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# The Development, Forms, and Yields of State Sales Taxes 

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The Development, Forms, and Yields of State Sales Taxes

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## Abstract

The sales tax is the largest single source of state tax revenues, yielding $34 \%$ overall of state tax revenue, $35 \%$ in the states using it. State and local governments combined obtain $23 \%$ of their revenue from sales taxes, but with a wide range by state.

No additional state has introduced a sales tax since 1969; in 1993, voters in Montana and Oregon decisively defeated sales tax proposals.

Recent studies confirm the long-standing view that sales taxes are progressive relative to income, under the assumption that primarily such taxes are reflected in higher prices, although it is recognized that there are exceptions to this assumption. The picture of distribution of burden by income group is complicated by the extensive application of the tax to production inputs. The tax is clearly less regressive in terms of lifetime income, but recent studies suggest that it is not proportional.

There has been a steady growth in the number of firms registered under sales taxes.


#### Abstract

The sales tax is the most important tax, revenue wise, in the states today, as it has been for several decades. 1 In use in 45 states (and in one additional, Alaska, at the local level only) it yields 34 percent of total state tax revenue $(35 \%$ in the case of the states using the tax) and 11 percent of local government tax revenue. The yield is exceeded by that of state personal and corporate income taxes combined, but exceeds the figure of either income tax, considered separately. For states and local governments combined, sales taxes yield about 23 percent of total tax revenues, compared to 32 percent for the property tax.


## DEVELOPMENT OF THE SALES TAXES

The sales tax was initially a desperation measure, borne out of inability of the states in the depression years of the 1930 s to finance basic functions from existing sources, and the pressure on the states to transfer the property tax to the local governments. Prior to 1930 , the states had relied primarily upon property taxes, some excises, various business taxes, and in some states, income taxes. When the state of Mississippi converted its low rate business tax into a 2 percent sales tax in 1932, it introduced a new era in state taxation--and essentially a new form of tax. While sales taxes had been used in a number of countries including Canada, they were applied either at preretail levels, or more commonly to all transactions at all or most stages of

[^0]production and distribution. The only predecessors in the United states were business occupation taxes based on sales or purchases in several states during the previous century. Primarily seeking to reach merchants' stocks of goods, the rates were low and the yield small. A newer 1921 tax in West Virginia was similar to these early business occupation taxes, applying at a low rate to all businesses at all stages, at a low rate, as a business occupation tax.

The Spread of the Taxes. With the success of the Mississippi levy, despite strong protests by retailers, the use of the tax spread rapidly. Between 1933 and 1938,26 states plus Hawaii imposed the tax, though five allowed it to expire after one or two years (all later reinstated sales taxes).

The reasons for the introduction of these taxes varied somewhat among the states but fell into one general pattern. As incomes and expenditures fell, the depression reduced revenues from other taxes at the same time that relief needs were increasing. Participation in many federal programs of the period necessitated additional state expenditures. Concurrently, the serious financial difficulties of the local governments, greatly aggravated by the depression, resulted in a tendency both to increase state grants to the local governments, particularly for education, and to reduce state reliance on the property tax. Most states had few major sources that could yield additional revenues. Income taxes, particularly, reflected the decline in personal incomes. The sales tax, with its low rate, large yield, and relatively painless collection, was especially attractive.

## Postwar Taxes

After Louisiana enacted a sales tax in 1938, no other state levied the tax until 1947, and Louisiana reinstated in 1942 the tax repealed in 1940. The prosperity and the shortages of manpower and material resulting from the war that reduced state and local expenditures relieved the financial pressure on the states and gave rise to budget surpluses. None of the existing sales taxes were repealed.

A slow trend toward renewed adoption of sales taxes began with the introduction of the tax in Tennessee in 1947. By 1963, ten additional states had imposed the tax and three had reimposed it, bringing the total to 37. In 1965 and 1966, New York, New Jersey, and Idaho reimposed the tax after a long lapse, and by 1969 five additional states had introduced it, bringing the total to 45. No sales tax that has remained in force for at least two years has ever been eliminated (except for the temporary repeal of the Louisiana tax in 1940) and none of the post war taxes have been repealed, except temporarily in Pennsylvania (1955-1956).

The forces leading to the postwar taxes were somewhat different from those responsible for the prewar taxes. Increased demands for state expenditures, especially for education, outran the revenues from existing levies. The property tax had become almost exclusively a local tax, and states were reluctant to introduce or raise income taxes, given the very high Federal income tax rates of the period. Thus slowly the new sales taxes were introduced, the last that of Vermont in 1969. Most states were not in serious financial difficulties in the 70 s and 80 s ,

TABLE 1.1

Year of Introduction of State Retail Sales Taxes to May 1993

aYears are those in which taxes became effective.
bawaii did not become a state until 1959.
${ }^{c}$ Imposed first on selected luxury goods in 1936.
and general opposition to increases in taxation became stronger.
Table $1-1$ shows the year of introduction of the sales taxes.

## States Without Sales Taxes

Five states are not using a sales tax in 1993, but in Alaska substantial use is made of the sales tax at the local level, with rates comparable to state rates, thus in a sense precluding state use, and the state has benefitted from high oil revenues.

The other four states, Oregon, Montana, Delaware, and New Hampshire, have only about 2 percent of the population of the country; thus 98 percent of the population is covered by state or, in Alaska, local sales taxes. Oregon has considered the tax a number of times, and in 1992 the governor recommended the tax--a move that has played a part in an attempt at recall. The bias in the state against a sales tax is incredibly strong--though passage of a constitutional amendment in 1990 restricting property tax levels adds to the need for a sales tax. Both property and income taxes are among the highest in the nation, primarily because of high rates, ${ }^{1}$ the state ranking sixth in income tax per capita, fifth in property. A proposal for a 5 percent sales tax to financing education, and eliminating the property tax on houses, was defeated November 9, 1993, the ninth time in 60 years that Oregon voters have turned down a sales tax proposal. Montana has also considered the tax on several occasions but without action, and on June 8, 1993 voters rejected a 4 percent sales tax proposed by the governor.

[^1]Delaware and New Hampshire are in a somewhat different situation. Both are small states, whose retailers benefit greatly from the absence of sales tax, Wilmington at the expense of Maryland and Pennsylvania, New Hampshire at the expense of Vermont and Massachusetts.

New Hampshire has a long-standing bias against all taxes; it has long been the only state having neither a sales tax nor a general income tax. But both states are experiencing serious financial problems. Prediction of possible action--after decades of avoidance of use of the tax--is impossible.

Support for a sales tax in most states came mainly from the state administration, which sought additional revenue to meet expenditure demands in the face of inadequate revenues from other sources. Support also came from business groups (other than retailers) who feared higher income and property taxes, from farmers seeing property tax relief, and school officials and teachers who sought additional funds.

Institutional opposition came primarily from labor groups objecting to the regressivity, and from retailers concerned about compliance costs and adverse reactions by customers.

The most recent attempt to introduce a state sales tax was in Oregon. The Voters' Pamphlet, issued by the Secretary of State's office (Salem: 1993) presented arguments of various groups for and against the tax. As noted, the proposal would have allocated the revenues entirely for education and would have eliminated school property taxes for homeowners. The principal support came for various education groups-teachers and parents' organizations, some business groups stressing the
need for funds for education, and some farm groups interested in property tax reduction.

The opposition stressed several aspects. Part of the complaint centered around the claimed excessive spending for schools--high teachers' salaries, etc., and not the sales tax per se. The chief argument against the tax was on the usual basis of regressivity, by labor unions, arguing that this was a tax favored by "big business," senior citizens groups, and some farm groups. Stress was placed also on the effect the tax would have in eliminating the substantial cross border shopping into Oregon from neighboring states, mainly Washington, and the nondeductibility of the sales tax for Federal income tax purposes.

