

Trends in Kentucky Taxes and Their Implications for Future Tax Policy

The two major sources of state government revenue are the individual income and sales taxes. Over the past 20 years, the individual income tax has become a more important source of revenue while the sales tax has diminished in importance. The diminished role of the sales tax is not the result of legislative efforts; the steady downward trend is the result of changing economic conditions and consumption patterns. People are spending smaller percentages of their income for tangible goods and greater percentages of income for services. Therefore, Kentucky should expand the sales tax base to include services to consumers. Taxing services provided to businesses could put Kentucky services at a tremendous disadvantage against services provided by businesses in other states.

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Reforms, or at least changes, in tax codes have become the norm for states since the late 1970s, with generally over half of the states enacting notable changes in their tax code each year. In 1990, 31 states enacted notable changes in their tax codes; in 1991 and 1992, 41 and 40 states, respectively, did so; and in 1994, 37 states enacted major changes.

Kentucky is no exception to this trend, engaging in several major changes in its tax code in the recent past. The 1990 legislative session was particularly active. During this session the general sales tax increased from 5 percent to 6 percent. This legislative session also made several changes in the state income tax code, eliminating the deductibility of federal income taxes; creating a low-income tax credit; and conforming to IRS codes. This same session also increased the top bracket for the corporate income tax from 7 percent to 8.25 percent. Other major changes in the 1990s include legislating (and then repealing) a 2 percent tax on health care providers and the exclusion of most private pension income from the state income tax.

With states changing tax codes so frequently, we may be led to ask how Kentucky compares to other states. How has taxation in Kentucky changed in the past 20 years and have we fallen behind? Do any other changes need to be made in Kentucky?

It is these three questions this chapter addresses by providing some general comparisons of Kentucky's primary sources of general revenue to other states as well as comparing Kentucky to other states in terms of the tax burden on its residents. From this brief review, we find that tax rates in Kentucky are close to the national average but tend to be somewhat higher than most of our surrounding states, perhaps our most obvious competitors for location of new industrial plants and business operations.

While tax rates have remained relatively unchanged in Kentucky in the recent past, we show the same is not true of our sources of revenue. During the past 20 years the role of the sales tax as a source of revenue has diminished dramatically, as its rate of growth has steadily declined while the growth in the individual income tax base has remained relatively constant.

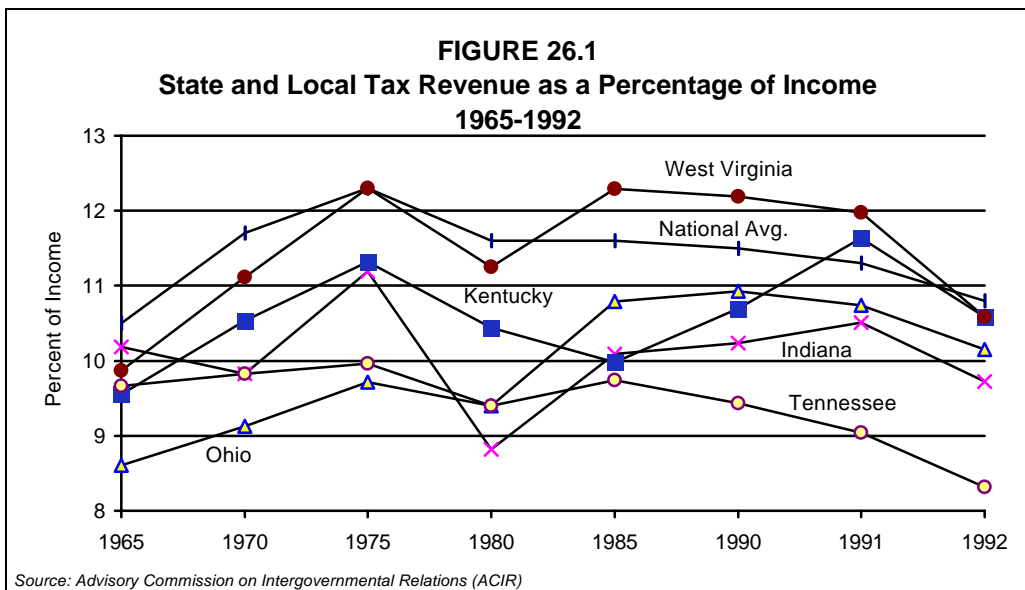
Despite or, in some cases, because of the numerous reforms in our tax code, significant changes should be made in our tax code. While there are some obvious changes that might be made in the individual income tax code, the primary focus of this chapter is on the general sales tax, for two reasons. First, given that the Kentucky individual income tax code is similar to that of the federal government, it is unlikely that major alterations, such as changes in itemized deductions or treatment of capital gains, will occur in Kentucky without first being implemented at the federal level. Second, because of underlying economic conditions and not

legislation, it is the general sales tax that has changed the most in the past 20 years. Revenues from the general sales tax have not kept pace with either personal income or general expenditures by the state. This is a major reason for the underlying *structural deficit* that arose during the 1980s and necessitated the major tax increases in the 1990 legislative session.¹

