer organizations;
- Residential electricity, natural gas, and heating oil; and
- Motor vehicles subject to the titling tax (levied at 6 percent on vehicles up to 3,500 pounds and at 7 percent above 3,500 pounds).

Another set of transactions is not defined as sales-at-retail, which effectively means that these items are exempt from tax. These include:

- Transportation and communications services, except for data processing, information, and local telephone services;
- Food for consumption at home, except for snacks; and
- Parking for residents for noncommercial purposes at or near their home.

The provisions described above result in the exemption of the majority of transactions in the District from the sales tax. Exemptions as a percent of total sales reported to the Department of Finance and Revenue are shown in Figure H-1 for 1989–1996. These statistics understate the extent of exempt sales because firms with no sales tax liability, such as law firms, may choose not to report their sales and companies generally may do a poor job of reporting exempt sales (since there is no associated tax liability). The percent of exempt sales has varied from 53.8 percent to 60.3 percent across the years, though there has been no trend up or down since 1989.

The percent of gross sales that was exempt during 1996 for a select set of industries is shown in Figure H-2. More than 90 percent of sales by apparel and finished product manufacturers were exempt. Similarly, large percentages of sales by wholesale firms and health service firms were exempt. These industries do have some taxable sales because they may also sell at retail (as with manufacturers and wholesalers) or they may have restaurant and concession sales (as with health care providers). By comparison, eating and drinking establishments, hotels, and apparel stores have very limited exempt sales.

Figure H-1

Exempt Sales as Percent of Total Sales

Tax Year	Percent
1989	59.44%
1990	55.50
1991	56.97
1992	54.49
1993	59.75
1994	53.80
1995	56.09
1996	60.34

Source: D.C. Office of Tax and Revenue and author's calculations.

Measuring the breadth of the sales tax base is difficult because there are no data series on local consumption to serve as a benchmark. A frequently used approach is to examine the tax base as a share of personal income. The sales tax base as a share of personal income has declined nationally from an average of 58.7 percent in 1979 to the 1996 average of 41.9 percent. The District tax base, including the base taxable at each of the five tax rates, equals 34.6 percent of personal income.[3] Data are only available to measure the base decline in the District since 1989, when the base was 43 percent of personal income. Put together, these statistics indicate that the District's base is a smaller share of personal income than in the average state, and the relative decline during the 1990s has been large.

Several explanations can be given for the narrowness of the District's base. Some of the reasons result from policy decisions and administrative practices and some from factors that are outside the District's control. The District imposes the sales tax on a relatively long list of services (Figure H-3), but other policy decisions on the structure of the District's sales tax have led to a narrow base. Residential utilities, nonprescription drugs, and food for consumption at home are examples of potentially taxable items that have been exempted by the District. Weak administration of the tax is another possible explanation for the narrow base. A third explanation is the propensity for District residents to shop outside the District. Also, the intensive presence of the federal government and international organizations, neither of which can be required to collect or pay the sales tax, makes it more difficult for the District to collect the sales taxes that would be due if the vendors were private firms.

Figure H-2

1996 Exempt Sales as Percent of Total Reported Sales for Selected Industries*

Industry Sector	Percent
Apparel and finished products manufacturing	90.44%
Nondurable wholesale trade	89.92
Durable wholesale trade	78.10
Health services	73.86
Business services	70.40
Food stores	59.04
Furniture and equipment stores	47.02
Motion pictures	40.36
Legal services	26.01
General merchandise stores	19.92
Amusement and recreation	18.36
Apparel and accessory stores	11.44
Hotels, rooming houses, etc.	8.36
Eating and drinking places	7.26

**Firms may not report all exempt sales.*
Source: D.C. Office of Tax and Revenue and author's calculations.

THE USE TAX

The District, as with all sales-taxing states, imposes a compensating use tax. The use tax is levied on the use, storage, or consumption of sales-taxable goods and services that are purchased outside the District for use or consumption in the District. In many cases, the purchaser is required to remit the use tax directly to the Office of Tax and Revenue. Exemptions from the use tax are granted when the sales tax has already been paid to the District or where sales tax has been paid in another state.

SERVICES IN THE BASE

The District, like most other jurisdictions, approaches the taxation of services very differently from goods. As a general rule, goods sold at retail are taxable unless a specific exemption is granted. Services, on the other hand, are only taxable if they are specifically enumerated. Across the country, this approach to taxing services has often made it politically difficult to expand the base to new services because the affected industries lobby strongly to prevent their specific inclusion in the base.

Figure H-3

Taxation of Services in D.C., Md., and Va.

Service Type	D.C.	Maryland	Virginia	U.S. Total
Utilities	10	5	1	16
Personal	7	3	3	20
Business	11	13	4	34
Computer	6	1	0	6
Amusements	6	11	1	14
Professional	0	0	0	8
Fabrication, repair, install	13	4	4	19
Other	10	2	5	47
Total	**63**	**39**	**18**	**164**

Source: Federation of Tax Administrators.

The District has extended the base to include a relatively broad number of services, compared with many states. The set of enumerated taxable services in the District includes: production, fabrication, or printing of tangible personal property on special order; local telephone service (but not toll calls or private communication services); repair of tangible personal property; duplicating services; laundering and cleaning; admissions (but not for concerts or plays); and landscaping.

The Federation of Tax Administrators (April 1997) prepared a comprehensive list of the services that are taxable in each state and the District. The median state taxes 37 of the 164 listed services, while the District taxes 63 services. An aggregated list of the services taxed by the District, Virginia, and Maryland is in Figure H-3. The District taxes many computer; fabrication, repair, and installation; and utility services. However, the District does not tax any professional services, and only taxes a relatively narrow set of personal, amusement, and other services.[4] Still, the District taxes many more services than either Maryland or Virginia, though Maryland taxes more business and amusement services. Further discussion of the appropriate tax base for services is provided below.

TAX RATES

Five different tax rates are imposed on sales, depending on the specific commodity or service: 1) 5.75 percent is the standard rate for tangible personal property and services; 2) 12 percent for parking or storing vehicles; 3) 10 percent for sales of food or

drink for immediate consumption, or for on-premises use; 4) 13 percent for transient room rentals; and 5) 8 percent for liquor, beer, or wine for off-premises use. The different rates make it seem as though there are five sales taxes, rather than one. A number of states allow lower sales tax rates for certain transactions, but the imposition of a series of higher rates is very rare.[5] However, several states levy higher tax rates on alcohol, vehicle rentals, and hotel rooms. Of course, states and the District often impose differential excise tax rates on a set of items such as gasoline, alcohol, and cigarettes.

The District has had a history of raising sales tax rates. For example, the general sales tax was initially imposed in 1950 at a 2 percent rate. The standard rate was raised from 2 percent to 3 percent in 1963; from 3 percent to 4 percent in 1970; from 4 percent to 5 percent in 1973; from 5 percent to 6 percent in 1980; from 6 percent to 7 percent temporarily in June 1994; and then lowered back to 5.75 percent in October 1994. Numerous changes have occurred in the other sales tax rates as well.

The median sales tax rate that is imposed only by the state governments is 5 percent. The states have demonstrated a strong tendency over the years to raise tax rates. The median rate rose from 3.25 percent in 1970, to 4 percent in 1980, to the current 5 percent. Seventeen states now impose a rate of at least 6 percent, largely attributed to declines in their respective tax bases. Tax rate changes have been very common across the states, as evidenced by the pattern of rising rates during the 15 years illustrated in Figure H-5. Indeed, Minnesota and Arkansas are raising their rates for fiscal year 1998.

For comparison purposes, combined state and city tax rates were identified for a major city in each state (Figure H-4).[6] The median combined state and local sales tax rate of 6 percent is higher than the 5.75 percent general sales tax rate in the District; and the combined rate in 37 of the cities is higher than in the District. The highest rate is 9 percent in Louisiana, and the lowest rate is in Delaware, Montana, New Hampshire, and Oregon, where no sales tax is levied.[7] Rates are generally lower along the eastern seaboard of the United States: New York and Rhode Island are the only states along the eastern seaboard with rates among the top 19 highest. Maryland imposes a 5 percent rate and Virginia imposes a 4.5 percent combined state and local rate. The District's other four rates are much higher than the median of the state and local sales tax rates shown in Figure H-4.

Tax base at each rate

Between three-fifths and two-thirds of taxable transactions in the District have been in the base that is currently taxable at the 5.75 percent rate (Figure H-6). This percentage has fallen slightly since 1989, a trend that is mostly attributable to the fact that more liquor sales (taxable at 8 percent) have been reported separately, beginning in 1992. The effective tax rate has risen slightly from 7.45 per-

Figure H-4

State and Local Sales Tax Rates

State	State Sales Tax	Local Sales Tax	State and Local Sales Tax	City
Alabama	4%	4%	8%	Birmingham
Alaska	0	5	5	Juneau
Arizona	5	2.7	7.7	Yuma
Arkansas	4.5	2.5	7	Little Rock
California	6	2.25	8.25	Los Angeles
Colorado	3	4.3	7.3	Denver
Connecticut	6	0	6	–
Delaware	0	0	0	–
District of Columbia	0	5.75	5.75	–
Florida	6	0.5	6.5	Miami
Georgia	4	2	6	Atlanta
Hawaii	4	0	4	–
Idaho	5	0	5	Boise
Illinois	6.25	2.5	8.75	Chicago
Indiana	5	0	5	–
Iowa	5	1	6	Dubuque
Kansas	4.9	1	5.9	Kansas City
Kentucky	6	0	6	–
Louisiana	4	5	9	New Orleans
Maine	6	0	6	–
Maryland	5	0	5	–
Massachusetts	5	0	5	–
Michigan	6	0	6	–
Minnesota	6.5	1	7.5	Minneapolis
Mississippi	7	0	7	–
Missouri	4.225	2.625	6.85	St. Louis
Montana	0	0	0	–
Nebraska	5	1.5	6.5	Omaha
Nevada	6.5	0.5	7	Reno
New Hampshire	0	0	0	–
New Jersey	6	0	6	–
New Mexico	5	1.25	6.25	Santa Fe
New York	4	4.25	8.25	New York

State	State Sales Tax	Local Sales Tax	State and Local Sales Tax	City
North Carolina	4	2	6	Raleigh
North Dakota	5	1	6	Bismarck
Ohio	5	2	7	Cleveland
Oklahoma	4.5	3.875	8.375	Oklahoma City
Oregon	0	0	0	–
Pennsylvania	6	1	7	Philadelphia
Rhode Island	7	0	7	–
South Carolina	5	1	6	Charleston
South Dakota	4	2	6	Rapid City
Tennessee	6	2.25	8.25	Nashville
Texas	6.25	2	8.25	Dallas
Utah	4.875	1.35	6.225	Salt Lake City
Vermont	4	0	4	–
Virginia	3.5	1	4.5	All
Washington	6.5	1.7	8.2	Seattle
West Virginia	6	0	6	–
Wisconsin	5	0.6	5.6	Milwaukee
Wyoming	4	2	6	Cheyenne

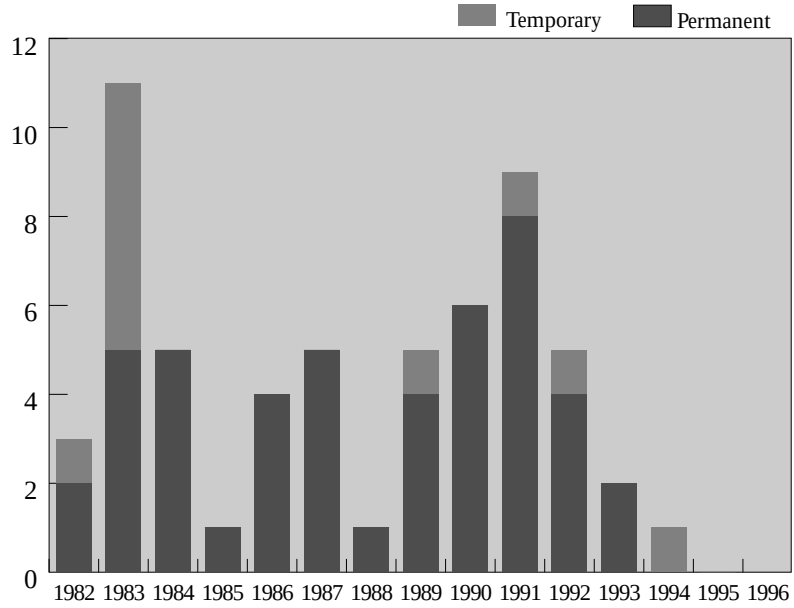
Source: Commerce Clearinghouse.

cent to 7.64 percent as more sales are taxable at the higher rates. Approximately one-fifth of sales are for food and drink for immediate consumption (taxable at 10 percent), and one-tenth are for hotel rooms and other transient accommodations (taxable at 13 percent). Combined, liquor and parking are about one-twentieth of the tax base.[8]

Sales in certain industries, such as apparel and furniture stores, are essentially all taxable at 5.75 percent (Figure H-7). In comparison, sales in many other industries, such as food stores, eating places, and hotels, are taxable at multiple rates. Thus, it is frequently necessary for firms to not only identify what transactions are taxable, but also at which rate. The effective tax rates differ widely by industry. The major determinant of the differences is the share of taxable sales that is taxed at higher rates. The effective rate is only calculated for taxable sales, and large exemptions for potentially low tax rate sales can affect the effective rates.