SHIFTING AND DISTRIBUTION OF BURDEN OF A STATE RETAIL SALES TAX

The assumption is generally made that a state retail sales tax is borne by the consumers in the state, with a limited amount being "exported" to out of state consumers who buy in the state and pay sales tax ${ }^{1}$ in proportion to their purchases of taxable goods and services, as retailers raises prices by the amount of the tax. Clearly this is an oversimplication. It is not the purpose of this section to develop a detailed analysis of shifting and incidence, but to indicate some major influences on shifting.

[^2]First it must be noted that any tax has potential effects on both the use-of-income side and the sources-of-income side. The former side involves the effects on the consumption expenditures as the tax is reflected in higher consumption goods prices; the latter, the effects of the tax and reactions to it on the prices of factors in production (e.g., wages)--the sources of income.

Shifting of the tax from the firms from which the tax is collected to others is influenced by a number of considerations.

First, the nature of competition in retail markets, which determine the ability of firms to raise prices in response to a tax on their sales.

Second, the elasticity of demand for goods and services at the retail level, both of overall consumption expenditures and of expenditures on particular commodities.

Thirdly, the universality of the tax, both in terms of consumption purchases and geographically.

Fourth, the extent to which the tax is confined to consumption purchases rather than including production inputs--the purchase of goods for use in production activity.

Fifth, the requirements of the tax legislation with regard to the treatment of the tax--whether shifting is required by law and whether or not the tax must be shown separately from the price.

## The Immediate Reaction to the Tax

Retail markets are not perfectly competitive; if they were, there would be no immediate change in prices as firms do not set prices; shifting could occur only as supply fell off because the optimal output
levels and number of firms would fall. The typical retail market, while highly competitive, is not perfectly competitive (as are wholesale markets for wheat, for example). Firms set their prices-mindful of course of competitors' prices. When a sales tax is imposed or the rate increased, from all indications the universal tendency is for firms to raise prices by the amount of the tax--that is, to apply the tax rate to the selling prices and add this sum to the prices, given what appears to be the usual retailing approaches to pricing. If they do not act immediately, they will in time be forced to raise prices or suffer losses.

This approach will distribute the tax burden in proportion to consumer spending--assuming that all consumer spending is taxed, and there are no repercussions on wages and other factor prices.

## Exceptions to the Rule

In practice, however, there are certain to be exceptions.

First, the consumer demands for various goods and services may
appear to the sellers to be of differing elasticity. But usual concepts of demand elasticity are based on the assumption that only the price of the particular commodity is changing; with a general sales tax, with all prices changing, the concepts of elasticity are much less clear. But even when all or most prices are rising, the demand elasticity may appear to the sellers to be greater for some goods than others. This of course can lead firms to make greater than average price increase on some goods and less than average on others. Likewise, some decline in sales may affect relative factor prices to a greater extent for some products than others; those using specialized factors (e.g., land
particularly suitable to produce wine grapes) will experience a reduction in costs as sales fall, and some of the tax will be absorbed by owners of the specialized factors.

The overall elasticity of demand is likely to influence the pricing behavior of firms only if markets are generally depressed, so that it appears to firms that full price increases would have significant adverse effects upon sales.

Second, firms may be subject to competition of sellers not subject to the t3x. These may be out of state firms competing in the market, either by cross border shopping or mail order sales, which have been growing in importance in recent decades. 1 This is particularly likely to be significant with local sales taxes imposed by jurisdictions with limited geographical scope. Thus full direct shifting will not occur. Third, not all commodities and services are subject to the tax; retail sales taxes do not, in fact, cover all consumption expenditures, as noted in subsequent chapters. For example, about half of the states exempt food, and a wide range of services are outside the scope of the taxes. The result is inevitably some shifting of purchases from taxed to untaxed goods. This may make direct shifting more difficult, and may reduce the incomes of factors specialized to the taxed industries (specialized skilled labor, for example) and affect the prices of factors specialized to the exempt industries, perhaps raising them--as, for example, burden is shifted off of persons as consumers to certain recipients of factor incomes.

[^3]Fourth, general increases in certain factor price may occur. The initial increases in prices of consumption goods will, of course, raise the cost of living index. This will automatically increase the transfer incomes of various groups (recipients of old age pensions, for example) and shift burden from them to other groups in society. The increase in the cost of living may also lead to increased demands of labor unions for greater wage increases than otherwise, again affecting the pattern of distribution of burden.

Fifth, the taxes, in practice, are not limited to consumption goods, but apply to the sale of some production inputs. As explained later in the volume, a substantial portion of the direct impact of state sales taxes rests on production inputs--fuel, machinery, buildings, supplies, equipment, and the like. It is not easy to generalize about the net final distribution of this burden. Direct and immediate shifting to the consumers of the products is unlikely, since the ratio of tax to current prices will be very uneven, and will not strike the various firms in the same period. Firms in states taxing industrial machinery, for example, will have difficulty in shifting the tax on their machinery purchases to their customers, when other states do not tax such transactions. While this tax in part is likely to rest on the owners of businesses and specialized factors in the industry, it is reasonable to assume that a substantial portion will ultimately shift forward into the prices of their products--but therefore strike consumption purchases in a very uneven fashion, as the ratio of tax to retail prices will differ widely.

Sixth, features of the sales tax laws may be significant. Believers in perfect competition argue that legal provisions relating to shifting have no significance with regard to distribution of tax burden, at least over time. This can be seriously questioned. Requirements for direct shifting and for separation of the tax element from the prices of the products encourage competing firms to shift by the same amount, though of course the direct shifting requirements can be avoided by lowering the price net of tax. Schedules provided by the states showing the amount of tax to add to various transactions inevitably encourage uniformity of behavior, though of course they do not ensure it. Uniformity of action essential for complete immediate shift off.

## Conclusions on Shifting

It would appear reasonable to assume that typically the portion of the tax applying to consumer purchases is directly shifted forward to the consumers. But it must be recognized that there are many possible exceptions, with some reduction of factor incomes, and some factor owners actually experiencing increases. The very substantial portion of the tax that applies to production inputs is another matter. While this may be assumed to shift to the purchaser of the inputs, except to the extent that it becomes an element in price bargaining, the subsequent fate is by no means clear--but it would appear to be reasonable to assume that a large portion is reflected ultimately in higher prices for
the consumption goods produced, directly or indirectly, with these inputs, but in a very uneven pattern relative to consumer spending. ${ }^{1}$

THE CASE FOR AND AGAINST STATE USE OF SALES TAXES

The sales taxes of today are the products of a variety of considerations, favorable and unfavorable, which have influenced voters and legislators.

## The Case for State Sales Taxes

The substantial reliance on sales taxes is the product of several influences. ${ }^{2}$

First, in many states, popular resistance on the part of voters has been less to sales taxes than to the principal alternatives: state income taxes and increased reliance on property taxes. Part of this preference reflects the payment of the sales tax in small amounts at a time, without the need for filing tax returns by individuals. Related is the fact that those most adversely affected by a sales tax, the lowest income groups, take a less active part in politics--in state legislatures or popular votes on tax measures--than other groups.

[^4]
#### Abstract

A second consideration is the belief on the part of voters, legislators, and governors that sales taxes offer less danger to the economy of a state than do income taxes. Legislators have long feared that income taxes may have significant adverse effects on location of business activity and residence of wealthy persons; the fear of these effects from a sales tax, which is not directly related to income, is much less. How real these effects of an income tax are is not known-but the fear certainly influences the action of legislators. Sales taxes may lead to some loss of retail sales to other states, but usually only a small segment of the population of a state is noticeably affected: retailers located near state borders.

