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Measurement and Assessment of Efficiency and Productivity in Kentucky State Government Services

William H. Hoyt, Principal Investigator
November, 2004

Submitted to
The Office of the Governor of the Commonwealth of Kentucky

Center for Business and Economic Research
Department of Economics
University of Kentucky

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Dr. John E. Garen, Interim Co-Director



Executive Summary

Purpose and General Framework

- This report examines the provision of a variety of government services within Kentucky. The provision of these public services, specifically the cost of providing these services is examined for the years 1992, 1997, and 2002. In addition, employment and salaries in government services are also examined. In addition to comparing costs within Kentucky during this period, the costs of providing public services are also compared to costs of the same government services by its neighboring states (Illinois, Indiana, Missouri, Ohio, Tennessee, Virginia, and West Virginia).
- For most of the services and government functions, cost comparisons are made on a per capita basis in 2002 dollars. Employment is also adjusted to reflect differences in population. Salary comparison are adjusted for inflation and in some cases also adjusted to reflect differences in private earnings among the states.
- It is important to note that differences in costs by themselves, particularly when measured on a per capita basis, do not imply differences in government performance or the efficiency in the provision of government services. For some services, population may not be a very accurate measure of the client base or determinant of costs. For a number of government functions we use alternative measures as a base for costs. For example, correction costs are on an inmate basis, education costs on a per student basis, highway costs on mileage basis, and parks and recreation on a visitor basis. While we believe that these alternative bases for costs more accurately reflect the determinants of costs, they, too, fail to reflect differences in the quality or extent of services.
- Despite these qualifications about the measurement of both the quantity and quality of government services, we believe that the measurement of costs done in this study represents a unique effort among state governments and provides important information about service production for state governments. While the evidence presented in this study is not, by itself, conclusive regarding efficacy of provision of public services we believe it can serve to direct state governments about what services might need to be investigated more thoroughly. From our review of the efforts of other states at performance management or “benchmarking”, this study is unique in the extensive quantification of costs and comparisons of these costs over both time and among other states. While the more qualitative approach found in the typical performance evaluation study has value, we believe that our focus on costs complements the approach in these other studies of assessing quality in performing a service.
- The study is divided into five sections. The first section is a brief introduction. In the second section we provide some data on the demography of Kentucky and its neighboring states as well as some information about the economic structure of these states. These data are from the 2000 (and 1990) Census of Population and Housing. In *Section 3*, we report on aggregate government spending and employment without regard to government functions or services. *Section 4* reports on government spending, employment, and earnings by government functions. The government functions we include are Central Administration; Financial Admini-

stration; Corrections; Primary and Secondary Education; Higher Education; Health and Hospitals; Highways and Roadways; Judicial and Legal services; Natural Resources and Parks and Recreation; Police Protection; and Public Welfare. *Section 5* represents a distinct departure from the preceding section as it focuses on the use of best practices and performance measures in other states.

- While the study is designed to be on state government services, there is significant variation among the states to which we compare Kentucky about the responsibilities of state and local governments. Kentucky, along with West Virginia, has the greatest share of state and local spending coming from the state. Therefore for most of the services we examined we felt it important to examine both state and combined state and local spending and employment. In addition, even if the state is not the level of government at which spending occurs it is frequently the financer of these expenditures, particularly for Kentucky.

A Few Key Points

- Given the length of this report and the large amount of data contained in it, we offer a somewhat lengthy summary of the findings from sections 2 – 5. However, before this lengthy summary, we wish to state what we believe are some potentially important findings of our study.
- **Spending in Kentucky** is much more centralized. A much higher percentage of state and local spending is done by the state government in Kentucky. For many, if not most, categories, Kentucky frequently has the highest level of state spending. Focus on state spending alone can be misleading as it is frequently balanced by lower rates of spending by local governments. For most functions, it is necessary to look at combined state and local spending.
- **Central Administration** salaries for state employees are much higher than is found in other states or the U.S. average.
- In **Primary and Secondary Education**, during the period 1992 to 2002, the ratio of students to teachers has changed little; however, the ratio of students to administration and staff has dropped significantly. It appears most of this movement is due to increases in staff rather than administrators.
- **Higher Education** was well funded in Kentucky during the 1990's though faculty salaries lag other states.
- While **Highway** expenditures in Kentucky are high on a per capita basis, on a measure based on highway usage expenditures are relatively low.
- **State Park and Recreation** expenditures and employment when measured on a per visitor basis is extremely high in Kentucky, several times the U.S. average.
- **State Police officer** salaries lag other states though other staff in police protection are relatively well paid.
- **Public Welfare** spending on a per capita basis in Kentucky is high. Like other states TANF rolls have been dramatically reduced since 1996. This has reduced cash assistance payments. However, vendor payments, most likely attributable to growth in Medicaid have been steadily increasing.