Figure H-5

Number of State Sales Tax Rate Increases by Year



Source: Author's calculations.

Contribution of District sales tax revenues to government finance

Sales tax revenue performance can be evaluated along three dimensions: the current revenues collected; the growth path of revenues over the long-term; and the stability of revenues across the business cycle. In terms of current revenues, the sales tax generated $495.4 million during fiscal year 1996 (Figure H-8), representing 19.5 percent of total District tax revenues. The sales tax is the third-biggest source of District tax revenues, following the property and income taxes (Figure H-9).

Overall, the District's reliance on the sales tax is somewhat below the average for cities and states combined, though this results in part from the unique character of the District as neither a state nor a city within a state. Combined, states and cities raised 23.8 percent of their revenues from the sales tax in 1994, second only to the property tax in importance. Major reasons for the District having a lower percentage

Figure H-6

Distribution of Taxable Sales by Rate
Percentage of Base at Different Rates

Tax Year	5.75%	8%	10%	12%	13%	Average Effective Rate*
1989	67.67%	0.05%	20.62%	2.25%	9.41%	7.45%
1990	67.80	0.01	20.50	2.54	9.15	7.44
1991	65.60	0.02	21.27	2.65	10.47	7.58
1992	64.73	2.88	20.37	2.62	9.40	7.86
1993	59.43	5.48	21.52	2.79	10.78	8.07
1994	60.06	7.00	20.70	4.09	8.15	7.63
1995	62.65	2.44	21.46	2.97	10.48	7.66
1996	63.30	2.36	20.82	3.22	10.30	7.64

**The average effective tax rate is calculated at current rates, not at the rates that were imposed in the corresponding year.*

Source: D.C. Office of Tax and Revenue and author's calculations.

is that the District raises relatively more property tax revenues than states, and relatively more personal income tax revenues than local governments. The role of sales taxes in state and local government finance is generally lower in the mid-Atlantic and New England areas. The sales tax provides 13.6 percent of Maryland state and local government revenues (24.5 percent of state revenues) and 16.6 percent of Virginia state and local revenues (22.4 percent of state revenues). The District uses the sales tax heavily, compared with other cities, and lightly compared with states.

Sales tax revenues were 2.46 percent of the District's personal income in 1996, somewhat higher than the national average of 2.23 percent for state tax revenues (but lower than the national average of 2.6 percent for state and local governments in 1994). The District generates relatively more revenues from its sales tax than the average state because of the higher rates imposed on the four special sales categories, and because the District's rate is higher than the state average. On the other hand, the District's base is smaller as a share of personal income than in the average state. State and local sales taxes in Maryland are 1.53 percent of personal income and in Virginia are 1.68 percent of personal income.

The average long-term trend around the United States has been for sales tax collections to rise as a percent of income (Figure H-10). The increasing share results from higher rates, as the base has been falling relative to income. The tendency,

Figure H-7

Distribution of Taxable Sales by Tax Rate
1996

Industry Sector	5.75%	8%	10%	12%	13%	Average Effective Rate
Apparel and accessory stores	99.54%	0.36%	0.09%	0.00%	0.01%	5.76%
Furniture and equipment stores	99.26	0.57	0.13	0.00	0.04	5.77
General merchandise stores	96.70	0.77	2.52	0.00	0.01	5.88
Food stores	55.39	15.35	28.18	0.07	1.01	7.37
Eating and drinking places	7.31	0.39	87.13	0.60	4.57	9.83
Health services	44.01	0.51	40.46	14.68	0.34	8.42
Auto repair and garages	22.56	0.30	14.89	59.31	2.94	10.31
Real estate	10.33	0.07	15.08	27.38	47.15	11.52
Local and suburban transit	70.68	1.24	2.94	25.13	0.00	7.47
Educational services	75.91	0.48	4.65	17.98	0.98	7.15
Hotels, rooming houses, etc.	1.69	0.06	27.26	2.86	68.13	12.03
Building construction, contractors	22.37	0.07	31.03	1.51	45.02	10.43

Source: D.C. Office of Tax and Revenue and author's calculations.

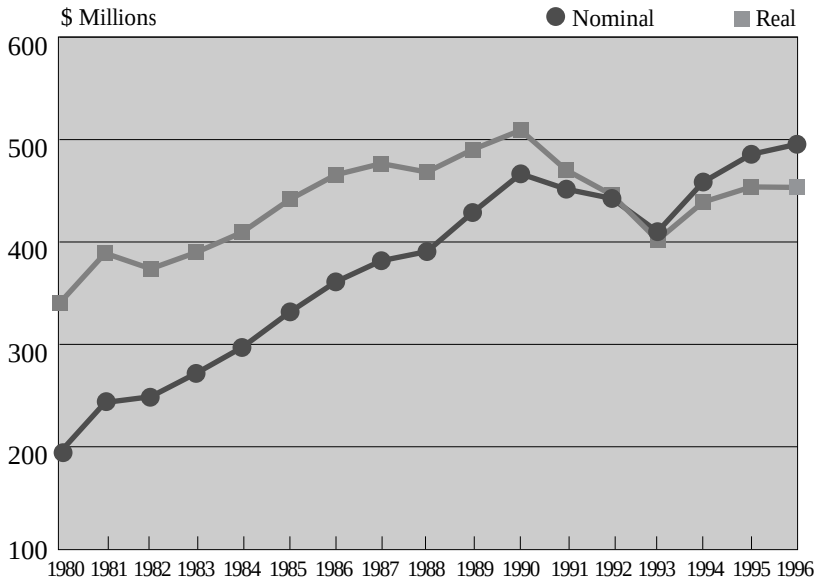
both in the District and elsewhere, is for revenues to decline as a share of personal income between rate increases (this occurs because the elasticity is less than 1) and to grow as a share of personal income, in discreet jumps, with rate hikes. The District's revenues as a share of income have fallen because no general rate increase has been enacted since the rate was decreased in 1994 (except for the one-quarter rate increase in 1994).

REVENUE GROWTH

Revenue growth is important to ensure that sufficient funds are available to provide for the District's future expenditure needs. The historical pattern of revenue growth can be used as an indicator of how well revenues will expand in future years. The District's revenue growth has been acceptable when viewed across the entire period from 1982 to 1996. Revenues have grown 4.6 percent annually since 1982, even though the growth rate is only 1 percent per year in real terms (after adjusting for

Figure H-8

D.C. Sales and Use Tax Collections
Millions of Nominal and 1992 Dollars

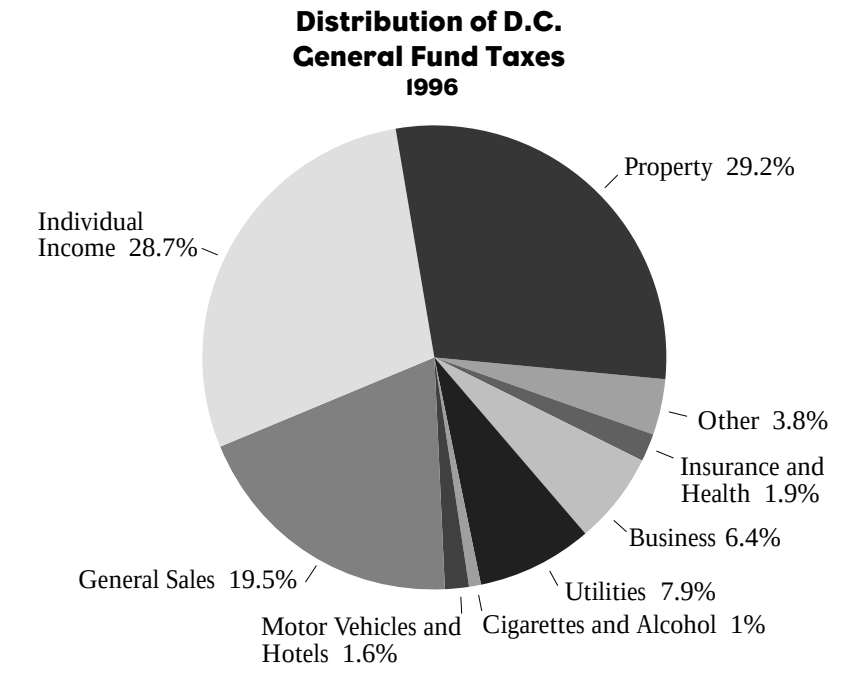


Source: D.C. Office of Tax and Revenue and author's calculations.

inflation).[9] However, since 1990, nominal revenues have grown little and real revenues are down 16 percent.

The income elasticity of tax revenues is a method frequently used to evaluate revenue growth performance. The elasticity is defined as the percent change in revenues divided by the percent change in personal income. Income elasticities are calculated in two ways here — one based on actual revenues and the other based on revenues adjusted for rate and base changes. The former, often termed buoyancy, illustrates how well revenues have performed when revenue changes resulting from policy decisions (both rate and base changes) and revenue growth in response to the economy are aggregated. The elasticity adjusted for rate and base changes only measures growth in response to the economy.

Figure H-9



Source: D.C. Comprehensive Annual Financial Report.

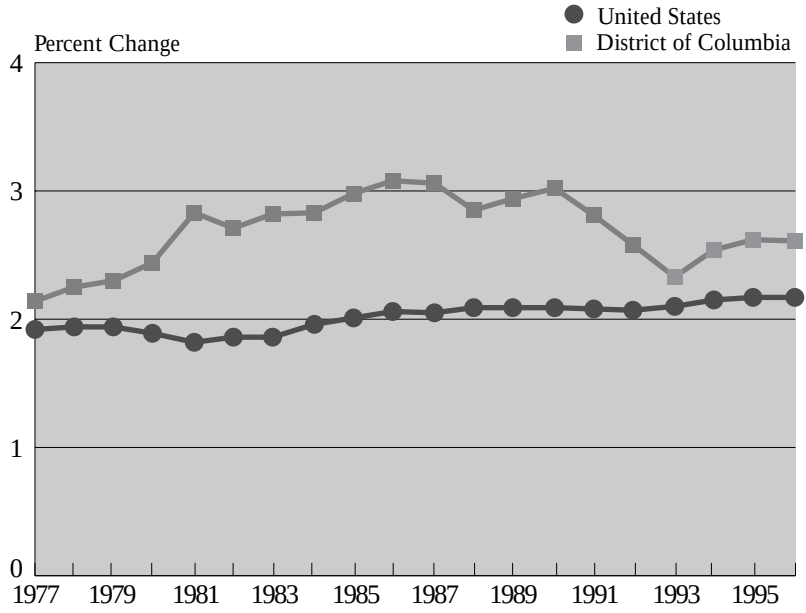
Tax adequacy

The long-term elasticity (calculated over a number of years) measures the sales tax's ability to generate sufficient revenues over time. This can be used to examine the adequacy of the sales tax to finance public services. Annual elasticities measure the volatility of sales tax revenue growth across the business cycle, and can be used to examine the sales tax's stability. The long-term elasticity, adjusted for rate and base changes, has been 0.9 since 1982 (Figure H-11). This means that revenues would have grown nine-tenths as fast as personal income if not for base and rate changes. The long-term elasticity is in the normal range of the estimated elasticities for state sales taxes. The sales tax revenue buoyancy was 0.95 from 1982 to 1996, evidencing that policy changes have slightly increased revenue growth relative to personal income over the past 14 years.