After discussing the reasons for the diminished role of the general sales tax and the associated *structural deficit*, we next propose a policy correction—broadening the general sales tax base to include services, rather than raising rates. This, we argue, is a more efficient way to collect taxes and should significantly reduce the *structural deficit* by providing a tax base that will keep pace with personal income and expenditures.

How Does Kentucky's Tax Burden Compare?

Figure 26.1 shows state and local tax revenue as a percentage of personal income for selected years from 1965 to 1992. As the figure indicates, Kentucky, while once well below the national average, had a tax burden comparable to the national average in 1992. In fact, in 1992 Kentucky was ranked 25th in state and local tax revenue as a share of income.² Compared to a benchmark set of states (Ohio, Indiana, Tennessee, and West Virginia), only West Virginia has a comparable tax burden, with Ohio, Indiana, and Tennessee having lower burdens, as a percentage of income.

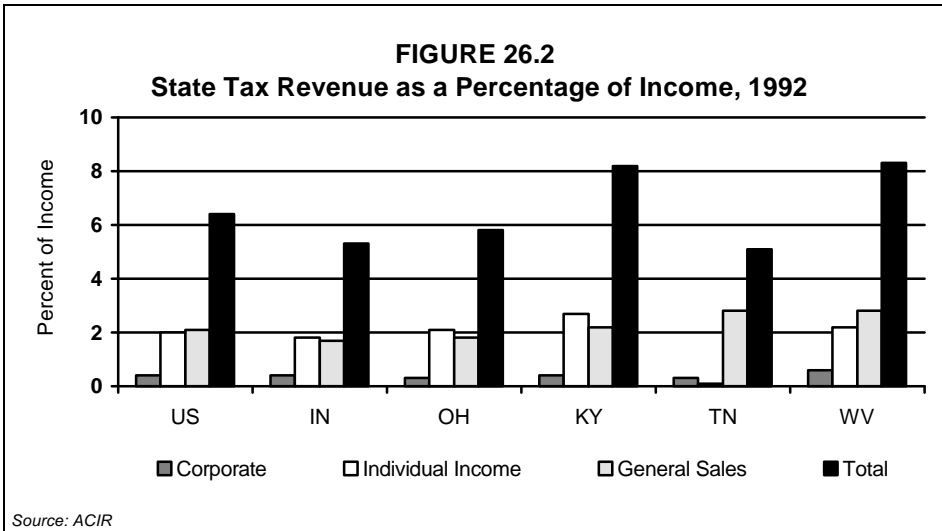


While Figure 26.1 suggests that Kentucky is similar to other states with respect to its tax burden, the distribution of taxes between the state and local government is significantly different in Kentucky from the “typical” state. Figure 26.2 depicts the shares of personal income collected from the general sales tax, individual income tax, corporate income tax and total state taxes for Kentucky, our benchmark states, and the nation. While Kentucky was at the national average in terms of its total tax burden as a percentage of personal income, it is far above average in terms of its state tax revenue as a percentage of personal income, ranking 6th

¹ See Schirmer, P., Childress, M.T., Nett, C.C. (1996). *\$5.8 billion and change: An exploration of the long-term budgetary impact of trends affecting the commonwealth*. Frankfort, KY: The Kentucky Long Term Policy Research Center.