- Kentucky appears to be behind its neighboring states in terms of developing **performance measures** and a systematic approach to review of government agencies based upon the use of quantifiable performance measures. However, while other states have discussed and planned on using **benchmarking** with respect to other states, its implementation appears limited. We found that while numerous states attempt to measure outputs and benchmark based on them, there appeared to be no efforts to compare or benchmark based on costs.

A Brief Summary

Section 2: Some Basic Facts about Kentucky

- Kentucky is smaller in population than its neighboring states, only exceeding West Virginia in population (*Table 2.1*).
- Kentucky is much less urban than other states and the U.S. with 56% of Kentucky's population in urban areas compared to 75% for the U.S. Kentucky has a lower minority population than most of the other states and a relatively low percentage of its households are over 65 (*Table 2.1*).
- Household income in Kentucky was \$33,672 in 2000, only above that of West Virginia of our neighboring states. Median earnings in Kentucky were also much below those found in its neighboring states and its poverty rate of 15.8% was second only to that of West Virginia and well above the U.S. rate of 12.9%. While unemployment was not particularly high, only West Virginian had a smaller percentage of adults 18 to 65 employed. However, Kentucky's employment rate of 44.5% was not much different than the U.S. rate of 45.8% (*Table 2.2*).
- Education attainment, relative to neighboring states, was low, with Kentucky having the highest percentage of adults, twenty five years of age or older, without a high school degree (*Table 2.3*).
- Kentucky has a significantly higher percentage of its population in farm employment than its neighbors. It also has relatively high employment in manufacturing, mining, and state government and relatively low employment in services, finance, insurance, and real estate, and local government (*Table 2.4*).

Section 3: Aggregate and Current Spending

- Kentucky's government expenditures are extremely centralized with 74.1% of all state and local government spending done by the state in 2002. Only West Virginia (78.9%) had a higher rate and the U.S. average was 62.5% (*Table 3.1* and *Figure 3.1a*).
- Kentucky's total state expenditures per capita of \$4,500 were 3rd among its comparison states in 2002 (*Table 3.4a*) and only slightly above the U.S. average. However, Kentucky was near the bottom in terms of state intergovernmental expenditures (*Table 3.4b*) and second only to West Virginia in terms of state direct and current expenditures (*Tables 3.4c and 3.4d*). Kentucky had the highest state capital expenditures per capita in both 1992 and 2002 and ranked second in 1997 (*Table 3.4e*).
- In contrast, when examining combined state and local per capita expenditures Kentucky ranked near the bottom in all broad categories (total, direct, current, capital) (*Tables 3.5*).
- The average monthly salary for all state employees in Kentucky was \$3,115, the fourth highest of the eight states and almost \$400 below the U.S. average in 2002 (*Table 3.7b*).

When accounting for differences in private wages among the states, Kentucky has the highest average salary for state employees (*Table 3.7a*).

- Kentucky had the highest rate of state employees (19.10 per 1000) in 2002, significantly above the U.S. average of 19.10 (*Table 3.9*). Its rate of combined state and local employment of 56.25 is slightly above the U.S. average of 54.29 and second among the eight states (*Table 3.10*).

State and Local Government Expenditures and Employment by Government Function

Central Administration

- Both expenses and employment in central administration are low. However, Kentucky has the second highest per capita state central administration expenditures (\$21 in 2002) significantly above the U.S. average of \$14 in 2002 (*Table 4.A.2*). Kentucky has the highest rate of state employment (.35 per 1000 in 2002) and state and local employment (1.01). Employment at both levels of government has increased at relatively high rates in Kentucky from 1992 to 2002 (*Tables 4.A.4 and 4.A.5*). While the \$69 per capita on state and local central administration is above the U.S. average of \$63 several states have higher combined spending on central administration (*Table 4.A.3*).
- More of a concern for costs is that average monthly compensation for state employees in central administration is the highest among the states even when not accounting for differences in private earnings. In 2002, the average salary for state central administration employees was \$4,238 in Kentucky compared to the U.S. average of \$3,625 (*Table 4.A.6*).