The elasticity has dropped dramatically in recent years, and a major concern is whether future sales tax revenue growth (along with growth in other tax sources) will

Figure H-10

D.C. and U.S. State Sales and Use Tax Collections as Percent of Personal Income



Source: D.C. Office of Tax and Revenue and author's calculations.

be sufficient to finance growth in public service needs, without policy changes such as rate increases. The elasticity has been only 0.45 since 1990 and the buoyancy has been an even lower 0.30, but from 1982 to 1989, the elasticity was 1.02 and the buoyancy was 1.17.[10] Revenues actually fell each year from 1991 to 1993, and grew each year from 1994 to 1996. The combined result is the low elasticity and annual growth rate of only about 2 percent per year in the 1990s. The elasticity and buoyancy estimates suggest that the relationship between revenue growth and the economy has been severely weakened, and the sales tax has been increasingly unable to contribute toward growing demands for public services. Several explanations can be offered for the remarkable shift in the pattern relative to economic performance:

- **Services.** The sales tax base does not include some of the most rapidly growing service sectors, such as health care. These same service categories were also growing rapidly in the 1980s, but it is likely that the increase in expenditures

Figure H-11

Elasticity and Buoyancy Estimates and Growth Rates for the D.C. Sales and Use Tax

Year	Elasticity	Buoyancy*	Growth Rates
1982	0.33	0.33	2.32
1983	1.97	1.96	9.23
1984	1.04	1.03	9.23
1985	1.93	1.96	11.71
1986	1.59	1.58	8.83
1987	0.93	0.92	5.73
1988	0.24	0.24	2.34
1989	0.31	1.53	9.76
1990	1.46	1.45	8.81
1991	0.08	-0.83	-3.21
1992	-0.41	-0.31	-2.01
1993	-3.51	-2.54	-7.33
1994	1.91	4.60	11.82
1995	6.36	2.26	5.91
1996	0.86	0.86	2.01
1982–1989	1.02	1.17	6.27
1982–1996	0.90	0.95	3.67
1990–1996	0.45	0.30	0.98
1989–1996	0.67	0.55	1.94

**Includes changes in base and rates.*

Source: Author's calculations.

for these services was even faster during the 1990s. Data on consumption in the United States are given in Figure H-12. Examination of the data evidences that consumption is growing most rapidly in services, and specifically services that lie outside the tax base.[11] Services have risen from 47.4 percent of total consumption expenditures in 1979 to 57.7 percent in 1996. Consumption of goods declined by a corresponding percentage. More than one-half of the increase in service expenditures was for health care, which is untaxed, and about one-half of the decline in goods' expenditures was for food

Figure H-12

Personal Consumption Expenditures
1979 and 1996 (Billions of Nominal Dollars)

	1979		1996	
	Amount	Distribution	Amount	Distribution
Total Expenditures	**$1,594.0**	**100.0%**	**$5,151.4**	**100.0%**
Durable goods	**213.9**	**13.4**	**632.1**	**12.3**
Motor vehicles and parts	93.5	5.9	252.5	4.9
New autos	49.3	3.1	81.4	1.6
Used autos, net	11.3	0.7	54.9	1.1
Other motor vehicles	16.6	1.0	77.3	1.5
Tires, access., and parts	16.3	1.0	38.9	0.8
Furniture and household equipment	82.3	5.2	254.4	4.9
Other durables	38.2	2.4	125.2	2.4
Nondurable goods	**624.0**	**39.1**	**1,545.1**	**30.0**
Clothing and shoes	101.2	6.3	264.4	5.1
Food and beverages	324.2	20.3	772.3	15.0
Off-premise consumption	221.3	13.9	485.9	9.4
Purchased meals	96.7	6.1	277.6	5.4
Other food	6.2	0.4	8.9	0.2
Gasoline and oil	66.3	4.2	121.8	2.4
Fuel oil and coal	14.4	0.9	11.1	0.2
Other nondurables	118.0	7.4	375.4	7.3
Services	**755.6**	**47.4**	**2,974.3**	**57.7**
Housing	226.6	14.2	779.4	15.1
Household operation	100.0	6.3	309.5	6.0
Transportation	59.1	3.7	204.5	4.0
User-operated	41.7	2.6	163.0	3.2
Local	4.8	0.3	9.7	0.2
Intercity	12.6	0.8	31.9	0.6
Medical care	158.0	9.9	815.8	15.8
Other	212.0	13.3	865.0	16.8

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

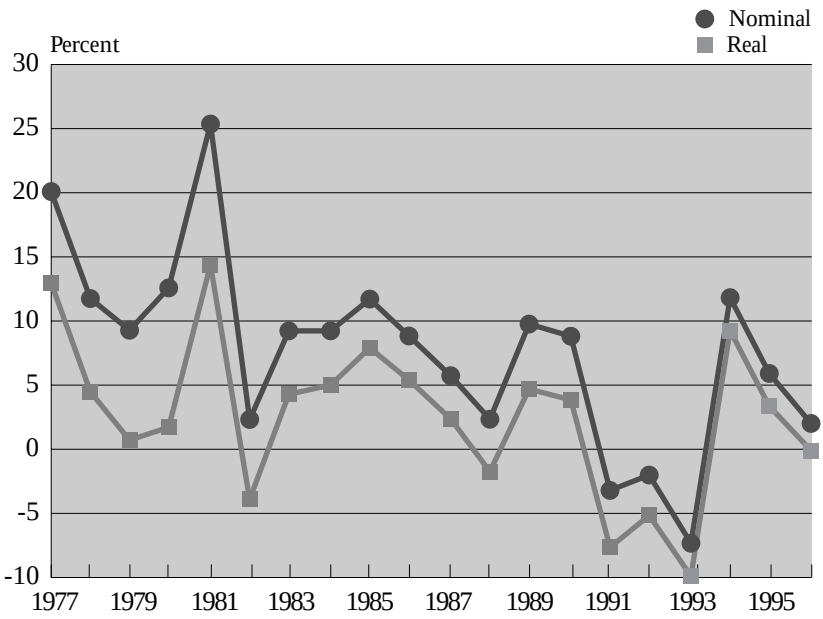
for home consumption, which also is nontaxable. Note that these data only include final consumption, and not purchases by businesses. Business purchases of services, such as professional, computer, and employment agency services, are growing very rapidly and the effect of growth in business demands for these and other services is not reflected in the data in Figure H-12.

- **Avoidance.** Avoidance may be growing, as taxpayers are better able to purchase through electronic means, via mail order, or by traveling to Maryland, Virginia, or elsewhere. Electronic commerce is limited thus far, but the expectation is for rapid growth in electronic commerce over the next 10 years, expanding the potential for tax avoidance. Although the use tax is due on many of these purchases, the District has a very limited capacity to collect payments from individuals (as opposed to businesses).
- **Tax policy decisions.** The buoyancy is lowered by decisions to reduce the tax base or cut the tax rate. As already noted, there have been frequent changes in the base and the rates, with some resulting in reduced revenues.
- **Evasion.** Tax evasion may be growing, though no data are available to demonstrate the extent to which this is true. Weaker administration of the tax is a possible source of greater evasion.
- **High costs of business.** The costs of operating a business in the District — such as those arising from insurance, regulation, and other business taxes — may have risen in recent years, encouraging retailers to locate outside of the District. According to statistical analyses reported below, population movements may also explain the shift of retail employment out of the District.
- **Data problems.** Members of the Office of Tax and Revenue believe there may be problems in measuring personal income in the District, though there are no data to support this assertion. The presumption from this argument is that the elasticity estimates since 1990 are understated.

Revenue growth has been much better since 1994, suggesting continued improvement in coming years. Still, in real terms, revenues remain below 1990 levels and, in 1996, revenues failed to grow in real terms. It is unclear whether sales tax revenue growth will return to the strong pattern of the 1980s, or continue the slow growth path of the 1990s. With recent problems precluding any quick fixes that could lead to a return to the revenue performance of the 1980s, better administration is a key to improved revenue growth. A broader base, including more services, could help. At a minimum, the District must shy away from further decisions that narrow the tax base. Tax rates must be kept competitive with surrounding areas to ensure that businesses and consumers do not have a tax incentive to shop outside the District. These and other policy issues are discussed in more detail below.

Figure H-13

Growth in Real and Nominal Sales and Use Tax Collections



Source: D.C. Office of Tax and Revenue and author's calculations.

The long-term elasticity will probably remain below 1, regardless of whether future revenues grow more like the 1980s or the 1990s. Whichever occurs, an elasticity below 1 means better revenue growth will need to come from other tax sources, or sales tax rate or base increases will be necessary if revenues are to maintain a constant share of personal income.

TAX STABILITY

Sales taxes are normally unstable across the business cycle.[12] An important reason is that consumer purchases of major durable goods and business purchases of investment goods tend to be much stronger in expansion than in recession years. Rapidly rising expenditures for these big-ticket items result in much larger elasticities during expansions, particularly in the years immediately following recessions. While this pattern generally holds, there is volatility in the size of the elasticity during both expansions and contractions because of fluctuations in interest rates, inflation rates,

and other economic variables, and from randomness in the timing of purchases in the District. Increases in District sales tax revenues have been characterized by very erratic growth over the past 20 years, and by actual declines in four years (Figure H-13). With the exception of 1994, when the tax rate was temporarily increased, there appears to be a general tendency towards lower real revenue growth in recent years.

Annual elasticities and buoyancies from 1982 to 1996 were very volatile, and the timing is generally consistent with business cycles (Figure H-11, page 276). However, some differences in timing are to be expected because national recessions may not affect the District in exactly the same way as other parts of the country.[13] The District's elasticity was low in the 1982 and 1991 recession years, and was negative in 1992 and 1993.[14] Overall, the elasticity varied from a high of 6.4 in 1995 to a low of -3.5 in 1993. The wide variation in elasticities creates problems for funding government programs because service demands continue even when elasticities are low. Also, swings in the elasticities make it difficult to estimate revenues.

Evaluating the consumer sales tax

Economists have traditionally evaluated the sales tax as a consumption tax. The presumption is that the tax is a levy that is intended to be paid by households on their consumption, even though the tax may be collected by businesses. A consumption framework is useful and will serve as a basis for much of the evaluation that follows. Nonetheless, the sales tax base deviates from consumption by households in a number of important ways. First, the sales tax continues to be primarily a tax on the purchase of tangible goods — not on all consumption — despite the District's attempt to expand the base to selected services. Major omissions include health care, housing, and professional services.

Second, the tax normally is paid when the transaction occurs, not when consumption takes place (although the combined sales and use tax is closer in theory to representing a consumption tax). Consumption occurs when an item is actually enjoyed and the transaction occurs when the item is purchased. A major difference arises with the purchase of durable goods. For example, the sales tax (in the District, the titling tax) is levied at the time an automobile is purchased, but the consumption benefits from the vehicle may be received over many years. The tax also fails as a consumption tax because the D.C. Office of Tax and Revenue is unable to administer use taxes on many out-of-state purchases by residents, even though the purchases are for consumption in the District.

Third, businesses' purchases are frequently taxed. Exceptions include certain manufacturers' purchases and sales for resale. Ray Ring (1989) estimated that 48 percent of the District's sales taxes were paid by businesses or tourists. Not surprisingly, this

is higher than the 41 percent for the average state. The large number of tourists in the District likely explains the difference.[15] Based on Ring's estimate, almost $250 million of District sales taxes were paid by businesses and tourists in 1996. Despite the importance of business sales tax payments, the following analysis of equity is couched in terms of the sales tax as a consumption tax. A separate section on issues associated with imposing the sales tax on businesses is presented below.

EQUITY

Two dimensions of equity — horizontal equity and vertical equity — allow examination of fairness in different contexts. Vertical equity refers to the distribution of tax burdens across people with different incomes. Horizontal equity refers to the relative tax burden imposed on people with similar incomes. The District's sales tax will be examined in terms of each concept in this section.

Equity is best evaluated in terms of the final incidence of the tax, after taxes have been shifted. Here, the tax on consumer purchases is assumed to be borne by the consumer. Taxes imposed on businesses can be shifted to consumers through higher product prices, to workers or other input suppliers through lower wages, or to owners through lower profits. Unfortunately, there is little information on who actually bears the tax. Therefore, no attempt is made in this section to allocate the tax burdens that are initially incident to business.