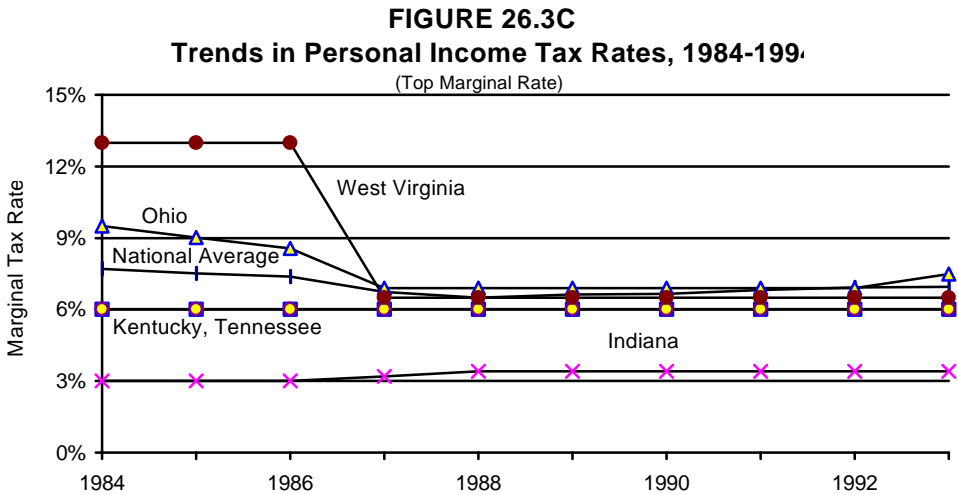
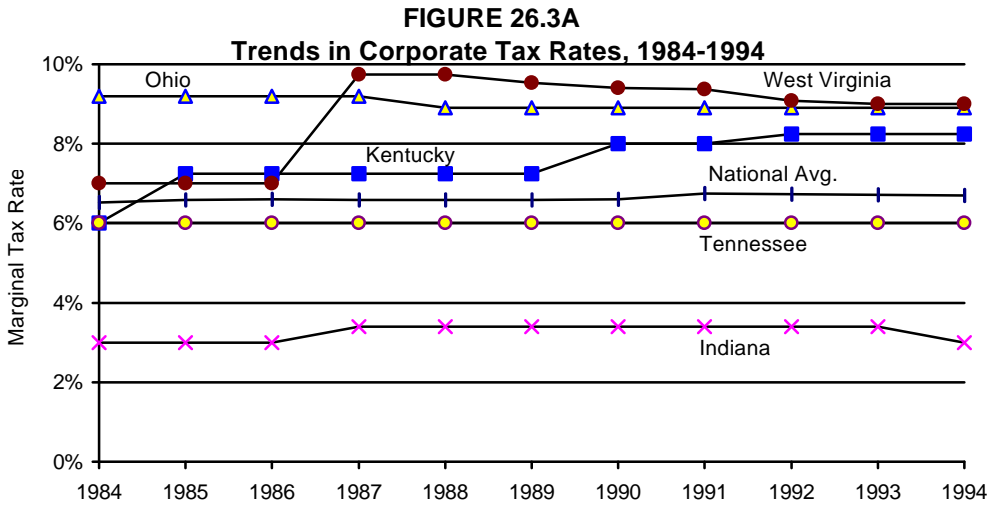
² These figures are from numerous volumes of Advisory Commission on Intergovernmental Relations (1995) *Significant features of fiscal federalism*. Washington, DC: Author.

in the nation. Figure 26.2 also suggests that there are some differences in how revenue is raised in Kentucky. The most striking difference from the national average is Kentucky's heavier reliance on the individual income tax than most states in the nation. Kentucky collects 2.7 percent of its personal income from the individual income tax while the national average is only 2.0 percent. Kentucky collects 2.2 percent of its revenue from the general sales tax with the national average being 2.1 percent.



While comparing states by measuring tax burden as a percentage of income offers some insight into the tax burdens on residents and businesses in the states, it is not the only measure, or perhaps even the best. One reason for high taxes as a percentage of income might be low incomes in the state (West Virginia, for example). Presumably, both residents and businesses when making a decision about where to locate, to the extent taxes are considered, would consider the rates, not percentage of income, as the rate will determine how much of their income they will pay in taxes.

Figures 26.3A-C show trends in tax rates for the “average” state, Kentucky, and the benchmark states for the years 1984 to 1994. For corporate and individual income tax rates, the figures show the top marginal rate. For most states, the top bracket is reached at a very low income (\$8,000 for individual income in Kentucky), so most income is taxed at the top rate. These figures suggest that for both Kentucky and the nation, there have been relatively minor changes in tax rates during this period. As more and more states have instituted a general sales tax, the average rate has increased (Figure 26.3B). While the top tax brackets for the corporate income tax rate have increased somewhat over the nation (Figure 26.3A), the top rate has fallen for the individual income tax (Figure 26.3C). These figures also suggest that Kentucky seems to be, for the most part, relatively typical, though as Figure 26.3A suggests, its corporate income tax rate is above the national average and that of most surrounding states. While Kentucky's sales tax rate is above the national average (this includes states with no sales tax) it is not very different from other states in the region (see Figure 26.3B). Finally, Kentucky is at the national average in individual income tax rates, but potential competitors Indiana (with a top rate of 3 percent) and Tennessee (with a tax only on certain interest income) are very low tax states.