Thirdly, it has been widely believed that sales tax revenue is more stable as economic activity changes than income tax revenue--thus the loss of revenue in periods of recession is much less--and the tax offers greater potentiality of raising revenue under depression conditions--as demonstrated by the experience with the tax in the worst years of the early 1930s. Some recent studies have questioned the revenue stability of the sales tax because of the importance of consumer durables in the base of the tax and widespread exemption of food, the most stable item in family budgets. ${ }^{1}$ The income tax, however, does offer the advantage of responding to inflation to a greater extent than the sales tax. Another influence is the caution of consumers and


[^5]business firms in periods of recession, which leads them to curtail purchases, especially of durables. ${ }^{1}$

Fourth, an important consideration is the desire by the states for a major tax source not tapped by the Federal government. This is related to several considerations noted above; if states use income taxes, the rates are in a sense a supplement to the Federal rates, increasing popular opposition and possible adverse economic effects.

Fifthly, from the standpoint of the economy as a whole, taxes related to consumption spending are likely to result in a higher rate of saving and real investment than taxes related to income in a progressive fashion. The United States has had in recent years a very low ratio of savings to total income relative to other industrialized countries, to the long-run detriment to real investment and economic growth. This is not, however, an argument that has had significant impact on state legislatures, or the country as a whole.

Finally the view has been widely accepted that the sales tax is a relatively easy tax to administer. This advantage has been made less significant by various complications introduced into sales tax structures.

The Primary Objections To State Sales Taxes - Regressivity

The primary objection raised against state sales taxes has from the earliest days been the argument that the taxes are regressive, taking a larger share of the incomes of the lower income groups than of the higher ones. The basic argument is that this effect results from

[^6]family patterns of use of income: higher income families on the average save greater percentages of their incomes than do those in the lower income groups, and spend greater percentages on various untaxed services. Under the assumption that the sales tax is shifted forward to consumers of the products, the empirical studies show the expected pattern of regressivity. A recent Minnesota study, for example, shows that for the portion of the tax borne by households, the tax constitutes 5.2 percent of the incomes of persons in the lowest decile of income, 1.3 percent in the highest, with an overall figure of 1.8 percent. ${ }^{1}$ In the range of the fifth through ninth decile (roughly $\$ 16,000$ to $\$ 61,000$, which includes most of the population), the variation is slight, from 2.1 percent to 1.8 percent.

A recent (1991) study in Connecticut shows similar patterns: the sales and use tax as a percentage of income falls from 8.15 percent at the under $\$ 5,000$ income level and 5.03 percent at the $\$ 10,000$ to $\$ 15,000$ level to 2.18 percent at the $\$ 100,000$ to $\$ 200,000$ level, and 1.24 percent over $\$ 200,000 .^{2}$ A 1992 Iowa study, which includes both the portion of the tax applying directly to consumer purchases and the portion applying to business purchases but assumed to be shifted forward into consumer prices, shows similar results; as noted in Table 1.2. The regressivity is obvious, but in the ranges that include most of the population, the range of the ratio of tax to annual family income is

[^7]TABLE 1.2

## Sales Tax Burden On Iowa Households <br> Current Law, 1993

| Income Class | Tax Liability <br> (S Millions) | Percent <br> of Total | Average Tax <br> Liability | Effective <br> Tax Rate |
| :--- | :---: | :---: | :---: | :---: |
| Under 0 |  |  |  |  |
| \$1 to $\$ 10,000$ | $\$ 20.8$ | $1.64 \%$ | $\$ 1,057.2$ | N.M. |
| $\$ 10,001$ to $\$ 20,000$ | 118.8 | 7.04 | 326.9 | 6.64 |
| $\$ 20,001$ to $\$ 30,000$ | 151.9 | 9.37 | 651.8 | 4.34 |
| $\$ 30,001$ to $\$ 50,000$ | 342.1 | 11.97 | 906.4 | 3.71 |
| $\$ 50,001$ to $\$ 75,000$ | 295.2 | 26.96 | $1,306.7$ | 3.31 |
| $\$ 75,001$ to $\$ 100,000$ | 107.7 | 23.27 | $1,769.0$ | 2.92 |
| $\$ 100,001$ to $\$ 200,000$ | 92.8 | 8.49 | $2,103.6$ | 2.50 |
| Over $\$ 200,000$ | 50.1 | 7.31 | $3,052.6$ | 2.41 |
|  |  | 3.95 | $6,345.0$ | 1.38 |
| TOTAL | $\$ 1,268.9$ | $100.00 \%$ | $\$ 1,092.8$ | $3.15 \%$ |

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KPMG Peat Marwick/Policy Economics Group, Iowa Sales Tax Model N.M. \(=\) Not Meaningful
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Source: KPMG Peat Marwick/Policy Economics Group; Report of the Study of the Iowa Tax System, Washington, DC, 1993.
only from 2.9 to 3.7 ; the sharp differences are for the income levels below and above this range. These are merely given as samples; other studies show similar results.

There are, however, several questions that may be raised about these studies. First, there has been a long-standing argument that sales taxes are borne in relation to factor incomes, not to consumption expenditures. This argument becomes complex and esoteric, but essentially maintains that the sales tax lessens the demand for factors, that is, factor production inputs; therefore factor prices fall, and persons bear the burden of the sales tax in relation to the amounts of factor incomes they receive. But the simplifying assumptions required in this analysis are such as to raise serious doubt about the validity of the conclusions. As noted earlier in the chapter, it must be
recognized that in some instances taxed firms may be unable to shift all the sales tax burden imposed on them.

A related argument raised in recent years by Edgar Browning maintains that since various social security and welfare payments to the lower income groups are indexed for price level changes, the relative burden on the poor is much less than appears from the usual studies, and thus the regressivity is less. But by no means all of the lower income groups are covered by indexing. ${ }^{1}$

A different argument is that many persons are in the low income groups only temporarily, and thus the more significant analysis of distribution of tax burden by income class utilizes the ratio of tax to the permanent component of income--in a sense to lifetime incomes. Many older persons with low incomes are deliberately spending accumulated savings. Younger families are spending substantial amounts to equip homes. Some family incomes fluctuate greatly from year to year. The result is to show a greatly reduced degree of regressivity. ${ }^{2}$ A recent publication by Don Fullerton and Diane Lim Rogers ${ }^{3}$ examine in great detail the question of lifetime income, concluding that a sales tax is less regressive than indicated by annual income studies, but not proportional: However, taxes are paid primarily out of current income,

[^8]and to most families the ratio of tax to current income is the more significant figure.

The extent of regressivity of a sales tax is significantly affected by the manner in which savings by income level is measured, as stressed in the recent article by John Sabelhaus. 1 The usual method, on which most surveys have been based, is the so-called residual approach, calculating savings by subtracting expenditures and taxes from household incomes. The alternative is to measure net worth for a household at two points in time and calculate saving as the changes in assets less change in liability adjusted for capital gains. With the second approach, the difference in the savings ratio by income quintile is very much less than with the former--2.4 for the bottom quintile, +12.5 for the top three, vs. -92.1 for the bottom, +25.8 for the top. In theory the tax measures should be the same; the discrepancy arises from differences in the available data. If the net worth approach is used, the regressivity is much less.

Regardless of these general criticisms about the pattern of distribution of sales taxes, the widely accepted view is that the tax is borne in relation to consumer spending--with exceptions recognized. But the criticisms of the tax on the basis of regressivity are weakened by the substantial degree of progressivity or at least less regressivity in the other portions of the tax systems of most states. Thus the sales tax should be viewed in its role as an element in the overall system,

[^9]not in isolation. But the absolute sales tax burden on the poor remains a significant consideration but is mitigated by two considerations mentioned above: many families are in low income brackets only temporarily, or in the high spending phases of the life cycle, and many welfare measures are primarily aimed at benefitting the lowest income groups. In a state such as Minnesota with a highly progressive income tax, the overall distribution of state-local tax burden is relatively proportional except at the lowest decile; ${ }^{1}$ the same is true in Nebraska except for the lowest decile. ${ }^{2}$ But in states without state income taxes or ones with relatively low rates, the overall system is regressive; Connecticut is an example. If a sales tax, however, finances activities primarily benefitting the poor, the combined effect of the taxes and expenditures is likely to be progressive. There are of course various means of reducing the sales tax burden on the lowest income groups, which will be reviewed in Chapter 4.