Financial Administration

- Kentucky's expenditures, employment, and salaries for financial administration were relatively low at both the state and local levels of government.

Corrections

- On both a per capita basis and per inmate basis, expenditures on corrections in state prisons were relatively low as was employment per 100 inmates. Salaries as well were low, even when adjusting for differences in private wages among the states.

Primary and Secondary Education

- Kentucky ranks near the bottom in spending per student in primary and secondary education. The 2.22% per annum real increase in spending from 1992 to 2002 is similar to other states (*Table 4.D.1*).
- From 1992 to 2002 there has been little change in the student to teacher ratio in Kentucky and it is the second highest of the eight comparison states. In contrast, there have been dramatic decreases (6.8% per annum decrease) in the ratio of students to administration indicating significant increases in administration. It appears that most of this change is not in administrators but administrative staff (*Table 4.D.2*).

Higher Education

- From 1992 to 2002, Kentucky had a higher state appropriation per capita for higher education than any of its neighboring states. Kentucky's per student appropriation of \$6,966 in 2002 was second only to that of Illinois. From 1992 to 2002, real appropriations per student grew at a per annum rate of 8.88% and real appropriations per capita grew at a rate of 3.7%. Both were the highest rates among the states (*Tables 4.E.1 and 4.E.2*).
- Average tuition for Kentucky was relatively low and the 4.9% real annual change was also relatively low (*Table 4.E.3*).
- Salaries in Kentucky for 4-year and 2-year institutions were well below the U.S. average in 1999-2000 with the differences most pronounced for 4-year non-University institutions and 2-year institutions (*Table 4.E.5*).

Health and Hospitals

- Generally expenditures and employment in health services and public hospitals in Kentucky are similar to the other states. The exceptions are state and local employment in health services in 2002 with the Kentucky's rate of employment of 1.76 per 1000 well above the U.S. average of 1.49 and essentially the same as the state with the highest rate, Ohio (*Table 4.F.3*).

Highways

- Kentucky's state and local per capita highway expenditures of \$477 in 2002 were only exceeded by the \$576 per capita in West Virginia (*Table 4.G.2*). However, when measured on a per mile of traffic flow basis Kentucky's cost of \$55 per mile of traffic flow is significantly lower than most states and half the rate of some of its neighbors (*Table 4.G.6*).

Judicial and Legal Services

- Judicial and Legal services are much more concentrated at the state level in Kentucky. Not surprisingly, state judicial and legal services on a per capita basis are high; however, for combined state and local expenditures, Kentucky is about average.

Natural Resources and Parks and Recreation

- Both natural resource and park and recreation services are much more concentrated at the state level in Kentucky than in most states. Kentucky ranks high in per capita state expenditures on parks and recreation and employment per 1,000 (*Tables 4.I.7 and Table 4.I.8*).
- When using visitors as a basis for comparing costs and employment, Kentucky has costs three times the U.S. average and employment four times the U.S. average. While Kentucky has revenues covering a greater share of its park costs than most states, it is not enough to make up for these differences in costs (*Tables 4.I.12-4.I.14*).

Police Protection

- While Kentucky has high per capita state expenditures and employment on police protection, combined state and local expenditures and employment were quite low relative to the other states during the period 1992 to 2002 (*Table 4.J.1-4.J.4*).

- A much lower percentage of Kentucky's state police have administrative duties as their primary function (*Table 4.J.7*).
- Even when adjusting for differences in average earnings in the state, salaries for state police officers are significantly below those found in other states. In 2002, Kentucky state police officer salaries lagged the U.S. average by almost \$900 a month (*Table 4.J.8*). In contrast, non-officer staff is compensated relatively well (*Table 4.J.10*).

Public Welfare

- Like other states, Kentucky has seen a dramatic decrease in welfare (AFDC and TANF) roles since welfare reform in 1996. This is responsible for a 16% annual real reduction in cash assistance per capita from 1992 to 2002 (*Table 4.K.5*).
- At the same time, vendor payments, most likely driven by payments to Medicaid vendors rose at a 4.7% per annum rate (*Table 4.K.6*).
- Administrative costs for TANF were 13% of total costs for Kentucky in 2001. This is the highest rate among the group of states (Virginia and Tennessee are also at 13%) and compares with a national average of 9% (*Table 4.K.8*).