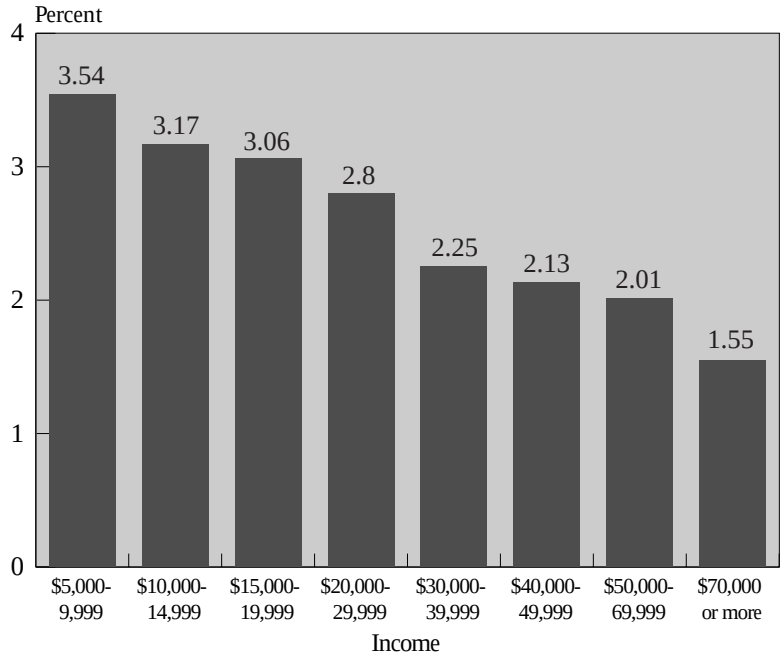
Vertical equity

The appropriate degree of vertical equity in a tax system is in the eye of the beholder. Some feel that taxes should be progressive; some believe they should be proportional; and others feel they should be regressive. A tax is described as progressive if the percentage of income paid in taxes rises as income goes up, as proportional if the percentage of income paid in taxes is the same for all income levels, and as regressive if the percentage of income paid in taxes falls as income rises. It is important to remember that higher-income households probably pay more tax dollars than do lower-income households, regardless of whether the tax is progressive, proportional, or regressive. Thus, discussions about whether taxes should be regressive or progressive actually should center around how fast the tax burden should rise with income, not whether it should rise with income.

Data drawn from the U.S. Bureau of Labor Statistics' Consumer Expenditure Survey (CES) were used to estimate the sales tax liability for District residents in different income brackets. The CES reports data on how consumers in different income brackets spend the resources that are available to them. For example, the CES shows how much money consumers in the $5,000–$9,999 income bracket spend on apparel for men and boys, major appliances, health insurance, dairy products, and so forth.

Figure H-14

D.C. Sales Tax Payments as Percent of Income



Source: U.S. Bureau of Labor Statistics and author's calculations.

The first step in the analysis was to classify each category of expenditures as taxable, partially taxable, or nontaxable. The second step was to estimate the tax liability for all taxable expenditures using the five different tax rates. Finally, tax payments for each category were summed and divided by the average income in the bracket to determine the percentage of income paid in taxes for each bracket.[16]

Households in the category earning less than $5,000 annually represent a very diverse group, including some retired individuals, some students, some recently unemployed, and some of the long-term poor. Many households in this category may have substantially more capacity to purchase than is reflected by their income. For example, some students may be receiving significant amounts of money from their parents that are not included in the student's income. One evidence is that the average annual expenditures for the category are more than seven times greater than the category's average income. Thus, this category is excluded from tax burden comparisons.

Figure H-15

Estimated D.C. Sales Taxes by Income Group

	$5,000 –9,999	$10,000 –14,999	$15,000 –19,999	$20,000 –29,999	$30,000 –39,999	$40,000 –49,999	$50,000 –69,999	$70,000 or more
Expenditures as percent of income	174.62	143.31	128.59	109.65	94.82	85.83	83.67	64.91
Total sales tax	$264.96	$392.29	$526.44	$688.69	$774.46	$941.95	$1,171	$1,632
Sales tax as percent of income	3.54	3.17	3.06	2.80	2.25	2.13	2.0	1.55
Sales tax as percent of expenditures	2.03	2.21	2.38	2.56	2.37	2.48	2.40	2.39
Taxable sales as percent of consumption	37.66	39.88	42.16	45.18	42.10	43.24	41.99	41.32

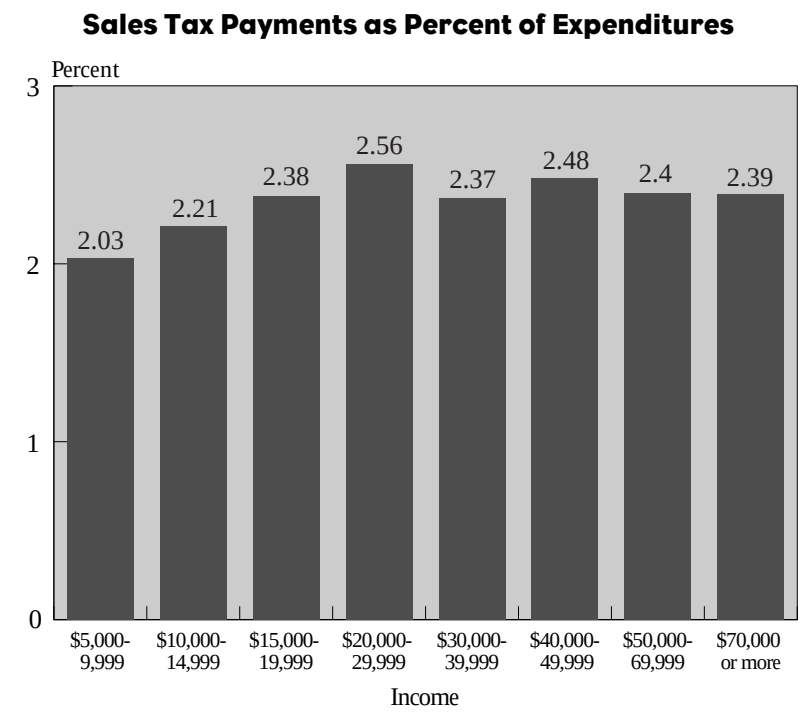
Source: U.S. Bureau of Labor Statistics and author's calculations.

The expenditure pattern analysis evidences that the District's sales tax is regressive when compared with current income. Households with incomes of $5,000–$9,999 pay 3.54 percent of their income in sales taxes, while households with incomes above $70,000 pay 1.55 percent of their income in sales taxes (Figures H-14 and H-15). Even households in the $15,000–$19,999 income bracket pay 3.06 percent of income in sales taxes, about twice the percentage of the highest income group.

The regressive sales tax is much more the result of lower-income households spending a higher percentage of their income, than of the specific types of purchases that they make. The percentage of income that is spent, as opposed to saved, falls as income rises. In fact, every category with income up to $30,000 has higher expenditures than income.

Some economists have argued that lifetime income is a better basis for comparing tax burdens than annual income. The concept is that people set their expenditure patterns based on the overall consumption level they expect to maintain across their life span, and thus consumption levels depend on expected income over one's lifetime rather than in a single year. For example, people who have recently lost their jobs may spend more than would be expected from their current income.

Figure H-16



Source: U.S. Bureau of Labor Statistics and author's calculations.

Both retirees and young people consume more than is expected compared with their income because their lifetime income is greater than their current income. Peak income earners, on the other hand, spend less relative to their income because they are saving for retirement. Poterba (1989) has argued that annual (or current) expenditures are a good proxy for lifetime income. Therefore, estimated sales tax burdens were compared with annual expenditures for each income category. The distribution is approximately proportional when the tax burden is compared with consumption instead of annual income, except for the lowest income bracket where the tax burden is lower than for other groups (Figures H-15 and H-16). Thus, the sales tax is not regressive when compared with lifetime income.

Improving vertical equity

As noted above, equity is in the eye of the beholder, and some feel the sales tax burden is fair because people are taxed according to what they take from the economy

in consumption or because people are taxed in proportion to lifetime income. Others think it is unfair because the tax burden is regressive when compared to current income. If the sales tax burden is regarded as unfair, a frequent question is how can the tax be made more fair? An important point to remember is that the sales tax's regressiveness in relation to current income results from a propensity for lower-income households to spend more relative to their income, not from the pattern of expenditures. In fact, households with incomes above $70,000 spend a relatively larger percentage of their consumption on sales-taxable commodities than do households with income below $15,000 (partly because of the different tax rates), but the big difference is that households with incomes above $70,000 have much lower consumption relative to their income.

One often-suggested approach for reducing regressivity is to exempt transactions heavily consumed by low-income residents, and to tax those consumed by high-income residents. Unfortunately, low-income households spend more of their income on almost all goods and services than do high-income households. Higher income households spend relatively more for a narrow set of services, including fees and admissions, entertainment equipment, and education. Consumption of personal services and restaurants is proportional up to incomes in the $50,000–$70,000 range. The bottom line is that, unless the tax base is to be a very narrow assortment of items, the sales tax's regressiveness against current income will not be eliminated by exempting certain categories of consumption that are consumed heavily by low-income residents. Food and household utilities already are exempt and the tax remains regressive relative to current income. Similarly, broadening the base to additional services is unlikely to result in any significant improvements in equity.

An appropriate response to concerns about fairness of the sales tax is that the wrong issue is being raised. A strong case can be made that the issue is whether the overall District tax burden is fair, not whether each individual tax is fair. Based on this perspective, it can be argued that changes in the sales tax base are a clumsy means for enhancing equity, because the benefits of exempting items from the base cannot be targeted to the intended beneficiaries. High-income taxpayers benefit from sales tax base exemptions just as do low-income taxpayers, and the high-income residents probably save a larger dollar amount in taxes. Thus, changing the tax base could be a very expensive means (in terms of lost revenues) for reducing tax burdens for low-income households. Perceived fairness in the tax system can be overcome more efficiently through taxes levied directly on people, such as an income tax, because the benefits can be targeted to the desired beneficiaries.

One method for improving equity of the entire tax system is to combine characteristics of the sales and income taxes. For example, the sales tax could be broadened to include exempt items, such as food and utilities. Then, the tax rate could be lowered and an income tax credit equal to the sales tax paid on these taxable

items could be given to reduce any perceived equity. This system could make the overall tax burden less regressive (or more progressive) against current income if all households are given the same value of credit. The effects of such a policy are discussed in the section below on issues in the sales tax.

Horizontal equity

Taxes are horizontally equitable when people with the same ability to pay have the same tax liability. Thus, a horizontally equitable sales tax would impose the same tax burden on all people with the same level of income (or consumption). The sales tax will only score well on horizontal equity when essentially all consumption is taxable. Otherwise, variation in tax liabilities will occur as people make different decisions about which items to consume.

Despite the guiding principle that all consumption should be taxed, exemptions and exclusions for certain expenditures are granted because of high administrative or compliance burdens associated with the tax, perceived vertical equity problems, constitutional or legal restrictions, and political judgments. All of these exemptions and exclusions violate horizontal equity and make the tax less "fair," even though other goals for the tax system may be achieved. This illustrates the well-accepted adage (discussed more below) that goals for tax systems often conflict, and setting tax policy often entails balancing different objectives.

The sales tax fails on horizontal equity grounds because most household consumption is exempt. This means that tax burdens differ simply because of how people choose to spend their resources. Expenditure patterns given in the CES indicate that only about 40 percent of the expenditures made by households in each income bracket are for sales-taxable commodities (Figure H-15, page 283).[17] In other words, the District exempts much more of consumption for households in all income brackets than it taxes. Large exempt categories include health care, food, gasoline, personal services, and most housing expenditures. Thus, for both those in low-income and in high-income groupings, households that are relatively heavy consumers of housing, food, health care, and so forth will have lighter tax burdens than those that are heavy consumers of clothing, automobiles, reading materials, and household supplies.

The best way to reduce horizontal inequities is to broaden the sales tax base to the maximum extent possible. Other goals of the tax structure, such as vertical equity, can then be achieved through alternative means, such as by altering the income tax structure.

EFFECTS OF TAXES ON THE LOCATION OF RETAIL AND ECONOMIC ACTIVITY

All taxes distort economic behavior in some way, and one of the challenges in designing tax structures is to balance the various consequences of the overall system

so that the effects are acceptable. The effects of taxes on the location of business are an important factor that all governments analyze carefully.

The smaller the geographic area under consideration, the greater the potential implications of taxes for business location, so the diminutive geographic size of the District means location effects can be larger than in many other places. Businesses have the potential to serve the broad Washington, D.C., market from a wide set of locations in the area. Similarly, firms that are producing for national or international markets can often locate their activities anywhere in the area and feel that they have the advantages of being in the national capital. Thus, high costs of doing business in one place versus another, whether induced by high taxes or some other factor, have the potential to significantly alter where businesses locate in the metropolitan area.