## Other Objections

A second objection to the sales tax is the interstate problem, As will be seen, while effective enforcement of the tax on sales within the state is certainly possible, control of the interstate sales is not. The states lack adequate power to require out of state vendors to collect and remit sales tax, and except on a few registered items such as motor vehicles, it is not

[^10]possible to collect from the final consumer. The consequence is not only considerable loss in revenue, but loss to the in-state retailers of business to other states. The problem is particularly acute when a neighboring state does not have a sales tax, but is significant in other situations as well, as a sale made in one state for delivery in another is not taxable in the former.

Thirdly, without doubt the sales tax is a source of some nuisance and cost to firms selling at retail, particularly when a tax is introduced or significantly changed. Routines must be develcped for compliance with the tax, new cash registers may be necessary, clerk time is required, and time and cost for determining tax liability. Firms find it particularly difficult to keep accurate record of tax due on purchases made tax free and then transferred to taxable purposes in the firm.

The most complete study of these costs was one made by Peat Marwick and Mitchell for the American Retail Federation (New York: 1982). ${ }^{1}$ Analysis of cost of compliance by retailers was made in seven states: Arizona, New York, California, Maryland, Pennsylvania, Illinois and Missouri. Compliance costs as a percent of tax due were found to range from 2.0 in Missouri to 3.75 in Arizona. The chief element in compliance costs was that of distinguishing between taxable and exempt items, which primarily affected grocery and drug stores, raising the overall average materially. Relative costs were greater for small firms than large, and varied among types of retailing.

[^11]A survey in Tax Administrators News, August, 1993, summarizes the findings of more recent studies since 1990 , and reports an overall average cost figure of 3.48 percent of total sales tax collected (1990), ranging from 2.69 (Florida) to 4.52 (Colorado), both in 1992.1

A fourth question about the sales tax is the possibly low long term elasticity of revenue in response to changes in total income, and in response to changes in tax rates. There have been a number of empirical studies over the years. One study showed income elasticities by state ranging from . 63 to 1.33 ; another showed a figure of only .66 overall. ${ }^{2}$ Studies of the response to sales tax rate changes also show a substantial range, one study from . 71 to 1.18 . Reaction by neighboring states is an influence. One study concludes, for example, that a 10 percent increase in the Iowa sales tax rate would raise revenue by 3.40 percent if adjacent states raised their rates but only .28 percent if they do not. ${ }^{3}$ There are only two positive conclusions that can be reached from these studies. First, in many jurisdictions a given percentage increase in the tax rate will result in a considerably lower percentage increase in revenue. Secondly, percentage increases in revenue will lag behind increases in total income in the state. These are obvious disadvantages.

Finally, in recent years resistance to sales taxes and increases in rates has been aggravated by the general anti-tax attitude that has

[^12]become so universal--partly reflected opposition to increased role of government, partly to the widespread philosophy held by many persons that other persons should pay for activities benefitting them. Some of this antagonism has a rational basis, some becoming almost psychotic, as persons fight urgently needed tax changes because they may cause minor increases in tax burdens.

Regardless of the criticisms of the sales tax, it remains, and is almost certain to remain, a key element in state tax structures and local tax st=uctures. There are continuing attempts, often successful, to erode the base, but there is no serious attempt to eliminate the existing tax. At the same time, the overall efficiency costs are greater the higher the sales tax rate, though operational costs per dollars of revenue are lower.

## The Effect of Loss of Deductibility of the Sales Tax for Federal Income Tax

It was widely believed that the loss in 1986 of deductibility of the sales tax for Federal income tax purposes would lead the states to shift toward lesser use of the sales tax and greater use of the income tax. ${ }^{1}$ Recent studies, however, have shown that this did not occur; instead the states have relied more heavily on sales taxes relative to income taxes. ${ }^{2}$ This may be attributed to the dominant "price effect" of the change in Federal taxes; the reduction in the higher Federal
${ }^{1}$ M. Feldstein and G. E. Metcalf, "The Effect of Federal Tax Deductibility on State and Local Taxes and Spending," Journal of Political Economy, Vol. 95 (August 1987), pp. 710-36.
${ }^{2}$ G. E. Metcalf, "Deductibility and Optimal State and Local Fiscal Policy," Economic Letters, Vol. 39 (June 1992), pp. 217-21.


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income tax rates made all state taxes more unattractive than they were with higher Federal margin rates. A further influence was the fact that there was not complete use of deductibility of the sales tax before 1986 because so many taxpayers relied on the tax tables and the standard deduction. ${ }^{1}$

\section*{THE CHOICE OF THE RETAIL FORM OF SALES TAX}

Given the acceptability of the sales tax, is the usual retail sales tax the most acceptable form of sales at the state level? This form of tax was selected initially for the same general reason that makes it the most acceptable today: most retailing is intrastate; inevitably the states encounter difficulties in taxing interstate transactions. Application of the tax at preretail levels would encounter insurmountable legal and control problems. The retail form does have other advantages as well--but these are subordinate to the interstate problem.


In recent years, however, some attention has been given to the value-added form of sales tax, which has become dominant in most of the world--in Europe, Latin America, and to a substantial extent in Asia, Africa and the Caribbean. ${ }^{2}$ But except for Brazil these are all national government levies; in Brazil the tax is used at both the federal and state levels.

[^13]The value-added tax differs from the retail tax in that the tax, instead of being collected on the final retail selling price, is collected piecemeal at each stage of production and distribution. Since the sum of value-added through production and distribution is equal to the retail price, other things being equal the two forms of taxes will yield the same revenue. Firms may be required to calculate their valueadded (sales minus cost of produced inputs) or apply the tax rate to their sales and deduct the tax they have paid on the purchases. At the national level the VAT offers significant advantages over the retail tax; revenue is collected at a series of steps rather than entirely from the retail seller; an audit trail is facilitated; ${ }^{1}$ and double taxation arising from application of tax to production inputs, and final products is avoided. The value-added tax can exciude all production inputs which the retail tax cannot feasibly do, thus having fewer adverse effects on real investment and efficiency in production than a retail sales tax. Problems in the use of the tax at the state level, however, are serin… Michigan uses a partial valueadded tax element in its business tax, with firms calculating valueadded, but the levy is by no means a true value-added tax. Louisiana has lonç :: ied a value-added element in the state sales tax, but of limited scope. The basic problem is the interstate one; the most effective form, the tax credit (invoice) method, could function if all states used the tax with the same rate and coverage, and accepted the principle of sharing the tax on the final sale with states of location

[^14]of the previous stages. But attainment of this requirement is most unlikely. Shift to a value-added levy to replace the state sales taxes would be feasible only if the Federal government imposed such a tax and the states integrated their taxes into it, which is occurring to a limited extent in Canada, and many problems would remain.