Section 5: Best Practices and the Use of Performance Measures in Other States

- The past ten years has seen the growth of numerous non-profit professional organizations or research institutions that focus on issues related to performance and efficiency in the provision of government services. A list of some of these organizations and some of the publications they produce related to performance measures and best practices is found in *Table 5.1*.
- Several of Kentucky's neighbors have implemented the use of performance measures to evaluate agencies and strategically plan for budgetary and other purposes. A number of these states have created agencies or, more frequently, divisions with agencies (and websites) that specifically focus on the use of planning and evaluation practices that involve the use of performance measures (*Table 5.2*). Beyond Kentucky's neighbors, a majority of states have made at least some efforts to implement or, at least research, the use of best practices and performance measures.
- In addition to performance measures that are intended to gauge the performance of a single agency's service to its clients, a number of states have adopted broader measures of state well-being or quality of life (*Appendices 5.4 and 5.5*) that are quantifiable and used in evaluating the performance of state government agencies.

Possible Extensions and Further Research

- ***Centralized versus Decentralized Provision*** In Kentucky, the state government has a significantly greater role, as measured by both expenditures and employment, in providing and financing government services. This is true for almost all government functions and is dramatically different in the case of some services. In the case of some government services, centralized provision by the state government might be the most efficient method; however, for some services provision by local agencies might prove more efficacious. Given that Kentucky is an "outlier" in this respect, further investigation of what level of government should provide services might be warranted.

- ***Privatization*** In this study we did not discuss the issue of privatization of government services. Privatization can mean either: 1) not have government-funded provision and rely on provision in the private sector or 2) government-funded provision done by private firms and organizations. Of course, for many of the government functions we examine, privatization in the sense of the second definition is already done. Examples include private construction companies involved in highway construction and physicians receiving Medicaid payments. However, for other government functions and occupations within government, little of this form of privatization exists. There is evidence for at least some activities performed by either public or private employees (for example, waste collection), frequently costs are lower in the private sector than they are in the public sector.
- ***Costs versus Performance Measures*** A limitation of this study, as noted throughout the study, is its focus on costs without adequate measures of outputs or quality of the services. Performance measures are attempts to measure outputs of government agencies or, alternatively, the results of their efforts. While we believe the use of performance measures to evaluate and benchmark agency performance, we also believe that current state practices, by effectively benchmarking only on performance and not on costs, limits the usefulness of performance measures. We believe that benchmarking based on costs, such as is done in this study, complements the practice of benchmarking on performance. Efficient provision is neither lowest cost provision without regard to service quality or performance nor is it highest quality or performance without regard to cost. Efficient provision, in its simplest terms, is about providing services at the lowest cost per unit of output, however that might be measured.
- ***Appropriate Benchmarks and Cost Adjustments*** Our group of states to which we compare Kentucky, its geographical neighbors, is a logical choice in several respects with perhaps the most important being that these might be the states for which we must compete with for industry and economic development. However, there are differences among these states that might affect the costs of providing government services. For some services such as central or financial administration or highways, there might be economies of scale, that is, lower per capita costs as population increases because much of the cost of these services is overhead or otherwise unrelated to population. If this is the case, comparisons of costs in Kentucky to states with greater populations may lead to the unjustified conclusion that Kentucky, relative to these more populated states, is providing its services inefficiently. For highway and roadways, it might also be argued that comparisons based miles of highway, as done here, may misleadingly suggest that Kentucky is more efficient than its more northern neighbors. Costs of government services are influenced by multiple factors: geography, demography, population, climate, and economic conditions as well as the quality of the government service. There are statistical techniques economists use to estimate a cost function, a relationship between the cost of the public service and any number of factors expected to influence costs. We would urge the consideration of engaging in this exercise with the expansion of the “benchmark” states.

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Section 1. Introduction

In this report, the Center for Business and Economic Research (CBER) undertakes an analysis of trends and comparisons of spending in Kentucky on state and, when appropriate, local public services and government functions. We focus on trends in spending from 1992 to 2002 whenever possible and, on occasion, more recent years as well. In addition to examining trends in government spending in Kentucky, we also compare spending in Kentucky to Kentucky's neighboring states: Indiana, Illinois, Missouri, Ohio, Tennessee, Virginia, and West Virginia. To ensure meaningful comparisons of spending over time, we report adjust all spending measures to account for inflation and report in 2002 dollars; to ensure meaningful comparisons among the states, we adjust by population, generally report spending in terms of per capita spending or, depending on the government function, spending per unit of output or service.

We first examine trends and make comparisons for broad spending categories without reference to a specific service or function. After examining general levels of state and local government spending we then examine spending for specific government functions including central administration, financial administration, primary and secondary education, higher education, corrections, health and hospitals, highways, social insurance, and welfare.