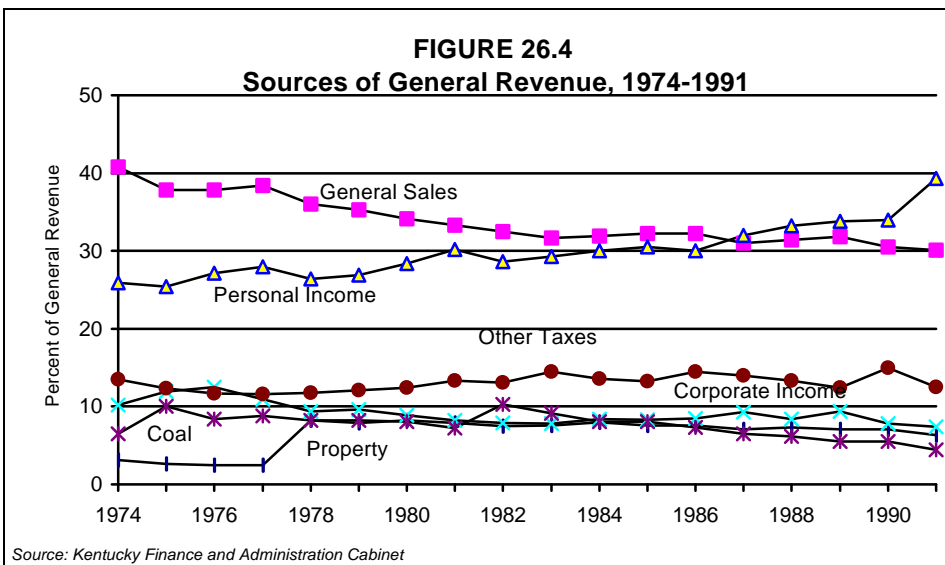


Source: ACIR

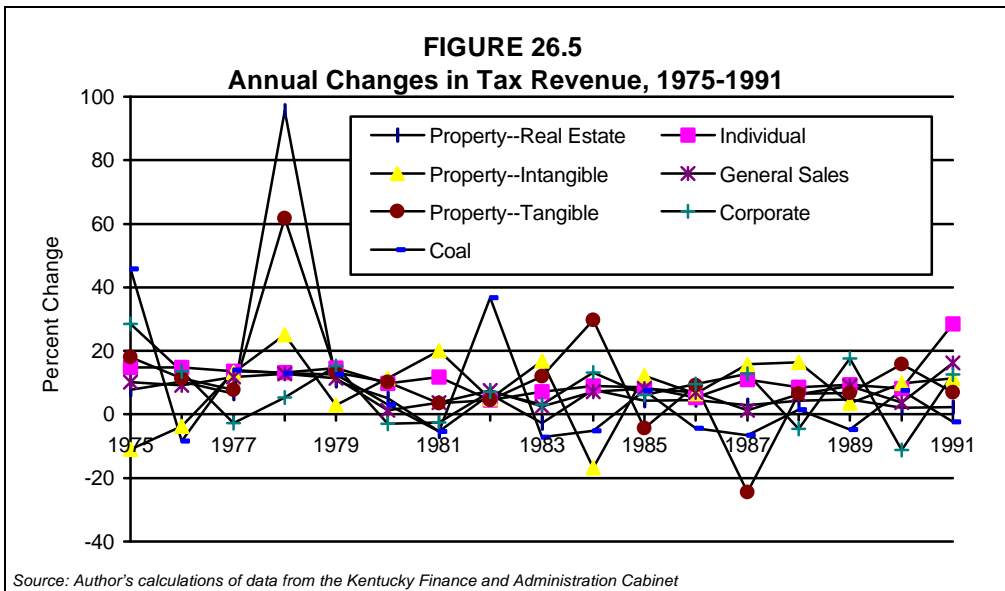
Finally, while the emphasis here is on taxes, we should note that comparing states based on any measure of taxes does not give a full picture of how the state (and local) government contributes to economic growth in a state. Tax revenue is being used to finance numerous government programs and services, including education from state general revenue. To the extent that residents value these services, taxes must be considered in conjunction with services.