An effective use tax can reduce locational effects of the sales tax. For example, District residents must pay the titling tax on autos purchased elsewhere, so there is no tax advantage to shopping for vehicles at vendors outside the District. This has the potential to help District retailers. Nonetheless, in many other cases there can be tax savings from purchasing outside the District because the use tax is difficult to collect. Also, the use tax should be collected on inputs that all businesses buy outside the District. The use tax precludes firms from lowering their costs of producing in the District by purchasing inputs in places where the sales tax burden is lower. In this case, the use tax can make it more attractive for firms to locate in lower tax jurisdictions outside of the District.

A number of factors determine how taxes affect the location of sales. First, taxes only matter to the extent that there are tax rate or base differentials across governments. There is only an incentive to shop across the border when one side of the border has lower effective tax rates than the other side. The savings from the lower taxes must be larger than the expense of traveling across the border, including both travel costs and time incurred, before any advantage is reaped from shopping in a low-tax area. Thus, the greater the differentials in effective tax rates, the larger the locational effects.

Second, the entire tax structure, not just the sales tax, must be evaluated to determine what effect taxes have on the location of sales. For example, other consumption taxes, such as cigarette and alcohol taxes, can be an important consideration in where consumers decide to shop. Also, higher property and corporate income taxes can raise the cost of doing business in a state and thereby offset any advantage that results from lower sales taxes.

Third, because taxes and expenditures are linked, a reduction in District taxes that is intended to make the city more competitive may lead to lower service levels. Lost benefits in the form of infrastructure or other services could offset gains from lower taxes.

Figure H-17

Percent of Area Retail Sales in Different Subregions

	D.C. as Percent of MSA*			D.C. as Percent of Selected Area		
	1982	1987	1992	1982	1987	1992
Total	**14.23%**	**11.57%**	**10.01%**	**16.12%**	**13.38%**	**11.86%**
Building materials	6.82	5.39	3.49	8.73	7.30	4.73
General merchandise	10.13	9.76	5.41	10.99	10.91	6.44
Food stores	12.77	10.84	9.34	15.24	12.84	11.41
Auto dealers	3.94	2.62	1.75	4.40	3.01	2.06
Gas stations	10.57	6.91	8.62	12.57	8.46	10.89
Apparel	21.33	18.32	13.55	22.86	19.82	14.83
Furniture	14.29	10.89	9.28	15.44	11.92	10.31
Eating and drinking	30.49	26.15	24.23	34.00	29.41	27.82
Drug	23.93	18.76	16.88	26.19	21.17	19.77
Miscellaneous	34.53	21.81	16.33	38.20	23.85	18.13

**Metropolitan Statistical Area.*

Source: U.S. Census Bureau.

Empirical research on effects of tax differentials along state borders (the best parallel to the effect that taxes would have inside the Washington, D.C., metropolitan area) supports the expectation that taxes affect where people shop.[18] Research over the past several decades has generally demonstrated that consumers will cross state borders to purchase in lower sales tax jurisdictions. For the 1978 D.C. Tax Commission, Fisher analyzed the effect of sales tax rate differentials on sales in the District during the period 1962–1976. Prior to exemption of food from the sales tax, he concluded that tax differentials caused a 7 percent loss in food sales for every 1 percent difference in the tax rate. He did not find any effect of the sales tax on the location of nonfood sales. Walsh and Jones (1988) found that sales in West Virginia border counties are affected by tax differentials with other states, but sales in interior counties are unaffected. A synthesis of the research leads to the conclusion that a 1 percent increase in the sales tax differential reduces spending in the high-tax area by between 1 percent and 10 percent, with the most likely impact occurring somewhere in the middle, even though Fisher found no effect in the Washington area.[19] The greatest effects appear to be on the purchase of bigger-ticket items (such as furniture, appliances, and electronic equipment) and much smaller effects occur for drug

store, convenience store, and restaurant sales. These results suggest that lower sales tax rates could have a small positive effect on sales in the District, but these gains could be offset if tax rates on other bases are increased to replace the revenues.

There has been a dramatic and consistent decline in the District's share of retail sales, which can be seen in both retail employment and retail sales data. The District's share of retail employment for a selected portion of the metropolitan area declined from 34.1 percent in 1969 to 14.4 percent in 1994.[20] The District has a somewhat smaller share of retail sales than of retail employment, but the decline since 1982 in retail sales as a share of the region's activity has been of a similar relative magnitude. The District's share of retail sales has fallen from 16.1 percent of the selected area in 1982 to 11.9 percent in 1992 (Figure H-17). The decline in sales has occurred across all types of retailing, but has been relatively less pronounced in eating and drinking establishments, gas stations, and drug stores.[21] Also, retail employment in the District is smaller relative to the city's population than is true for the selected region.

The key issues are whether the District's sales tax rates have caused the large relative decline in District sales and retail employment, and whether lower tax rates would reverse the pattern. The somewhat higher general sales tax, plus the high tax on parking, could be discouraging retail sales in the District. If the rates — which have consistently been above those for the surrounding areas — have caused a loss in economic activity, are the effects irreversible, so that lowering the rates now would either have no effect or would only shift sales back to the District over a very long time? In an effort to provide some answers to these questions, several regressions were run relating the relative District sales tax rate to the share of the selected area's retail employment that is in the District.[22] The sales tax rate is negative and statistically significant in the equation, and remains so when the share of personal income in the District is also included in the regression. However, the sales tax rate was not found to have a statistically significant effect when the share of population in the District was included in the equation (in place of personal income) with the sales tax rate. This is consistent with Fisher's findings. In other words, the shift in relative population better explains the trend in retail employment than do differentials in sales tax rates. This suggests that the sales tax rate has not been the driving force in the loss of retailing activity. Nonetheless, recent experience with raising rates on selective excises, described below, seems to indicate that a loss of those sales is associated with the higher tax rates.

Nothing definitive can be said about whether the trend of retail activity out of the District can be reversed by lowering tax rates. Consumers form shopping habits and choose shopping locations over many years, and it seems likely that a considerable period of time would be necessary for more favorable tax rates in the District to have a noticeable effect on the location of retailing activity.

The District's sales tax has the potential to discourage other businesses as well. The 12 percent tax on parking, likely intended as a tax on commuters, could

require firms to pay higher wages and could discourage firms from locating in the District. The 10 percent restaurant and 13 percent hotel taxes could encourage people to eat or stay in the surrounding areas, or at a minimum, reduce the prices that can be charged by restaurants and hotels in the District. Little research has been done on the effect of these sales taxes on the location of nonretail businesses, although Fox and Murray (1990) found some evidence that sales taxes reduced the number of firms with 12–50 employees. Bartik (1989) determined that lower sales tax rates on business equipment increase the start up of small firms in a state. Chapter C undertakes a careful analysis of tax effects on the location of population and private employment in the Washington area. The authors find no influence of the sales tax rate on population growth, and a negative, though not statistically significant, effect on the growth in private employment.

Selective sales taxes

The District imposes selective sales taxes on gasoline, cigarettes, beer, and other alcoholic beverages. Gasoline is taxed at 20 cents per gallon, cigarettes at 65 cents per pack, beer at $2.79 per barrel, spirits at $1.50 per gallon, and wine at 45 cents per gallon. All of the rates have been increased in recent years. Approximately $54.4 million was collected in 1996 from imposition of these taxes (Figure H-18), but the revenue performance has been very poor.

Implications of issues discussed above for the general sales tax — including revenue growth, equity, and border effects — are similar for selective sales taxes, and the discussion will not be repeated in depth. A key difference for the selective taxes is that the rate is levied on the quantity of consumption, not the price. As a result, the revenues only rise when consumption grows, and not surprisingly, revenue growth from these taxes has been very low, because taxable beer, gasoline, and cigarette consumption has declined recently in the District.

Across governments, high taxes on cigarettes, alcohol, and gasoline have been justified by an argument, only partially true, that consumption of these commodities will decrease very little as prices increase. However, the option to purchase these commodities in neighboring states allows for significant response to higher tax rates. The 65 cent cigarette tax levied by the District is one of the highest tax rates on cigarettes of any jurisdiction in the United States (Figure H-19). Maryland has a 36 cent per pack tax and Virginia has the lowest tax in the United States at 2.5 cents per pack. The result is that District revenues only doubled from 1989 to 1996, while the rate increased 3.8-fold. Revenues have declined since 1992, even though rates increased both in 1992 and 1993. The cigarette tax rate increased from 17 cents to 30 cents in 1991, to 50 cents in 1992, and to 65 cents in 1993.

Figure H-18

Estimated Tax Collections*
($ Millions)

Year	Gasoline	Beer	Cigarettes
1988	$27.986	$1.179	$11.169
1989	28.772	1.181	10.727
1990	30.365	1.475	8.908
1991	30.178	1.447	13.268
1992	31.495	1.541	22.455
1993	35.155	1.567	23.633
1994	35.967	1.457	20.995
1995	33.870	1.427	21.645
1996	32.568	1.333	20.605
Buoyancy 1988–1996	**0.470**	**0.380**	**1.844**

**Collections were estimated by multiplying the quantity sold by the tax rates.*
Source: D.C. Office of Tax and Revenue and author's calculations.

This suggests that the higher tax rate has discouraged the purchase of cigarettes in the District, but likely has increased their purchase in surrounding areas. The high cigarette tax rates give consumers another incentive to shop outside of the District for other purchases. Also, high tax rates may increase the propensity for vendors to evade payment of the tax to the District.

Purchases of gasoline and beer also have been falling in the District, and the option to buy in Maryland or Virginia may be a partial explanation. The gasoline tax's buoyancy was 0.47 between 1988 and 1996, despite rate increases from 15.5 cents to 18 cents per gallon in 1989 and to 20 cents in 1992 — mainly because taxed gasoline purchases have decreased since 1990. The District's gasoline tax rate is above the median of the states (Figure H-20), below Maryland's 23.5 cents per gallon tax and above Virginia's 17.5 cent tax. The beer tax rate increased in 1989, and both consumption and tax revenues have fallen since 1990. Maryland levies the same tax rate on beer as the District ($2.79 per barrel), while Virginia has a much higher $8.81 tax.

A recent study concluded that differences in beer prices across government borders can be an important cause of cross-border shopping (Beard, Gant, and Saba, 1997). They estimate that the District loses 4.8 percent of its beer sales because of border crossing. The authors did not find that border crossing to pur-

Figure H-19

Cigarette Tax Rates

Rank	State	Cents per Pack of 20	Rank	State	Cents per Pack of 20
1	Washington	82.5	27	Arkansas	31.5
2	Massachusetts	76	28	Pennsylvania	31
3	Michigan	75	29	Alaska	29
4	Maine	74	30	Idaho	28
5	Oregon	68	31	Utah	26.5
6	District of Columbia	65	32	Delaware	24
7	Rhode Island	61	32	Kansas	24
8	Hawaii	60	32	Ohio	24
9	Arizona	58	35	Oklahoma	23
10	New York	56	36	New Mexico	21
11	Connecticut	50	37	Colorado	20
12	Minnesota	48	37	Louisiana	20
13	Illinois	44	39	Mississippi	18
13	North Dakota	44	39	Montana	18
13	Vermont	44	41	Missouri	17
13	Wisconsin	44	41	West Virginia	17
17	Texas	41	43	Alabama	16.5
18	New Jersey	40	44	Indiana	15.5
19	California	37	45	Tennessee	13
19	New Hampshire	37	46	Georgia	12
21	Iowa	36	46	Wyoming	12
21	Maryland	36	48	South Carolina	7
23	Nevada	35	49	North Carolina	5
24	Nebraska	34	50	Kentucky	3
25	Florida	33.9	51	Virginia	2.5
26	South Dakota	33			

Source: Commerce Clearinghouse.

chase liquor was statistically significant. Nonetheless, the greatest quantitative measure (0.42 percent of sales) of consumers crossing the border for liquor purchases was in the District. The authors believe that the demographic differences between consumers of the two products — beer is consumed by a much younger

Figure H-20

Gasoline Tax Rates

Rank	State	Cents per Gallon	Rank	State	Cents per Gallon
1	Connecticut	39	25	Utah	19
2	Rhode Island	28	28	Arkansas	18.5
3	Montana	27	29	Arizona	18
4	Nebraska	26.4	29	California	18
5	Idaho	25	29	Kansas	18
6	Hawaii*	24.8	29	Mississippi	18
7	Nevada	24	29	New Hampshire	18
7	Oregon	24	29	South Dakota	18
9	Wisconsin	23.7	35	Virginia	17.5
10	Maryland	23.5	36	Missouri	17
11	Delaware	23	36	New Mexico	17
11	Washington	23	38	Alabama	16
13	Colorado	22	38	Oklahoma	16
13	Ohio	22	38	South Carolina	16
15	North Carolina	21.7	41	Indiana	15
16	Massachusetts	21	42	Kentucky	15
17	West Virginia	20.5	42	Michigan	15
18	District of Columbia	20	42	Vermont	15
18	Iowa	20	45	Florida	12.5
18	Louisiana	20	46	Pennsylvania	12
18	Minnesota	20	47	New Jersey	10.5
18	North Dakota	20	48	Wyoming	9
18	Tennessee	20	49	Alaska	8
18	Texas	20	49	New York	8
25	Illinois	19	51	Georgia	7.5
25	Maine	19			

**Gasoline tax rates vary by county.*

Source: Commerce Clearinghouse.

population group — explains why more border crossing occurs for purchases of beer than for liquor.