CRITERIA FOR AN OPTIMAL RETAIL SALES TAX

In framing sales tax structures, the states, especially in earlier years, tended to regard a sales tax as simply a means of raising substantial sums of money. But obviously there are other considerations as well which must play a role in the design of a sales tax structure if the tax is to meet the usual requirements of an optimal tax--avoidance of undesired economic effects, equity in terms of usual standards of the society, compliance and administrative effectiveness, and stability and growth of revenue. In terms of these usual standards, the following criteria can be established:

1. As the tax is designed to be a consumption related levy:
(a) It should apply to all consumption expenditures, and thus sales for consumption purposes, at a uniform rate. ${ }^{1}$ Failure to do so will distort relative outputs of various goods and services, discriminate among various families on the basis of consumer preferences, and, frequently, complicate compliance

[^15]and administration because of the need to distinguish between taxable and nontaxable items and among sales at various rates.
(b) It should apply only to consumption expenditures, and thus not to savings and not to purchases for use in production. Taxation of savings or uses of savings would contradict the consumption intent of the tax. Taxation of production inputs has several undesirable consequences, among others, producing a haphazard and unknown final pattern of distribution of burden among various families.
2. The overall distribution of the burden of the tax structure as a whole must conform with accepted equity standards of the society.
3. Compliance and administration problems must be kept to a minimum consistent with effective collection.
4. The base of the tax--taxable transactions--must grow with the growth of the economy, but should be relatively stable over periods of change in business activity, in view of the obstacles in the way of state and local borrowing.

As will be discussed, it is obvious that these various criteria may conflict; the desire to gain greater equity may suggest certain exemptions, inconsistent with the universality criterion, for example, and administrative considerations may make it difficult to attain universality, equity or other objectives. Where conflict does occur, compromise among the various objectives is necessary in an effort to gain overall optimality.

Continued adjustments in sales tax structures occur, with changes in the structure of the economy and the nature and practices of retailing, the pressure of various special interest groups, changing revenue needs, views of key legislators and governors, and from occasional overall studies of the tax structure of a state, often commissioned by state legislatures. These studies have been occurring for a century and continue; ${ }^{1}$ recent ones include those of Minnesota, Nebraska, Connecticut, and Iowa.

## VARIANTS OF THE STATE SALES TAXES

Most of the state sales taxes are pure retail levies, in the sense of applying only to sales made at retail, that is, for use or consumption and not for resale. An exception is Hawaii, whose tax, developed in the thirties quite independently of the other sales taxes, applies also to all sales in production and distribution, but at low rates at the nonretail level. Arizona includes a severance tax on mining and logging, and a low rate tax on a few wholesale transactions, all within the sales tax structure. As noted, Louisiana has a limited value-added tax feature.

Washington uses, in addition to a retail sales tax, a low rate gross receipts tax on all types of business. This levy is essentially a substitute for a business income tax. There is considerable coordination of administration of this levy with the sales tax, even though there are sharp differences in intent. It is clear that the

[^16]firms are expected to shift the sales tax to purchasers; it is presumably the intent of the gross receipts taxes that these rest upon the owners of the business--though in fact, as business expenses, they are likely to be shifted forward as well, but in an imprecise pattern. Thus sales taxes and business occupation taxes differ basically in terms of intent, and in practice the sales taxes have much higher rates.

## RELATIVE YIELD

Table 1.3 indicates sales tax yield by state for fiscal year 1991. Figures published by the Bureau of the Census are not entirely satisfactory measures of sales tax revenue and must be adjusted.

1. Receipts from the Washington business occupation tax and the Indiana gross income tax are included in census figures. These taxes are similar to business levies as distinguished from general sales taxes, and so are deducted for the present study.
2. Some other taxes include essentially non-sales-tax elements. The Arizona severance tax on mineral and lumber production is deducted, as in other states such a levy is imposed as a separate tax.

The wholesale elements in the taxes of Louisiana and Mississippi, however, are not excluded, since they are part of the basic sales tax structure. The portions of the Hawaii general excise tax which apply at a rate less than the standard 4 percent (including sugar processing, pineapple canning, insurance, etc.) are excluded.
3. Certain categories subject to the sales tax in most states are exempted from the tax but subjected to equivalent special levies,

Table 1.3 State Retail Sales and Use Tax Yields by State, Fiscal Year 1991

| Suste | Total State Tax Revenue (SOOO) | Reported General Sales Tax Revenue (\$000) | $\begin{aligned} & \text { Adjustments } \\ & (5000) \end{aligned}$ | Adjusted <br> Sales Tax <br> Revenue $(5000)$ | Adjusted Sales Tax Revenue as \% of State Tax Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | 3,942,565 | 1,049,526 | +49,954 | 1,099,480 | 27.9 |
| Arizona | 4,710,745 | 2,005,801 | -34,821 | 1,970,980 | 41.8 |
| Arkansas | 2,366,105 | 876,900 | 0 | 876,900 | 37.1 |
| California | 44,874,424 | 14,339,942 | -458,38 | 14,294,104 | 31.9 |
| Colorado | 3,213,833 | 844,572 | 0 | 844,572 | 26.3 |
| Connecticut | 4,983,328 | 2,438,653 | 0 | 2,438,653 | 48.9 |
| Florida | 13,764,055 | 8,138,690 | 0 | 8,138,690 | 59.1 |
| Georgia | 7,154,525 | 2,656,792 | -9,485 | 2,647,307 | 37.0 |
| Hawaii | 2,639,152 | 1,278,737 | -62,972 | 1,215,765 | 46.1 |
| Idaho | 1,204,607 | 404,164 | 0 | 404,164 | 33.6 |
| Ilinois | 13,291,517 | 4,163,801 | +44,133 | 4,207,934 | 31.7 |
| Indisna | 61,824,09 | 2,538,335 | -336,936 | 2,201,399 | 35.6 |
| lowa | 3,447,460 | 977,056 | 0 | 977,056 | 28.3 |
| Kansas | 2,796,415 | 918,211 | 0 | 918,211 | 32.8 |
| Kentucky | 5,043,183 | 1,299,665 | +212,359 | 1,512,024 | 30.0 |
| Louisiana | 4,309,467 | 1,308,090 | 0 | 1,308,090 | 30.4 |
| Maine | 1,558,231 | 497,069 | 0 | 497,069 | 31.9 |
| Maryland | 6,401,428 | 1,540,887 | +301,405 | 1,842,292 | 28.8 |
| Massachusetts | 9,683,597 | 1,909,438 | 0 | 1,909,438 | 19.7 |
| Michigan | 11,103,151 | 3,190,647 | 0 | 3,190,647 | 28.7 |
| Minnesols | 7,050,698 | 1,963,433 | +241,589 | 2,205,022 | 31.3 |
| Mississippi | 2,460,836 | 1,120,155 | 0 | 1,120,155 | 45.5 |
| Missouri | 4,996,388 | 1,863,374 | 0 | 1,863,374 | 37.3 |
| Nebraska | 1,767,368 | 624,259 | -3,195 | 621,064 | 35.1 |
| Nevada | 1,682,602 | 826,288 | 0 | 826,288 | 49.1 |
| New Jersey | 11,644,652 | 4,042,805 | 0 | 4,042,805 | 34.7 |
| New Mexico | 2,085,690 | 939,242 | +50,627 | 989,869 | 47.5 |
| New York | 28,299,769 | 5,751,832 | 0 | 5,751,832 | 20.3 |
| North Carolina | 7,850,043 | 1,689,871 | 0 | 1,689,871 | 21.5 |
| North Dakota | 755,054 | 235,255 | +28,490 | 263,745 | 34.9 |
| Ohio | 11,555,584 | 3,574,539 | 0 | 3,574,539 | 30.9 |
| Oklahoma | 3,861,985 | 963,548 | +112,733 | 1,076,281 | 27.9 |
| Pennsylvania | 13,021,344 | 4,197,700 | 0 | 4,197,700 | 32.2 |
| Rhode Island | 1,256,652 | 448,402 | 0 | 448,402 | 35.7 |
| South Carolina | 3,933,214 | 1,437,473 | +10,693 | 1,448,166 | 36.8 |
| South Dakota | 528,248 | 247,974 | +22,354 | 270,328 | 51.2 |
| Tennessee | 4,310,573 | 2,363,252 | 0 | 2,363,252 | 54.8 |
| Texas | 16,016,913 | 8,294,921 | +1,057,823 | 9,352,744 | 58.4 |
| Utah | 1,860,817 | 739,633 | 0 | 739,633 | 39.7 |
| Vermont | 684,519 | 125,611 | +24,753 | 150,364 | 22.0 |
| Virginia | 6,852,365 | 1,558,873 | +259,979 | 1,818,852 | 26.5 |
| Washington | 7,989,522 | 4,758,204 | -1,132,525 | 3,625,679 | 45.4 |
| Weat Virginia | 2,328,132 | 817,368 | -119,810 | 697,558 | 30.0 |
| Wisconsin | 7,016,734 | 2,026,711 | 0 | 2,026,711 | 28.9 |
| Wyoming | 637,452 | 177,779 | 0 | 177,779 | 27.9 |
| Total | 303,117,351 | 103,165,478 | +706,131 | 103,871,609 | 34.3 / |
| District of Columbia | 2,414,022 | 451,582 | +23,555 | 475,137 | 19.7 |