Trends in Kentucky Taxation

Figure 26.4 shows the percentage of general revenue collected from the general sales, individual income, corporate income, and coal tax from 1974 to 1991. The most pronounced change that occurred in the way tax revenue was generated in Kentucky during the 1970s and 1980s was the switch from the general sales tax to the individual income tax as the state's primary source of revenue. From 1974 to 1991 the general sales tax was reduced from over 40 percent of general revenue to approximately 26 percent, while the trend was essentially reversed for the individual income tax. It should be noted that these trends occurred despite no changes in either the individual income or general sales tax rates and only limited changes in their bases. The role of the general sales tax was diminished because of economic conditions that determine its base, as will be discussed later.



One reason we might be concerned about the diminished role of the general sales tax is illustrated in Figure 26.5, which shows the year-to-year variability in tax revenue for the four major sources of tax revenue for the general fund in Kentucky. Strict budget limitations (limited rainy day funds and deficit financing) require short-run stability in tax collections. As Figure 26.5 illustrates, the coal and corporate income taxes are unstable sources of revenue, with revenue from these sources varying dramatically from year to year. Most of this variation in revenue has been due to changes in tax bases, not tax rates. Clearly, sound tax policy suggests that reliance on these taxes as a source of revenue should be limited as they are unreliable and unpredictable sources of revenue.



As Figures 26.4 and 26.5 indicate, the two primary sources of general revenue, the individual income and general sales tax, have had dramatically different trends over the past 20 years. The average increase in sales tax revenue was 10 percent during the period of 1976 to 1994 and only 7 percent for the individual income tax.³ However, while the average increase in sales tax revenue was higher than the increase in the individual income tax, the percentage increase in sales tax revenue has been decreasing while the increase in individual income tax revenue has remained relatively constant over the past 20 years. Between 1975 and 1985, sales tax revenue increased by 10.3 percent per year while between 1986 and 1994 it increased by 9.7 percent even with an increase in the sales tax rate in 1991. In fact, over the past 20 years, the increase in sales tax revenue has been diminishing by almost .5 percent per year.⁴ Given that the average increase in tax revenue was 10 percent per year during this period, this is an average reduction in additional revenue of 5 percent per year.

Why is the Sales Tax Base Diminishing and Why Should We Care?

Efficiency and Taxation. One of the first principles of designing an “optimal” or efficient tax system is to make the tax base as broad as possible. The greater the tax base, the lower the tax rate necessary to raise the desired amount of revenue. Because tax rates distort prices, creating a “wedge” between the price paid by the consumer and that received by the producer, this creates an inefficiency or “deadweight loss.” At the efficient level of production of a good or service, everyone who is willing to pay a price high enough to cover the cost of producing the good should receive it. However, with a tax, the consumer now would have to pay a price that covers both the cost of the good and the tax; thus the consumer may not purchase a good for which she is willing to pay at least the cost of the good but not the cost of the good and the tax on it. For example, suppose that a hamburger costs \$1.00 to produce (including all costs

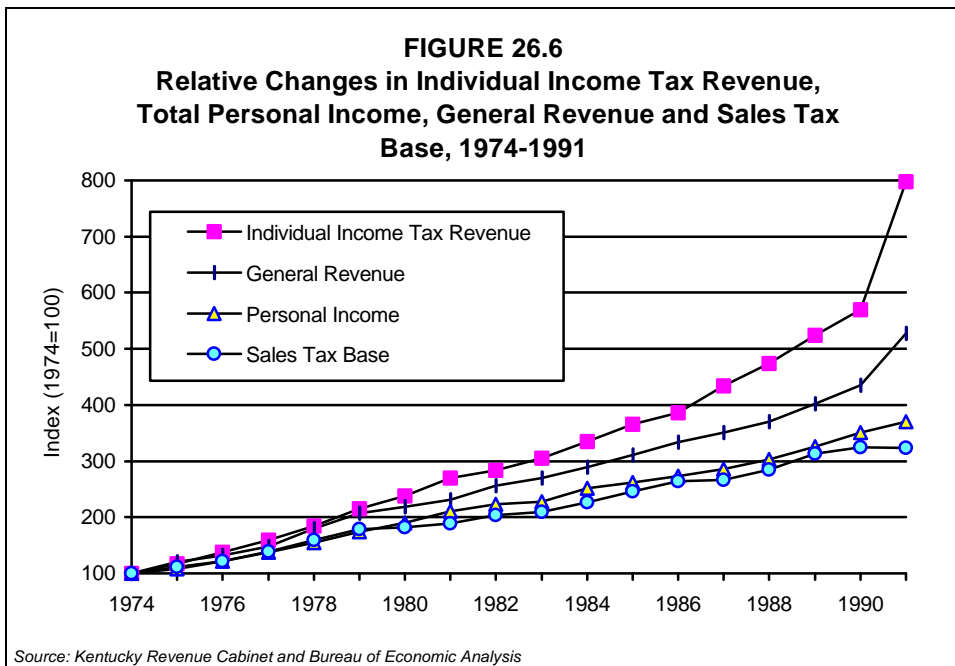
³ Author's calculations based on data from Kentucky Finance and Administration Cabinet (various years) *Comprehensive annual financial report*. Frankfort, KY: Author.