Taxes on these selective goods tend to be regressive. Based on spending reported in the Consumer Expenditure Survey, alcohol taxes are proportional to $30,000 of

current income and slightly regressive for higher income levels. Tobacco and gasoline taxes are regressive across the entire current income spectrum.

A major concern in the District is whether the selective sales tax rates are too high. Dropping consumption levels for the taxed commodities are indicative of greater evasion, potential problems with administration, and consumers shifting their purchases outside of the District. Rates that are competitive with Maryland's and Virginia's could encourage purchase of taxable commodities in the District, help District merchants, and potentially cost little or no revenues.

Structure of the sales tax base

Decisions on the best tax structure involve weighing the relative importance of several goals and making the appropriate trade-offs. The goals for the tax system include:

1. The tax structure must raise necessary revenues. In fact, this is the reason why almost all taxation occurs.[23] A tax system that is perfect on all other grounds, yet does not raise the needed revenues, will almost surely fail. The appropriate amount of revenues will vary across state and local governments based on the demand for publicly provided services and other factors.
2. The tax structure should be equitable in terms of both horizontal and vertical equity.
3. The tax structure should be efficient. An efficient structure has minimal effects on the decisions of business firms and individuals. When the tax system distorts decisions, it should be in ways that encourage economic development or achieve other public policy goals.
4. The tax system should be low-cost for public-sector administration and for private-sector compliance. Resources devoted to administration are not available for delivering desired public services, and compliance activities raise taxpayer and business costs.
5. Taxes should be exported to nonresidents of the District to the extent possible. The well-being of District residents will be increased if the tax burden can be transferred to nonresidents.
6. The tax system should be well accepted by residents and businesses. This means it must be constitutional and publicly supported.

These six goals often will conflict. For example, the factors that make a tax good for administration often make it bad for compliance. Characteristics that enhance equity often harm economic development or economic efficiency, and so on. Thus, the best tax system is likely to vary across areas.

This section begins with a conceptual discussion of the sales tax base in the context of the goals described above. The conceptual discussion is followed by examination of the appropriate tax policy for a number of categories of transactions.

A CONCEPTUALLY SOUND TAX

This discussion of a conceptually sound tax base assumes that the intent is to tax consumption. However, as originally enacted, sales taxes were levies on purchases of tangible personal property by both individuals and businesses, not taxes on all consumption. Thus, the tax structure described here is an attempt to take a tax of convenience and convert it into a more conceptually appealing base.

All purchases by households are final consumption and are appropriately targets for sales taxation. This should include all purchases of both goods and services. The consumption value should be taxed, whether the good is a house to be used over many years (in which case the tax should be paid as the commodity is enjoyed) or is food to be used up immediately. A pure consumption tax would have in its base the value of consumption for which payments are made and for which benefits are received in kind.

The sales tax liability should not be determined by the vendor's legal status. Both sales by for-profit firms and sales by government nonprofit firms belong in the consumption base.[24] Taxation of government sales requires careful consideration. In considering this point, it is best to think of governments as public producers, much as business firms are private producers. Parks and recreational facilities, bus transportation, and water and other services are examples of services provided by governments. Applying the sales tax on the sale of government services to households is appropriate, as the tax conceptually is being levied on consumption (even if the tax is legally on the seller), and whether the service is provided privately or publicly is immaterial. The selling government agency is merely collecting the tax for remittance to the taxing authority; the consumer is the intended taxpayer. This concept is broadly accepted for many government sales of commodities, such as when a state university sells a soft drink, but has been applied infrequently to other government sales of services. Similar arguments can be made for levying the tax on sales by nonprofit firms. However, it may be undesirable to levy the tax on a service that has a price, but which is financed mostly with tax revenues because the tax cannot be levied practically on the value of tax-financed services.

In sum, a consumption tax should be levied on:

- all household consumption regardless of where purchased (in state, out of state, via mail order, through electronic merchandising, etc.);
- all household purchases, regardless of what source of income finances the purchases (e.g., food stamp income, social security income, labor income, etc.);

- all household purchases, regardless of the vendor (e.g., government, hospitals, nonprofit enterprises, etc.);
- all goods and services (e.g., food, health care, clothing, etc.); and
- no intermediate sales to government or business.

It should be noted that a retail sales tax is a cumbersome means to create a pure consumption tax because vendors sell to different levels in the production chain and many decisions revolve around which sales constitute final consumption. Using a retail sales tax necessitates a pragmatic approach to taxation that balances the different goals for taxation. The remainder of this section evaluates some major deviations of the District's sales tax base from the consumption tax ideal, to determine whether changes in the tax base are desirable.

TAXING BUSINESS WITH THE SALES TAX

The business community is concerned with three dimensions of the sales tax: taxation of purchases by businesses; taxation of sales by businesses; and compliance costs associated with collecting the tax on behalf of the government. This section focuses on the taxation of purchases by business. As already noted, business purchases should be exempt from a conceptually sound consumption tax. Nonetheless, business purchases often are taxed because of:

Revenues. Revenues are probably the most important reason why the sales tax base includes so many business purchases. Taxing business purchases increases the size of the tax base and allows more revenues to be collected with a given tax rate.

The hidden nature of business taxes. Sales tax payments by businesses are hidden from the consumer/taxpayer's perspective. The consumer does not realize that some prices are higher because they reflect the sales tax costs imposed on businesses' purchases.

Administration and compliance. Determining whether a purchase is made by a business or a consumer can be very difficult. For example, both a carpenter and a consumer can go to a hardware store to buy a hammer. Total exemption of business purchases would allow easy opportunities for evasion because the carpenter may be purchasing the hammer for use at home rather than for use on the job. On the other hand, taxation of business purchases creates a number of thorny administrative and compliance problems.

Taxation of business purchases leads to a series of problems including:

Violation of the concept of a consumption tax. Taxation of intermediate transactions distorts the concept of the sales tax as a consumption tax.

Effects on vertical integration. Taxation of intermediate transactions discourages businesses from engaging in practices that otherwise make good business

sense by providing an incentive for firms to produce their own inputs in order to avoid paying sales taxes on input purchases. Smaller firms can be hurt most by this incentive since they may be unable to produce their own inputs and because large firms will have reduced incentives to outsource purchases. For example, a tax on the purchase of temporary labor services can encourage firms to hire permanent employees rather than purchase temporary services on an as-needed basis.

Uneven tax burdens. The sales tax will pyramid when levied at several steps in the production process. The effective tax rate on goods becomes a function of how many business purchases are in the tax base. Thus, horizontal equity is distorted by taxation of business purchases. Further, items such as food and health care are not fully exempt from the tax because some sales tax is implicit in the purchase of goods used in production of these otherwise exempt goods and services.

Economic development. Sales taxation of business purchases raises the cost of doing business in the District. As described above, the location of retailers, manufacturers, and service providers may be distorted as their costs are increased.

Decisions about which business purchases to exempt and which to tax must be based on a trade-off between: 1) the degree of pyramiding and distortions in business practices that the District is willing to accept; and 2) the collection of revenues. Most states and the District use a component-parts rule to make decisions on many manufacturing exemptions. Under a component-parts rule, purchases that become part of the buyer's final product are exempted and other business purchases are taxed. In practice, careful decisions must be made on how to apply this rule, and these decisions vary by state. For example, the purchase of cloth by an apparel factory would be exempt, but the purchase of a desk by the same firm would be taxable. Purchases usually are exempt if the item will be resold.

The District imposes the sales tax on the purchase of manufacturing equipment.[25] There has been a strong trend across the states towards exempting equipment purchases. California, Illinois, Minnesota, and Texas are some of the states that have enacted legislation reducing the sales tax on manufacturing equipment.[26] Many states have reached the conclusion that they do not want to create a disincentive for businesses to locate and invest. The District should consider exempting manufacturing investment, though the exemption would reduce revenues.

TAXING PURCHASES BY THE FEDERAL GOVERNMENT

Sales to the federal government, other states and political subdivisions, and the District are exempt from the District's sales taxes. Government is not a final consumer of goods and services, so government purchases, like business purchases, should be exempt from a conceptually sound consumption tax. In addition, there is a constitutional prohibition against directly imposing the sales tax on the federal government.

Under a properly structured sales tax system, states can collect taxes on some purchases by the federal government. Arizona and South Carolina tax sales to federal contractors operating with a fixed-price contract. New Mexico has been relatively aggressive in seeking to tax sales of services to the federal government by structuring its tax as a business privilege tax, not as a sales tax on consumers.[27] All business transactions are taxable to the seller unless they are specifically exempted. New Mexico does not grant an exemption to sellers of services to the federal government as long as the "first use" of the service is in New Mexico. The federal government has agreed to reimburse service providers with nexus in New Mexico.

Presumably, the District could impose a tax on vendors of goods or services to be used by the federal government in the District. Firms with nexus in the District would be required to pay the tax, even if their headquarters is located outside of the District. The sales tax (or at least the relevant sections) would need to be set up so that the tax is on the vendor, not on the buyer, which would require substantial restructuring of the legal basis of the tax.

Two major problems with imposing a tax on vendors should be considered. First, the federal government could act to prohibit a tax that is effectively on its vendors. The federal government would be particularly likely to act if certain transactions with the federal government, like some services, were singled out for taxation. Second, firms without nexus in the District would be advantaged over firms with nexus, harming the District's economic environment. Indeed, the District may find it difficult to identify taxpayers with nexus, but without a physical facility in the District. The inability to administer the tax on such firms could encourage some businesses to locate outside the District.

The District suffers from the relatively unique problem of housing many international organizations and embassies; the sales tax cannot be collected on many of their purchases. It is possible that the sales tax could be collected on transactions with international organizations in the same manner, if it were structured as a business privilege tax on the vendor.

The idea of imposing the sales tax as a business privilege tax is not unusual. New Mexico is one of 13 states where the sales tax is levied on vendors (Due and Mikesell, 1994). Seventeen states impose the sales tax on the consumer (though it is collected by the seller) and 15 states and the District have taxes that are a hybrid between the two.

FOOD FOR CONSUMPTION AT HOME

Twenty-eight states plus the District exempt food for consumption at home, with Georgia and Missouri being the latest two states added to the list (both states have legislation that will exempt food over time). The District's exemption is complicated because the distinction is not based on where the food is consumed, but how the food is prepared. Food prepared for immediate consumption is tax-

able at a 10 percent rate and snack foods are taxable at the general rate. Otherwise, food is exempt from taxation. The notion seems to be that food taken home is a necessity, but food prepared for immediate consumption and snack foods are not necessities.

Vertical equity is the major justification for the exemption, the argument being that a tax on food places an inequitable burden on low-income households because the purchases are regressive and food purchases are a necessity. Food stamp purchases already are exempt throughout the United States, so the gain in equity from exempting food is smaller than it would appear. Still, low-income households make a considerable amount of taxable food purchases, so there can be some tax savings to this group from exemption. Further, adding food to the tax base would make the sales tax more regressive, since the percentage of income spent on food for consumption at home falls as income rises.