largely for administrative reasons, in other states. These categories include:
a. Motor vehicles, boats, etc. In Illinois (rentals), Kentucky, Maryland, Minnesota, New Mexico, North Dakota, Oklahoma, South Carolina (casual sales and rentals), South Dakota, Texas, Vermont, Virginia (and motor vehicle rental), Washington (boats), West Virginia, and the District of Columbia. These states use special levies collected in conjunction with registration. Yields are added to sales tax revenue.
b. Real property contractors in Alabama are subject to a separate levy.
4. Some states include fees for collection of local sales taxes as sales tax revenue. These are subtracted from the total.

Adjustments are not made for admissions taxes separately imposed in several states or for public utility taxes. Public utility services are subject to sales taxes in a number of states. In others, they are subject to separate levies; in still others, they are subject to both. Those special levies that are essentially substitutes for sales tax application cannot be delineated and therefore are omitted. The effect, however, is to understate somewhat the sales tax yields in those states in which, at least in part, the utility taxes are levied in lieu of sales taxes.

Separate taxes are imposed on hotel and motel service and/or meals in Alabama, Idaho, Illinois, Louisiana, Massachusetts, South Carolina, Texas, Vermont, and the District of Columbia. Because these taxes have been approaching the characteristics of excises, with different rates

Table 1.4 State Sales Tax Revenue per capita and as Percentage of Personal Income, 1991

| State | Adjusted Sales Tax <br> Revenue ( $\$ 000$ ) | Per Capita Sales Tax Revenue (\$) | Effective Tax Rate <br> Fiscal 1981 (\%) | Per Canita Sales Tax Revenue Per $1 \%$ of Tax Rate (\$) | Sales Tax Revenue as \% of Perzonal Income | Sales Tax Revenue as \% of Personal Income Per $1 \%$ of Tax Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | 1,099,480 | 268.87 | 4.00\% | 67.22 | 1.73\% | 0.43\% |
| Arizona | 1,970,980 | 525.64 | 5.00\% | 105.13 | 3.17\% | 0.63\% |
| Arkansas | 876,900 | 369.71 | 4.04\% | 91.51 | 2.53\% | 0.63\% |
| California | 14,294,104 | 470.51 | 5.00\% | 94.10 | 2.26\% | 0.45\% |
| Colorado | 844,572 | 250.12 | 3.00\% | 83.37 | 1.29\% | 0.43\% |
| Connecticut | 2,438,653 | 740.98 | 8.00\% | 92.62 | 2.85\% | 0.36\% |
| Florida | 8,138,690 | 613.02 | 6.00\% | 102.17 | 3.23\% | 0.54\% |
| Georgia | 2,647,307 | 399.73 | 4.00\% | 99.93 | 2.29\% | 0.57\% |
| Hawsii | 1,215,765 | 1071.41 | 4.00\% | 267.85 | 5.06\% | 1.26\% |
| Idaho | 404,164 | 388.90 | 5.00\% | 77.78 | 2.54\% | 0.51\% |
| Ilinois | 4,207,934 | 364.55 | 6.25\% | 58.33 | 1.76\% | 0.28\% |
| Indiana | 2,201,399 | 392.44 | 5.00\% | 78.49 | 2.28\% | 0.46\% |
| lowa | 977,056 | 349.54 | 4.00\% | 87.38 | 2.02\% | 0.51\% |
| Kansas | 918,211 | 368.08 | 4.25\% | 86.61 | 2.01\% | 0.47\% |
| Kentucky | 1,512,024 | 407.17 | 5.92\% | 68.78 | 2.61\% | 0.44\% |
| Louisiana | 1,308,090 | 307.67 | 4.00\% | 76.92 | 2.04\% | 0.51\% |
| Maine | 497,069 | 402.63 | 5.00\% | 80.53 | 2.31\% | 0.46\% |
| Maryland | 1,842,292 | 379.08 | 5.00\% | 75.82 | 1.71\% | 0.34\% |
| Massachusetts | 1,909,438 | 318.46 | 5.00\% | 63.69 | 1.38\% | 0.28\% |
| Michigan | 3,190,647 | 340.61 | 4.00\% | 85.15 | 1.83\% | 0.46\% |
| Minnesola | 2,205,022 | 497.48 | 6.00\% | 82.91 | 2.60\% | 0.43\% |
| Mississippi | 1,120,155 | 432.17 | 6.00\% | 72.03 | 3.24\% | 0.54\% |
| Missouri | 1,863,374 | 361.27 | 4.23\% | 85.51 | 2.02\% | 0.48\% |
| Nebraska | 621,064 | 389.94 | 5.08\% | 76.76 | 2.20\% | 0.43\% |
| Nevada | 826,288 | 643.61 | 5.75\% | 111.93 | 3.25\% | 0.57\% |
| New Jersey | 4,042,805 | 520.95 | 6.92\% | 75.28 | 2.03\% | 0.29\% |
| New Mexico | 989,869 | 639.56 | 4.98\% | 128.43 | 4.37\% | 0.88\% |
| New York | 5,751,832 | 318.53 | 4.00\% | 79.63 | 1.42\% | 0.35\% |
| North Carolina | 1,689,871 | 250.84 | 3.00\% | 83.61 | 1.49\% | 0.50\% |
| North Dakota | 263,745 | 415.61 | 5.00\% | 83.12 | 2.66\% | 0.53\% |
| Ohio | 3,574,539 | 326.77 | 5.00\% | 65.35 | 1.84\% | 0.37\% |
| OkJahoma | 1,076,281 | 339.00 | 4.50\% | 75.33 | 2.18\% | 0.48\% |
| Pennsylvania | 4,197,700 | 350.95 | 6.00\% | 58.49 | 1.82\% | 0.30\% |
| Rhode Lsland | 448,402 | 446.45 | 6.92\% | 64.52 | 2.32\% | 0.34\% |
| South Carolina | 1,448,166 | 406.84 | 5.00\% | 81.37 | 2.63\% | 0.53\% |
| South Dakoun | 270,328 | 384.36 | 4.00\% | 96.09 | 2.39\% | 0.60\% |
| Tennessee | 2,363,252 | 477.16 | 5.50\% | 86.76 | 2.89\% | 0.53\% |
| Texas | 9,352,744 | 539.09 | 6.23\% | 86.53 | 3.13\% | 0.50\% |
| Utah | 739,633 | 417.81 | 5.00\% | 83.56 | 2.86\% | 0.57\% |
| Vermont | 150,364 | 265.36 | 4.00\% | 66.34 | 1.47\% | 0.37\% |
| Virginia | 1,818,852 | 289.35 | 3.50\% | 82.67 | 1.44\% | 0.41\% |
| Washington | 3,625,679 | 722.57 | 6.50\% | 111.16 | 3.71\% | 0.57\% |
| West Virginia | 697,558 | 387.35 | 6.00\% | 64.56 | 2.71\% | 0.45\% |
| Wisconsin | 2,026,711 | 409.01 | 5.00\% | 81.80 | 2.28\% | 0.46\% |
| Wyoming | 177,779 | 386.87 | 3.00\% | 128.96 | 2.28\% | 0.76\% |
| Tota/Mean | 103,836,788 | 429.96 |  | 87.91 | 2.40\% | 0.49\% |
| District of Columbia | 475,137 | 794.14 | 6.00\% | 132.36 | 3.30\% | 0.55\% |

(and sometimes bases), these amounts are not added to the sales tax figures.