⁴ From Cochrane-Orcutt estimates of the change in sales tax revenue ($\log(\text{sales revenue})_t - \log(\text{sales revenue})_{t-1}$) on time and a dummy for 1991 to control for the changes in revenue due to the rate increase. Results available from the author.

except taxes) and some consumer is willing to pay \$1.03 for it. Then the consumer will purchase the hamburger. However, if a tax of 6 percent increases the cost to \$1.06, the consumer will not be willing to buy the hamburger. This is inefficient—people are unwilling to pay more for a good (the hamburger) than the cost of producing it. It should have been produced and purchased, but was not.

What is particularly relevant for the general sales tax is that the inefficiency created by taxes, deadweight loss, increases dramatically with the sales tax rate. Doubling the tax rate will increase deadweight loss by a factor of four.⁵ The implication of this exponential increase in inefficiency with an increase in the tax rate is that by broadening the tax base to keep tax rates lower, we can lower tax rates and dramatically reduce deadweight loss. For example, if we were to double the general sales tax base and lower the tax rate from 6 percent to 3 percent, we might expect deadweight loss to decrease by 50 percent.⁶

Why the Diminishing Sales Tax Base? Table 26.1 shows the sales tax base relative to personal income. The revenue base for the sales tax has decreased from 47.5 percent of personal income in 1977 to 38.1 percent of personal income in 1992. If the sales tax base in 1992 had remained at 47.5 percent of personal income, additional tax revenue of \$345 million would have been collected. Alternatively, a tax base of 47.5 percent of personal income would have allowed the state to raise \$1,411 million (1992 sales tax revenue) with a rate of 4.8 percent rather than 6.0 percent. Figure 26.6 shows how growth in the sales tax base has lagged behind both individual income tax revenue collections and growth in personal income.



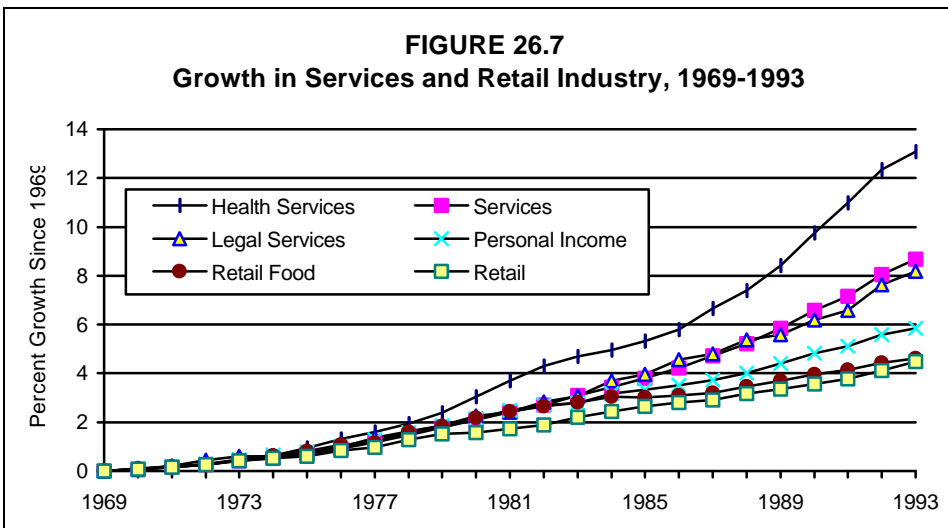
⁵ Formally, deadweight loss or excess burden is approximated by $DWL = \frac{1}{2} \epsilon t^2 pQ$ where ϵ is (compensated) price elasticity, t is the (ad-valorem) tax rate and pQ is revenue from the sale of the good being taxed.