The gains in vertical equity come at the expense of a number of other problems for the sales tax. Horizontal equity is violated, since households with the same income or consumption will be taxed differently based on their decisions, such as whether they eat out or at home. Economic efficiency is distorted because taxes can play an important role in determining consumption patterns. The 10 percent tax paid on restaurant food, versus a tax of 0 percent on food for consumption at home has the potential to significantly distort consumption decisions between these two. Distortions also will occur if people choose to purchase food in other areas because it is taxable in one place but not another. Food sales are taxable in Virginia, so there would be little incentive to go to Virginia if food were taxable in the District; however, food is not taxable in Maryland. Note that per capita food store sales are already low in the District by comparison with sales in the Washington area.

Compliance and administration are greatly complicated by the decisions that must be made concerning what is taxable. Decisions must be made as to whether dog food, soft drinks, potato chips, candy, toilet paper, and so forth are taxable. In many cases, a young clerk working in a convenience store and with no explicit knowledge of sales taxes is placed in the position of making decisions on what is taxable, and numerous errors should be anticipated. Auditing of stores carrying food becomes much more difficult because many of their transactions are exempt, though many of their sales are taxable (Figure H-2, page 265).

Failure to tax food makes the remaining sales tax even more unstable, because the purchase of food for consumption at home is one of the most stable components of the potential sales tax base.[28] The sales tax volatility that was evidenced by the elasticities shown in Figure H-11 (page 276) arises in part because food is not in the tax base.

Because of these problems, economists frequently have recommended that states tax food for consumption at home, and provide a credit against the income tax for

the sales tax implicit in food purchases. The District followed this policy from 1970 to 1976. The credit was eliminated and food for consumption at home was exempted from the tax in 1976. A decision to tax food purchases and grant an income tax credit often is believed to offer a number of advantages, including:

1) Sales tax administration is eased because there are fewer decisions regarding what is taxable.
2) The credits only are given to residents, so nonresidents pay the tax on food purchases.
3) The sales tax will be more stable.
4) The sales tax will be more horizontally equitable and will cause fewer distortions in decisions.
5) Additional revenues will be collected in total if the credit amount is based on food purchases made by lower-income households, with the same dollar value of a credit granted to all income taxpayers.

The two disadvantages of the credit approach are that an income tax return must be filed to get the credit (though the credit could be set up as refundable even if no tax is otherwise due), and taxpayers receive the return of their sales tax revenues in a lump sum at the year's end.

For the District, the major advantage of taxing food and granting an income tax credit would be reduction of the compliance problems of determining what food purchases are subject to the sales tax. Otherwise, the credit approach appears less advantageous in the District than it would be in many other areas of the United States because the amount of food sales that is not taxed is relatively small. Data from the 1992 Census of Retailing are available for sales from food stores in the District (including grocery stores, convenience stores, and so on). Assuming that 50 percent of sales in such stores are already taxable or could not be taxed (either as nonfood items, food for immediate consumption, or food stamp purchases), the District would have generated about $18.5 million from taxing such purchases in 1992.[29] Little of this revenue would be gained on net after an income tax credit was granted.

SNACK FOODS

The District taxes snack foods, including many foods sold through vending machines, at 10 percent. Expansion of the sales tax to snack foods was made to raise revenues. A further justification is that snacks are food for immediate consumption and should be taxable to be consistent with the taxation of other food for immediate consumption. There is a problem in deciding which food are snacks, but the problem arises because food for consumption at home is exempt, but food for immediate consumption is not. A line must be drawn in deciding what food is taxable and what food is not,

regardless of whether snack foods are taxable, so there are no administrative savings from exempting snack sales. If snack foods are exempt, but not other foods for immediate consumption, vendors still must decide which foods are exempt. The only solution to the problem of making decisions on what food is taxable is either to tax all food or to tax no food (and even here there could be some decisions to make). Because it is very unlikely that the District wants to cease taxing restaurant food sales, the taxation of other food for immediate consumption, including snacks, may provide the most effective means of having parallel treatment of similar items.

SERVICES

The most frequently debated sales tax base issue during the decade beginning in the mid-1980s was the taxation of services.[30] States routinely considered broad expansion of their base to services, but such extensive taxation normally was rejected. Hawaii, New Mexico, and South Dakota already had, and continue to have, broad taxation of services. Other states that considered significant expansions either rejected it (such as Indiana and Texas) or passed base broadening and later repealed it (such as Florida and Massachusetts). In the end, the norm, as in the District, is to include a few select services in the base, but to stop short of major extensions of the base to all categories of services. From a revenue perspective, the most important services for taxation — including health care, construction services, and professional services — continue to be excluded from the base in the District, as well as in most states.

Which services should be taxed?

Decisions on whether to tax services should be made separately for each specific service, but beginning with the basic principle that services consumed by households should be taxed. Exceptions from this principle need to be made because of equity, administrative convenience, or economic effects. Health care often is exempted based on the belief that it is inequitable to tax misery or misfortune. But it is harder to make a case based on equity for exempting certain types of cosmetic surgery or some orthodontic services. Administrative and compliance costs may be a reason some services are exempt, such as services that are produced mostly outside the District for consumption inside the District. Services that are employed mostly by businesses may be exempted because the administrative costs of separating business uses from consumer uses are large. Economic effects are probably the key reason for exempting many services. The concern is that taxing services may encourage movement of their production outside of the District.

A list of some services that could be taxed, and the associated revenues that would have been generated in 1992 at a 5.75 percent tax rate, are listed in Appendix H of the Summary Report.[31] The number of states imposing the tax on different services also is listed in Appendix H. The assumptions are that no firms move to avoid the

tax and that consumers continue to purchase the same amount of services after the tax is imposed. Revenues would be lower, to the extent that service-providing firms responded to imposition of the tax by moving or that consumers purchased fewer services. Legal services offer the largest potential source of revenues. The revenues from legal services would be more than one-fourth as large as total current sales tax collections. Public relations and management consulting, various types of construction services, and medical services also offer significant revenue potential.[32]

Given all of the goals for taxation, the set of additional services that would be most viable for taxation includes: construction services, barber shops and beauty parlors, admission to cultural events, interior design and decorating, personal instruction, membership fees in private clubs, coin-operated laundry and dry cleaning services, massage services, and carpet and upholstery cleaning.

Guidelines for taxing services

Some basic guidelines should be followed if services are taxed in the District. First, services should be taxed on a destination basis. This means that services should be taxed where they are enjoyed, not where they are produced. Destination-based taxation of services is consistent with the sales tax treatment of goods, but a number of states have failed to follow this guideline in the case of services. For example, Hawaii has traditionally taxed a number of services on an origination basis (services produced in Hawaii are taxed, regardless of where they are consumed) and Massachusetts passed (and then repealed) expansion of the base to some services on an origination basis.

Destination-based taxation is necessary if the tax is structured as a levy on consumption. Also, a destination-based tax should have no implications for the location of production. There is no reason to move production as a result of a destination-based tax because there is no tax on services produced for use outside the District and the tax on services used in the District is the same regardless of where the service is produced.

The problem is that the Office of Tax and Revenue may be unable to collect a destination-based sales tax on many services, either because the vendors do not have nexus in the District or because the District is unable to identify the service providers. For example, if legal and accounting services were taxable, District residents may be able to purchase services from outside the District without the Office of Tax and Revenue being able to collect the tax revenues. Given this problem, the production of many services in the District could be harmed by their taxation, even if the intent is to use a destination-based tax. The small geographic area of the District, its close proximity to Maryland and Virginia, and the ability to produce many services far from the point of consumption may make it particularly easy to move the production of many services outside the District.

Second, sales taxes on services should be structured to limit the extent of business taxation. Computer and many other services are used more heavily by businesses than by consumers. Taxation of these services without appropriate exemptions will raise the costs of operating in the District for firms that are intensive users of computer services, and this could make the District a less competitive place to produce. Also, taxation of services used by business could alter firms' behavior. For example, if the purchase of accounting services is taxable, businesses could hire their own accountants and pay no tax on the services, rather than buy taxable services from accounting firms.

Taxation of business purchases can be limited by designing exemptions properly. One effect of the exemptions is that the additional revenues from taxing services would be much less than many people anticipate, and could be less than the amounts listed in Appendix H of the Summary Report. Two types of exemptions should be considered: exemptions for the purchase of tangible goods used by service producers and exemptions for the purchase of services used by tangible goods or service producers. However, exemptions are seldom given, in the District or elsewhere in the United States, for tangible goods used in production of services. The reason is that taxation of the inputs is viewed as an indirect way of taxing some of the services' value, since most services are not taxed otherwise.

If services are to be taxed, exemptions should be granted for some inputs used in their production. Developing an exemption policy for services that is truly parallel to that for manufacturing and sales for resale is difficult because exemptions normally are granted to manufacturing inputs that become component parts of the manufactured good. The physical tests applied to determine whether an input becomes a component part cannot be applied to services, since the services vanish upon use.

A direct use rule should be applied to exempt inputs used in the production of services. Under the direct use rule, exemption would be granted if the input is used directly in the production of the service. For example, a computer used in designing architectural services would be exempt, but one purchased to prepare the firm's tax returns would be taxable. The direct use rule would reduce the cost of producing services in the District and would reduce the effects that taxes have on how business activities are organized. However, the direct use rule would reduce significantly the revenues that are obtained from service producers.

Also, appropriate exemptions should be granted for taxable services used in production of tangible goods or services. Again, physical tests that are used to identify component parts are likely to be meaningless in the case of services because, by their nature, most services immediately vanish as they are used. Exemptions for services used in production of other services could be particularly important. For example, exemptions should be granted if one telecommunications firm buys telephone time for resale. Exempting the purchase of services used as inputs would lower the costs of producing in the District and reduce pyramiding of the tax, but would lower revenues.

ELECTRONIC COMMERCE

Taxation of electronic commerce has replaced taxation of services as the most frequently discussed sales tax base issue. The Committee on State Taxation has identified four types of taxable events for electronic commerce: 1) the content that passes through electronic commerce; 2) the hardware and software used to produce electronic commerce; 3) the telecommunications used to transmit electronic commerce; and 4) access to electronic commerce and the Internet. Taxation of hardware and software and taxation of telecommunications used in electronic commerce raise no new issues and are not discussed in this section, but taxation of the other two taxable events is discussed here.

As a general rule, the tax code should be amended to tax electronic commerce, rather than trying to apply existing legislation that was written for a different era. It is important that the Office of Tax and Revenue follow changing business practices to identify areas where laws should be amended, but it is unreasonable to expect that the District (or any state) will be able to keep its tax code current on the rapidly changing electronic commerce industries. Therefore, new tax provisions should be written broadly enough to allow the Office to administer the intent to tax appropriate activities, without the need to pass laws every time new services, and new ways to deliver services, are identified.

Content. Content refers to activities sold or delivered through electronic commerce. Three principles should be applied to taxation of content. First, functionally equivalent items sold through electronic commerce should be taxed in the same manner as items sold through other means, and functionally equivalent items that are exempt if sold through other means should not be taxed. Thus, books that are taxable when purchased through a District bookstore also must be taxable when bought through electronic means. Canned software that is taxable when purchased in a store should be taxable when downloaded through the Internet. Similarly, health care services that are exempt when purchased directly in the District should be exempt when purchased through electronic commerce. Naturally, this rule leaves considerable room for interpretation of what are functionally equivalent goods and services.

Second, the tax should be based on destination. Third, as discussed for services, a direct use rule should be allowed for the purchase of inputs by producers of electronic commerce that are located in the District.

Access. Charges for access to the Internet should be taxable as a service, particularly if sold to consumers. The Federation of Tax Administrators (March 1997) reports that 16 states (plus the District) tax Internet access through a sales or gross receipts tax. Access to the Internet is taxed in the District under the definition of data processing and information services, though the Internet is not directly mentioned in legislation. As noted above, it is generally better to write new legislation to tax electronic commerce.

The bundling of Internet access with other services is the problematic aspect, since some of the bundled services may be taxable and others may not. The options are to tax the entire bundled transaction, to tax none of the transaction, or to apportion the taxable and nontaxable components of the transaction. Thirteen states tax proprietary services sold by business over the Internet. The rule normally followed for sales taxes is that an entire event is taxable if any portion is taxable. In the case of access, leaving the transaction untaxed when bundling is involved invites business to bundle to avoid the tax, but taxing all of the transaction discourages bundling. The best practice would be to tax the entire event unless the access provider can demonstrate that a significant portion of the transaction otherwise would be nontaxable. Then limited apportioning of the gross receipts should be permitted.