Table 1.4 shows the per capita sales tax revenue by state, and the revenue per 1 percent of rate as a percentage of total personal income. Hawaii, the District of Columbia, Washington and Connecticut show the highest collections per capita, North Carolina, Alabama, and Colorado the lowest. But much of the differential reflects rate differences. When the revenue is expressed in relation to 1 percent of the tax rate, Hawaii is still by far the highest, followed by the District of Columbia, Wyoming, New Mexico, Nevada, Arizona and Florida. It is obvious that the amount of tourist traffic is a significant element, certainly for Hawaii, the District, Nevada, Arizona, and Florida. Several of these taxes, but not all, have relatively broad bases, with few exemptions. Illinois, Pennsylvania, and Massachusetts are the lowest. The last two named have numerous exemptions, and in Illinois the separate levies on public utilities and hotels-motels have not been added. Adding revenue from these two would raise the figure in Illinois to 38 percent.

The breadth of the base may emerge partly from the sales tax philosophy dominant when the state adopted the tax. The 15 broadest sales taxes (measured as base relative to gross state product) had a mean age of 52 years (1990), compared to a mean age of 36 years for the 15 narrowest. ${ }^{1}$
${ }^{1} J o h n$ L. Mikesell, "Fiscal Effects of Differences in Sales Tax Coverage: Revenue Elasticity, Stability, and Reliance," Proceedings of the Eighty-Fourth Annual Conference on Taxation of the National Tax Association - Tax Institute of America (1992), pp. 50-57.

When revenue from the tax is expressed per 1 percent of rate as a percentage of personal income, Hawaii has by far the highest percentage, followed by Wyoming and New Mexico, with broad-based taxes. Illinois, Massachusetts, and New Jersey show the lowest figures, in large part because of broad exemptions (and in Illinois, the use of separate taxes on hotels and motels, and utilities).

For the states as a whole, the figure are $\$ 423$ per capita sales tax collections, the means of the states $\$ 88$ per 1 percent of rate, . 50 as a percentage of personal income per 1 percent of rate.

## The Number of Sales Tax Accounts

Table 1.5 shows the number of firms registered for sales tax by state, and population per active registered firm. Separate figures for use tax are shown for several states; the combined figures include both sales and use tax registrants. For a few states data are available for total registrants, active and inactive. The difference is substantial; California, 20,000 inactive; Nevada, 46.6 thousand vs. 38.4; New Mexico 140 thousand vs. 90; South Dakota 61.7 thousand vs. 49.2. In Washington state, the total number of registrants for the sales-use tax and the business and occupation tax is 326,000 , compared to 128,000 for the sales-use tax alone.

The largest population figures per store--that is, the smallest numbers of stores per 10,000 population--are to be found in Missouri, Louisiana, Illinois and Oklahoma; the largest population per store, and thus the smallest number of stores per 10,000 population, are in the Rocky Mountain and Southwest states of Colorado, New Mexico, and Wyoming, in the Midwest, Iowa, Kansas, Nebraska, South Dakota, North

Dakota, and in Maine and Vermont, all with substantial rural populations.

## Changes in the Number of Accounts, 1981 to 1990-92

Table 1.5 shows the change in the number of active sales-use-tax registrants since 1981. All states showed an increase except Wyoming. The high percentage increases were, in general, the rapidly growing states, such as Florida (73.2\%), Arizona (73.3\%), Nevada (71.1\%), and Texas (67.2\%) but including Michigan (68.8\%) and Rhode Island (52.4\%). The highest percentage shown was in Washington State, 105 , but this combined sales and business occupation tax, the latter making up the largest number. The low increase states were primarily in the south (Mississippi, Louisiana, Alabama, and Missouri), plus North Dakota and Pennsylvania, all under 10 percent. Growth was influenced obviously by growth in population and economic activity, but also by changes in the coverage of the tax, particularly the addition of services.

Quite apart from the net change is the very high annual turnover of registered firms, substantial numbers quitting, replaced by a roughly equivalent number. Thus the states have a substantial number of new vendors to educate each year. For 30 states for which information is available, the average is 15 percent a year, that is the percentage that newly registered firms constitute of the total number of firms; the percentage canceled is very similar since the net change from year to year is slight. The figures for 1971 and 1981 were 18 percent. Some of these are not truly new firms, but many are. Some of these represent failures, some sale of business, change in form of business organization, change in ownership patterns. Changes in address only are

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not usually included but the states are not entirely uniform in this
regard.
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## Returns by Size of Firm

Figures of sales tax collection by major class of business and by county and city are compiled in many states, but they are not useful in determining sales by commodity class since so many business firms handle more than one type of commodity.

Data of tax collected by size of firm are available in some states; typically a high percentage of the tax is provided by a relatively small number of firms. Table 1.6 , condensed from Table VIII in the 1991 Iowa Retail Sales and Use Tax Report, gives some indication.

Table 1.6

Iowa Sales Tax Collections by Size of Tax Due, 1991 Fiscal Year

| Tax Due | \% of Registered <br> Firms | \% of Retail Sales |
| :---: | :---: | :---: |
| Tax Paid |  |  |

Thus a large percentage of all registered firms pay very nominal amounts of tax; a high percentage comes from less than 1 percent of all firms. Public utilities are often the largest individual payers. In Iowa, firms with gross sales in excess of $\$ 1$ million, paid 51.4 percent of the total sales tax revenue. In Oklahoma, 5 percent of the accounts pay 50 percent of the tax revenue; in California, 3.7 percent of the

| State | Total Active Sales \& Use Tax Accounts ${ }^{1}$ | Population Per Active Accounts | \% Increase in NumLer of Active Accounts 1981-1991 | \% Annu in Nu Active | Change of Accounts Decrease |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | 75,237 | 54 | 6.9 | 20 |  |
| Arizona | 130,081 | 29 | 73.5 |  |  |
| Arkansas | 59,414 | 40 | 5.0 |  |  |
| California | 931,433 | 32 | 48.0 | 21 |  |
| Colorado | 145,741 | 23 |  |  |  |
| Connecticut | 120,000 | 27 | 20.0 |  |  |
| Florida | 511,440 | 26 | 73.2 |  |  |
| Georgia |  |  |  |  |  |
| Hawaii |  |  |  |  |  |
| Idaho | 32,265 | 31 | 16.9 | 5 |  |
| Illinois | 218,990 | 52 | 32.1 | 11 |  |
| Indiana | 172,934 | 32 | 28.1 |  |  |
| Iowa | 128,233 | 22 | 28.7 | 6 |  |
| Kansas | 103,738 | 24 | 20.0 | 15 |  |
| Kentucky | 97,540 | 37 | 26.3 |  |  |
| Louisiana | 80,000 | 53 | 2.6 |  |  |
| Maine | 52,760 | 23 | 33.3 |  |  |
| Maryland | 105,957 | 45 | 15.4 |  |  |
| Massachusetts |  |  |  |  |  |
| Michigan | 232,967 | 40 | 68.8 |  |  |
| Minnesota | 145,000 | 30 | 38.1 |  |  |
| Mississippi | 76,000 | 34 | 1.9 | 16 |  |
| Missouri | 75,700 | 67 | 9.9 | 6 |  |
| Nebraska | 68,947 | 23 | 12.9 | 13 |  |
| Nevada | 38,359 | 32 | 71.1 | 23 | 18 |
| New Jersey | 260,000 | 30 | 46.7 |  |  |
| New Mexico | 90,000 | 17 | 19.7 | 4 | 4 |
| New York | 573,275 | 31 | 27.3 |  |  |
| North Carolina | 164,000 | 40 | 37.8 | 21 | 20 |
| North Dakota | 27,900 | 23 | 7.3 | 12 | 11 |
| Ohio | 274,000 | 40 | 19.4 |  |  |
| Oklahoma | 68,139 | 47 | 21.4 |  |  |
| Pennsylvania | 240,000 | 50 | 4.8 |  |  |
| Rhode Island | 35,000 | 28 | 52.4 | 19 | 19 |
| South Carolina | 102,236 | 34 | 42.3 | 20 |  |
| South Dakota | 49,232 | 14 | 47.0 | 11 | 9 |
| Tennessee | 139,365 | 35 | 34.4 |  |  |
| Texas | 484,688 | 35 | 67.2 | 14 | 14 |
| Utah | 45,000 | 38 | 14.7 | 30 | 7 |
| Vermont | 30,200 | 19 | 66.7 |  |  |
| Virginia |  |  |  |  |  |
| Washington | 326,000* | 38 | 105.0 |  |  |
| West Virginia |  |  |  |  |  |
| Wisconsin | 158,747 | 31 | 46.3 | 19 | 19 |
| Wyoming | 25,454 | 18 | -31.4 | 14 | 14 |
| District of Columbia |  |  |  |  |  |