⁶ This assumes that the price elasticities are the same for the goods currently being taxed and the goods (and services) that would be included in the expanded tax base.

	<u>1977</u>	<u>1982</u>	<u>1986</u>	<u>1992</u>
Revenue Base (\$mil)	10,166	13,850	17,876	23,520
Tax Rate	5%	5%	5%	6%
Total Revenue	508.3	692.5	893.8	1,411.2
Personal Income (\$mil)	21,426	34,518	42,342	61,697
Base as % of Income	47.45	40.12	42.22	38.12

Source: Kentucky Revenue Cabinet Annual Report and Statistical Appendix, from 1975/76-1991/92

In the past 15 years, much has been said about the impact of moving from an economy based on manufacturing to a service-based economy. While most of the discussion on this issue relates to employment, the shift from a manufacturing economy to a service economy has also dramatically changed the nature of the sales tax. As the general sales tax in Kentucky is primarily on tangible goods and services, as people have been spending a smaller percentage of their income on these goods and more on personal services, the sales tax base relative to income has decreased dramatically. Figure 26.7 contrasts growth in receipts on all services, health services, and legal services, to growth in personal income and growth in retail and retail food receipts. As the figure suggests, services, which are mostly untaxed, have been growing at a faster rate than personal income, while taxed retail goods have grown much more slowly. As a result of not including a large number of services in the tax base, the tax base relative to personal income has significantly diminished in the past 20 years. Table 26.2 gives a more detailed breakdown in the growth of service receipts over the past 20 years.



While some of the services listed in Table 26.2 are taxed, many are not. Table 26.3 lists the sales tax base for Kentucky based on the Advisory Commission on Intergovernmental Relations (ACIR) classification of services. As this table suggests, most services are exempt from the sales tax, particularly in personal, business services and professional services as well as repairs. Generally, Table 26.3 suggests that Kentucky lags behind other states in taxing services even though most states make little attempt to tax services other than utilities and amusements.

TABLE 26.2
Receipts For Services, 1977, 1982, 1987, and 1992

Business Classification	Receipts, \$1,000,000				Percentage Change	
	1977	1982	1987	1992	1977-1992	1982-1992
Personal Service.....	217.9	300.4	413.7	580.0	166	93%
Business Services.....	282.3	579.2	916.3	1,648.4	484%	185%
Repair Services						
Automotive Services.....	180.7	287.8	450.5	722.0	300%	151%
Amusement.....	150.1	216.4	329.5	525.0	250%	143%
Health, Except Hospital.....	---	1,164.8	2,443.0	4,119.0	---	254%
Professional Services						
Legal Services.....	150.5	271.7	459.1	728.7	384%	168%
Engineering And Accounting	183.9	319.8	450.9	975.0	430%	205%
Social Services.....	49.8	68.2	93.1	133.3	168%	96%
Total Receipts.....	1,399.1	3,528.1	6,007.0	10,378.0	642%	194%

Source: Bureau of the Census

As discussed earlier, broadening the tax base would enable us to decrease tax rates. Consider the impact of adding health and professional services to the tax base. Combined receipts for these services were \$1,703.7 million, compared to \$2,350 million in the 1992 tax base. Adding these services to the tax base could increase it by 72 percent. With this significantly expanded tax base, the tax rate could be reduced from 6 percent to 3.4 percent. Again, reductions in rates of this magnitude would significantly reduce the inefficiencies associated with the sales tax.

TABLE 26.3
Tax Base for the General Sales Tax

	No. of States Exempting	Kentucky
Food.....	26	Y
Non-Prescription Drugs	8	N
Telecommunications.....	8	N
Residential Utilities.....	31	Y
Personal Services.....	28; 7 limited	Y
Hotels and Lodgings.....	8	N
Custom Computer Programs	31	Y
Contractors.....	3	Y
Repairs.....	14	N
Sales of Materials to Manufacturers.....	45	Y

Source: ACIR

TABLE 26.4
Personal Services Taxed, 1992

Service Category	No. of Services in Category	Number Taxed in KY	Median Number Taxed in US
Utilities.....	16	10	8
Personal Services.....	20	1	4
Business Services.....	34	4	6
Computer Services.....	6	0	2
Admission/Amusement...	14	7	10
Professional Services.....	8	0	0
Fabrication, Repair.....	19	3	5
Other Services.....	47	1	6