PREPAID TELEPHONE CALLS

The District and several states recently have extended the sales tax to prepaid telephone cards.[33] Effective October 1, 1997, sales of prepaid telephone cards are taxable at a 9 percent rate in the District. The two obvious choices are to tax the long-distance telephone calls directly, as is done with other telephone calls, or to tax the prepaid cards. Both should not be taxable, since this would represent double taxation. However, it would be appropriate to tax the markup (in excess of the charge billed by the long-distance carrier) included in the price of prepaid cards if telephone calls are taxed directly.

The District's decision to tax prepaid telephone cards at point of sale means the tax structure varies based on the means through which telephone calls are paid. There are administrative advantages to collecting the tax at the point of purchase, though the advantages are the same that normally arise from collecting a tax at the source rather than at the point of use. Taxing the prepaid card provides significant avoidance opportunities, as sale of the cards will be shifted to states that do not tax such sales. For example, AT&T or MCI could sell prepaid telephone cards from an Oregon subsidiary and legally avoid a tax on use of prepaid cards in other places. Experience with selective sales taxes appears to evidence that consumers are able to engage easily in tax avoidance by planning where to make purchases. As a result, taxing telephone services rather than prepaid cards appears to be the better long-term strategy. Based on the Supreme Court decision in *Goldberg v. Sweet* (1989), calls can be taxed if they are made from the District and billed in the District (and this presumably means even if they are billed to a prepaid telephone card).

PURCHASES AND SALES BY NONPROFIT ORGANIZATIONS[34]

Many states allow some form of exemption for either purchases or sales by nonprofit organizations. The District allows exemptions both for the purchase and the

sale of items by nonprofits. Such exemptions are permitted based on the expectation that a philanthropic purpose is being served by the organization or in an effort to exempt religious organizations. The philanthropic organization is expected to provide services that otherwise might need to be delivered by the government (e.g., food assistance to the poor) or that might result in significant positive externalities (e.g., providing certain types of health care). However, in many cases, nonprofit organizations fail to provide important philanthropic benefits.

Exemption for purchases by nonprofits can be justified only in cases where a significant public purpose is achieved by the exemption, since tax exemption results in a subsidy for the nonprofit firms. One approach would be to allow exemption only if a significant public policy objective is being met by the nonprofit activity.

Exemptions for regular sales by nonprofits are even more difficult to justify.[35] The general notion is that the tax is expected to be paid by the purchaser, not the seller, so the exemption is a way to encourage the purchase of goods and services from nonprofits, but is not a direct subsidy to their activities. The nonprofits frequently are in direct competition with for-profit firms, which can be significantly disadvantaged by the exemption. Again, unless a strong public purpose is achieved by the exemption, the District should consider limiting the availability of the exemption to few, if any, nonprofit vendors. Nonprofits engaged in casual sales should remain exempt along with others that infrequently sell goods and services.

Illinois provides an example of a strategy that could be adopted for exempting sales by nonprofits. Sales by exclusively charitable organizations are exempt under three circumstances: 1) the sales are to members for charitable purposes of the organization; 2) the sales occur infrequently, are made by the organization's members with the proceeds all going to charity, and the sales are not in competition with private businesses; and 3) the sales are occasional, occurring no more than twice per year.[36] This policy would limit the breadth of tax-exempt sales by nonprofits relative to the District's current practice.

Administration and compliance

The framework for this study did not afford an opportunity to examine directly the techniques for administering the tax or the extent of compliance. Nonetheless, the apparent break in the relationship of sales taxes and economic activity can be viewed as indicating that compliance has declined in recent years. Several recommendations that could help the District enhance its capacity to collect the sales and use taxes more effectively are made here.

MULTIPLE RATES

All states' sales taxes require businesses to make a continuous set of decisions about what is taxable. The existence of multiple tax rates in the District often requires firms to make two types of decisions when complying with the tax: which sales are taxable and at what rate are they taxable? For example, a buyer could purchase aspirin, a prepared hot dog, a package of hot dogs, and beer in a convenience store. The clerk would need to know that aspirin is exempt (nonprescription drugs), prepared hot dogs are taxable at the general rate (food for immediate consumption), packaged hot dogs are exempt (food for consumption at home), and beer is taxable at 8 percent. Figure H-7 illustrates the percentage of sales that are taxable at different rates for selected industries. The capacity of vendors to comply with this degree of complexity will differ by firm, but in many cases there is considerable turnover of clerks and many mistakes can be expected. The complexity also allows room for many judgments by taxpayers, and a tendency to decide in taxpayers' favor could reduce revenues significantly. The limited capacity of the Office of Tax and Revenue to undertake audits means that few of the problems may be identified.

The sales tax could be structured to have one rate. A single rate of 7.6 percent would be necessary to collect current revenues, assuming that the higher rate on transactions currently taxed at the general rate and the lower rate on other transactions caused no net change in sales. However, the likely outcome is that some reduction in sales would occur, so the rate may need to be a little higher than 7.6 percent. All sales could be taxed at 5.75 percent, but this would cost $116 million ($3.3 million for alcohol sales, $12.4 million for parking, $45.9 million for transient accommodations, and $54.4 million for restaurants).

AUDITING AND IMPROVING COMPLIANCE

In addition to other explanations, poor collections during the 1990s are an indicator that compliance with the sales tax law has weakened in recent years. It was not possible to study compliance with the tax law as part of this report; however, discussions were held with staff in the Office of Tax and Revenue. One possible explanation for weaker collections is that resources devoted to auditing taxpayers, particularly resources used for audits that involve traveling, have been reduced. Consideration should be given to determining whether compliance with the tax code, and overall administration of the sales taxes, is at acceptable standards.

INFORMATION SHARING

Better collection of use taxes will increase overall revenues. However, collection often relies on voluntary reporting by the consumer, who in many cases may not know the tax is due. In some situations, such as with many big-ticket items, the

commodities often are shipped into the District with no sales tax paid in the state where the good is purchased. The sales tax will not be collected for the District either if the vendor does not have nexus in the District or if the shipment is made by common carrier. The District has limited capacity to audit firms that have no nexus to determine the identity of purchasers.

An information-sharing arrangement with other states, and particularly with Maryland and Virginia, offers the potential to identify District businesses and residents with use tax liabilities. Through audits, the other states can identify District purchasers of sales-taxable commodities and report the information to the Office of Tax and Revenue. The Office then can seek to collect use tax revenue from the residents. Similar arrangements exist between a number of other states. The District already cooperates with the Multistate Tax Commission in some multistate tax audits.

INFORMATION SYSTEMS

The Office of Tax and Revenue has two parallel information systems that are very poorly coordinated: the tax collection system and the financial system. The tax collection system receives, analyzes, and audits tax returns and other information provided by taxpayers. The financial system receives and deposits the tax funds. In many cases, the tax funds initially are received by the tax collection system and then passed to the financial system. In other cases, the revenues are transferred directly by the taxpayer to the financial system without passing through the tax collection system. Problems arise because of inconsistencies between the two systems, making it difficult to determine taxpayer arrears. Information from the financial system flows slowly to the tax system, often in an aggregate form, so that comparisons of taxpayer liabilities with payments are difficult to make. Differences in data between the two systems occur because of human errors made in recording payments when checks initially are received in the taxpayer system or because the payment initially is received in the financial system and the data do not move promptly to the taxpayer system.

The existence of the two systems means that the extent of arrears to the tax system is always uncertain. Taxpayers can file a return that is accompanied by no payment or by an incorrect payment, and the tax collection system is often unaware of the discrepancy for a considerable period of time. In some situations, the money is collected eventually as underpayments are identified. However, the money is lost when firms go out of business before the shortfall is discovered. A more effective information system would allow the District to collect some of the tax liability while it still can be obtained.

A new financial information system is being developed for the District, but reportedly, the new system does not correct the problems of fully linking the two systems. The new system should be altered to allow for complete and timely inte-

gration of the information systems to allow the Office of Tax and Revenue to collect effectively the taxes due.

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Endnotes

[1] Vermont was the most recent state to accept a sales tax (in 1969), leaving only Alaska, Delaware, Montana, New Hampshire, and Oregon without a broad-based sales tax.
[2] Portions of the summary are based on Commerce Clearinghouse (1997).
[3] Motor vehicle sales in the District are subject to the titling tax and are not included in the sales tax base. This reduces the District's sales tax base relative to other states.
[4] Only seven states tax any professional services, and in two of these cases (Delaware and Washington) a special business tax is imposed rather than a sales tax.
[5] Due and Mikesell (1994), pp. 53–54.
[6] Many states permit local governments an option on the specific local tax rate.
[7] Alaska has no state sales tax, but allows local sales taxes.
[8] The effective tax rate is the weighted average rate.
[9] The time period since 1982 is used since it immediately follows the high inflation of the 1970s and the recessionary environment of 1980–1982.
[10] The major reason for the difference in the tax elasticity and tax buoyancy since 1990 is the reduction in the tax rate during 1994 from 6 percent to 5.75 percent.
[11] Service expenditures may be growing more rapidly in part because the price of services is growing more rapidly than the price of goods, and not only because the quantities of services are increasing more rapidly.
[12] Fox and Campbell (1984).
[13] Some of the differences in elasticities may result from the methodology used to adjust revenues for base and rate changes. The revenue consequences of base changes were calculated using revenue estimates made by the Office of Tax and Revenue prior to implementation of each change. Data used in making such estimates are always very limited and the effects of tax changes on behavior are difficult to predetermine. Thus, the department's estimates should be viewed as approximations, and the elasticity calculations are in error to the extent that the estimates are imprecise.
[14] The negative elasticity indicates that revenue growth was negative, but income growth was not.
[15] Caution should be exercised in applying Ring's findings too precisely because the data are for 1979 and the methodology should be seen as providing a broad indication of business and nonresident liabilities.
[16] Expenditure data for the southern region were used to approximate the District's expenditure pattern. A single expenditure category in the CES may include purchases that are taxable and purchases that are nontaxable. For this reason, in some cases it was necessary to assume that a certain percent of the expenditures in a particular category is taxable.

[17] The percentage spent for sales-taxable commodities ranges from 37.7 percent (by households earning between $5,000 and $9,999) to 45.2 percent (by households earning between $20,000 and $29,999).
[18] See Mark, McGuire, and Papke (1997) for further discussion of economic development effects.
[19] Fox (1986) and Mikesell (1970).
[20] The selected area includes the District of Columbia; Montgomery and Prince George's counties in Maryland; Arlington, Fairfax, and Prince William counties in Virginia; and Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park cities in Virginia.
[21] Per capita retail sales are lower in the District than in the selected area across all categories except for eating and drinking places, drugstores, and miscellaneous retailers.
[22] The sales tax rate is the District general sales tax rate divided by the weighted average of the Maryland and Virginia tax rates. The weights are the percent of retail employment in the Virginia versus Maryland portions of the selected area.
[23] Taxes are occasionally imposed for some other purpose, such as regulating pollution.
[24] The federal government cannot be required to collect tax on its sales.
[25] The sales tax is not levied on rentals of manufacturing equipment, which creates inconsistent treatment.
[26] Illinois exempts the purchases and also allows a credit against the corporate income tax equal to the sales tax that would be due if not for the exemption.
[27] The discussion of New Mexico is based on a telephone conversation (August 20, 1997) with Laird Graeser, director, Office of Tax Research and Statistics, New Mexico Department of Taxation and Revenue.
[28] Dye and McGuire (1991) find that the standard deviation of the growth in expenditures for recreational services (2.04) is the lowest, followed by food for consumption at home (2.21). By comparison, the standard deviation for household utilities is 6.29.
[29] Food purchased by District residents for consumption at home was estimated to be $32.8 million using the Consumer Expenditure Survey. Some of this amount already would be taxable in the District (e.g., snack foods and some take-out food). Nonetheless, the remaining difference in estimates between the CES and the Census of Retailing suggests that significant food purchases are made outside of the District.
[30] See Fox and Murray (1988), Hellerstein (1988), and various chapters in Fox (1992) for discussion of sales taxes on services.
[31] Revenues were estimated by multiplying the estimate of gross receipts from the appropriate economic census times 5.75 percent. Here it is assumed that the tax base would be equal to one-half of gross receipts.

[32] Many construction materials already are taxable, so the revenues could be significantly less than is reported here.
[33] Fox and Murray (1997).
[34] Mikesell (1992) for further discussion of purchases and sales by nonprofit organizations.
[35] The District and 14 states generally allow exemptions for sales by nonprofits (Mikesell, 1992).
[36] Commerce Clearinghouse, *State Tax Review*, August 11, 1997.