Source: Data provided by state revenue departments.
*Including B\&O tax. About 128,000 firms are subject to the retail sales tax.
${ }^{1}$ Separate data for use tax accounts are as follows: Alabama 11,828 retailer use tax; Iowa 5,616 consumer tax and 11,856 retailer use; Kansas 4,521 consumer use and 8,477 retailer use; Okl.ahoma 3,400 and South Carolina 11,231 retailer use.
accounts pay 78 percent of the total tax. Similar patterns are found with income taxes also.

Similar concentration is found in collections by county; in Nevada, for example, in 1991, 58 percent of the total sales tax revenue was collected in Clark County (Las Vegas) and 21 percent in Washoe (Reno): by contrast, . 02 percent of the total was collected in Esmeralda (Goldfield). 1 In California, in $1992,27.7$ percent was collected in Los Angeles county and 9.8 in neighboring Orange, compared to 0.008 in Alpine County and . 01 in Sierra County. ${ }^{2}$

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[^17]


[^0]:    ${ }^{1}$ It replaced the motor fuel tax as the largest source in 1948.

[^1]:    ${ }^{1}$ Per capita income in Oregon is lower than the national average.

[^2]:    ${ }^{1}$ This shows up clearly in the revenue statistics of Nevada, which exports substantial tax sales tax burden. Bradford Case and Robert Ebel, "Using State Consumer Tax Credits for Achieving Equity," National Tax Journal, Vol. 42 (September 1989), pp. 323-38.

[^3]:    ${ }^{1}$ While purchasers are legally liable to pay tax on such transactions, there is usually no way the states can enforce this rule.

[^4]:    ${ }^{1}$ These various complications suggest the need for a general equilibrium approach rather than the traditional partial equilibrium one. But the lack of necessary data makes this approach unworkable at present.
    ${ }^{2}$ Anderson, Shughart, and Tollison find that where legislative salaries are low (and legislatures are dominated by politicians having relatively high outside earnings) states rely more heavily on consumption taxes, especially sales. Use of the taxes allows higher income group representatives in the legislature to keep the tax burden on low income taxpayers. G. M. Anderson, W. F. Shughart II, and R. D. Tollison, "Political Entry Barriers and Tax Incidence: The Political Economy of Sales and Excise Taxes," Public Finance/Finances Publiques, Vol. 44 (No. 1, 1989), pp. 8-18.

[^5]:    ${ }^{1}$ Fox, William F. and Charles Campbell, "Stability of the Sales Tax Income Elasticity," National Tax Journal, Vol. 37 (June 1984), pp. 201-12.

[^6]:    ${ }^{1}$ Mikesell, John, "Sensitivity of Taxes," Public Budgeting and Finance, Vol. 4 (Spring 1984), p. 37.

[^7]:    ${ }^{1}$ Minnesota Department of Revenue, Tax Research Division, Minnesota Tax Incidence Study (St. Paul: Nov. 1993).
    ${ }^{2}$ The Connecticut Sales and Use Tax: Analysis of Tax Revision Alternatives, prepared by KPMG Peat Marwick for the State of Connecticut report, Task Force on State Tax Revenue, 1990, Table 11-4.

[^8]:    ${ }^{1}$ Edgar'K. Browning, "Tax Incidence, Indirect Taxes, and Transfers," National Tax Journal, Vol. 38 (Dec. 1985), pp. 525-34.
    ${ }^{2}$ A recent study concludes that the state sales taxes are actually progressive over the life cycle. Gilbert E. Metcalf, The Lifetime Incidence of State and Local Sales Taxes, National Bureau of Economic Research, Working Paper No. 4252, January 1993.
    ${ }^{3}$ Who Bears the Lifetime Tax Burden?, Washington: Brookings, 1993.

[^9]:    1"What is the Distributional Burden of Taxing Consumption?," National Tax Journal, Vol. 46 (September 1993), pp. 331-44.

    See also Barry Bosworth, Gary Burtless, and John Sabelhaus, "The Decline in Savings: Evidence from the Household Surveys," Brookings Papers on Economic Activity (1), 1991.

[^10]:    ${ }^{1}$ Minnesota, op. cit., p. 40.
    ${ }^{2}$ Michael Wasylenko and John Yinger, Final Report: Nebraska Comprehensive Study (Syracuse: Metropolitan Studies Program, 1988), pp. 7-21.

[^11]:    ${ }^{1}$ Report to the American Retail Federation on Costs to Retailers of Sales Use Tax Compliance (New York: Peat Marwick, Mitchell \& Co.), 1982.

[^12]:    ${ }^{1}$ Vol. 57 (August 1993), p. 88.
    ${ }^{2}$ Fox and Campbell, "State Sales Tax Income Elasticity," op. cit., provides a summary of the literature.
    ${ }^{3}$ Roger S. Hewitt and Susan G. Stevenson, "State Tax Revenue Under Competition," National Tax Journal, Vol. 36 (March 1983), pp. 95-102.

[^13]:    ${ }^{1}$ R. Ebel, "Comment on Tax Exporting, Federal Deductibility and State Tax Structure," Journal of Policy Analysis and Management, Vol. 12 (1993), pp. 127-30.
    ${ }^{2} A$ summary and extensive references are provided in the article by Roderick Hill and Michael Rushton, "Harmonizing Provincial Sales Taxes and the GST," Canadian Tax Journal, Vol. 41 (April 1993), pp. 101-22.

[^14]:    ${ }^{1}$ VAT deducted as input tax credit by one firm should show up in the VAT paid figures of the firm's suppliers, for example.

[^15]:    ${ }^{1}$ For complete economic optimality, the rate should not be uniform, but be higher on commodities with inelastic demand and lower on those with elastic demand. But knowledge of demand elasticities is inadequate to permit the development of such rate schedules; rate variation is intolerable from an operational standpoint; and the proposal would violate usual equity standards, requiring higher rates on "necessities" than "luxuries."

[^16]:    ${ }^{1}$ One of the eariiest was the Report of the Commission on Revenue and Taxation of the State of California, Sacramento: Superintendent of State Printing, 1906.

[^17]:    ${ }^{1}$ State of Nevada, Department of Taxation, Annual Report, 1990-91, p. 6 .
    ${ }^{2}$ Figures for 1992, from California State Board of Equalization, Annual Report, 1992, p. A-25.