Source: ACIR

The Implication for Policy: Expand the Base, Not the Rate. If trends in both general expenditures and sales tax base continue, with general expenditures increasing at a rate equal to or exceeding the growth in personal income and the sales tax base growing more slowly and its growth rate declining, current tax rates will not be able to provide sufficient revenue. The inability of current tax rates to continue to provide sufficient tax revenue in the future is referred to as a *structural deficit*. One remedy is to increase rates on the current tax base while another is to increase the sales tax base by expanding the taxation of services. Expanding the taxation of services instead of increasing the rate on our current base is a preferred course of action for two reasons. First, the inefficiency generated from the additional revenues will be lower because higher tax rates, as discussed earlier, lead to much greater increases in inefficiency. Second, by including more of the consumers' spending in the tax base, we will have a tax base that should not diminish over time and should keep better pace with both personal income and general spending by the state. In addition, we might expect the short-run stability of the tax base to increase. Finally, by having a tax base for which growth mirrors personal income, we, in some sense, place revenues on automatic pilot and eliminate the politically costly consideration of future tax increases.

While expanding the tax base to include services might make economic sense, evidence from the attempts of both Kentucky and other states to expand their sales tax base to include services, particularly professional and business services, indicates it may not make political sense. Kentucky has failed in at least two notable attempts to tax services: in 1990, unsuccessful attempts were made to tax business services, and the health care provider tax enacted in 1990 has been repealed. Other notable failures to tax services include Florida's and Massachusetts's short-lived taxes on professional services in the late 1980s. The most controversial aspect of these service taxes is the taxation of professional services used by businesses. In the case of Florida, the major opposition to the tax arose from the legal and advertising community.

In addition to the obvious political opposition the expansion of any tax can arouse, a good economic argument exists for concern about the taxation of business services. Taxing business services can lead to *tax pyramiding*—taxing intermediate goods (purchases of services by businesses) in addition to taxing the final product sold to the consumer. This tax pyramiding can lead to a distortion of relative prices of goods by essentially doubling the tax on goods that use taxable intermediate inputs. To avoid this double taxation, firms might increase in-house provision of services such as accounting and legal services, which is likely to be inefficient if done to avoid taxes. Thus, there is some economic sense in allowing the purchases of services as well as tangible products by businesses to be exempt from the sales tax and to tax only services and tangible goods purchased by consumers.

Another concern related to the expansion of the sales tax base, particularly to business services, is whether these businesses will be at a competitive disadvantage relative to businesses in states that do not tax these business services. For example, if Kentucky were to tax advertising services, Kentucky firms might seek advertising services from Cincinnati or Nashville. In addition, out-of-state firms currently using Kentucky business services might choose to use untaxed services in a state that does not tax the service.

Florida addressed this problem by exempting out-of-state sales of business services from the sales tax and by requiring Florida users of services from out-of-state firms to pay a use tax on these services. Two difficulties with this solution were that it was difficult to apportion service revenues to a specific state for services used in both Florida and other states and it was difficult to collect the use tax from Florida residents using out-of-state services.⁷

⁷ In fact, Kentucky has the same tax on the use of out-of-state purchases of goods or services that are liable to Kentucky's tax.

It is worth noting that this same argument about reducing the competitiveness of Kentucky business can, and was in the case of health care providers, be made about consumer services and purchases. Undoubtedly there will be some loss of business in Kentucky if it expands its tax on consumer services and surrounding states do not. However, it seems much less likely that residents would “shop around” to find states where they could avoid sales taxes, particularly on health services which are primarily paid for by third-party payers.

Principles of tax analysis, particularly those related to the inefficiency associated with taxation, as well as the changing patterns of consumption, both argue for the expansion of the sales tax base to services. The advantages of broadening the tax base include increased revenues while avoiding tax rate increases that lead to substantial increases in inefficiencies. In addition, an expanded sales tax base should become a more reliable source of revenue—both more stable and more likely to keep pace with personal income.

Conclusion

In general, Kentucky is a relatively typical state in its tax structure, with its tax rates similar to most states, though perhaps having higher rates than its surrounding neighbors. The major difference between Kentucky and other states is the much lower share of local taxes in the total of state and local taxes, as well as Kentucky’s greater reliance than most states on its individual income tax for general revenue.

Kentucky’s reliance on the individual income tax does not appear to be a design strategy; instead it is the result of the shift from a manufacturing- to a service-based economy. The result of the combination of this shift in the economy and Kentucky’s narrow sales tax base has led to sales tax revenue failing to keep pace with total revenue. To provide stability and avoid higher, inefficient tax rates, the sales tax base should be broadened to include personal services.