In addition to examining trends and comparisons in spending, we also examine trends in employment and salaries, again for general government services and then by function. Again we adjust for differences in population or output when making comparisons among states. Comparisons in salaries are adjusted for inflation and, as explained later, for differences in relative private wages among states.

Data for this study comes from several sources and is reported in numerous tables and figures. To ensure consistency, for the most part, data is from federal sources including the U.S. Census Bureau Division of Governments and the National Center for Educational Statistics in the U.S. Department of Education.

It is not the purpose of this study to offer an explanation as to why Kentucky might be spending more or less over time or than other states for government services or specific government functions. Indeed, such a task is beyond the scope of this project. Numerous reasons for differences in spending are possible. One limitation in our analysis is the difficulty in reliably measuring "output" of a government service or function or the quality with which it is provided. When possible we do attempt to make some attempts to measure the number of customers or clients (inmates for corrections and students for education, for example) but even these measures do not control for differences in the quality of services. In addition, there are substantial differences in the populations of Kentucky and its neighbors with only West Virginia having a smaller population. If there are significant economies of scale or diseconomies of scale in the provision of some government functions, costs per capita or client cannot not expected to be the same among states of very different populations.

The findings we report here might be best used to suggest what functions or services merit further review as the cost of providing them, as measured here, is substantially above, or in

some cases, below the costs in other states or in earlier years. Further review might included more sophisticated means for accounting for differences in the state's demography, climate, and economy that might explain some of these differences in the cost of providing services.

In the next section, we provide some basic facts about Kentucky and its population. These facts will, we believe, provide some context and help in understanding some of the differences in the provision and cost of government services between Kentucky and its neighboring states. In *Section 3* we make comparisons for aggregate spending and employment measures, both state and local, both over time and among states. We make similar comparisons for specific government functions in *Section 4*.

In *Section 5* we discuss efforts and studies by other states in "benchmarking" government functions. As we discuss in this section, the quantitative and data-driven approach taking in this study is unique and has not, to the best of our knowledge, been attempted by any other state.

Section 2. Some Basic Facts about the Kentucky Population

Tables 2.1 – 2.4 contain data from the 2000 Census of Population¹ on characteristics of Kentucky and its neighbor's population. From the Regional Economic Information System (REIS) information on employment has been obtained.² As *Table 2.1* shows Kentucky is the second smallest state (in population) in this group of states, is the second most rural, and is ranked eight among the states and United States average in the percentage of its population that is African-American. It is also ranked eight in the percentage of its population that is Hispanic. The percentage of households with children under 18 years of age in Kentucky is very similar to its neighboring states and the United States average; it ranks relatively low in the percentage of households over 65 years of age.

Table 2.2 provides data from the Census on income, earnings, and labor force participation. Again, Kentucky's income, both median family and per capita, and earnings, ages 16 and older, are only above West Virginia's levels and only West Virginia has a higher poverty rate. While in 2000, Kentucky's unemployment rate (5.7) was approximately the same as that in the United States (5.8) and in the middle of the range of these states, it had the lowest employment rate, that is, the percentage of its adult population (ages 16 and older) employed. A relatively high percentage of respondents to the survey in Kentucky reported themselves as disabled, meaning that a disability impairs their ability to be employed or function in their job if employed.

Table 2.3 provides data on the level of educational attainment for adults who are 25 years of age or older. Not surprisingly, the level of educational attainment in Kentucky is significantly lowering than that of its neighbors. Kentucky has the highest percentage of its adult population without a high school degree and the second lowest rate of college graduation.

Finally, *Table 2.4* provides information on the distribution of employment among industries among these states. Notably, Kentucky has the highest share of its labor force in farming among all these states with almost 5.0% of its labor force employed in farming. In addition, it is ranked second in mining and agricultural services. Also notable are its low ranking in Finance, Insurance, and Real Estate (*FIRE*) and Services. Lower employment in these sectors is consistent with the lower rates of college education found in Kentucky. Kentucky has, along with Virginia and West Virginia, the lowest percentage of its labor force in private employment. While Virginia has a high percentage of its labor force in the public sector, this is due to military personnel and federal employees. While Kentucky has a high percentage of its labor force in the military, there is relatively low federal employment. Local government employment is also relatively low but employment in the state government is second only to that of West Virginia.

¹ These data are available electronically from the United State Census Bureau, www.census.gov. All data in Tables 1.A – 1.C are from Census 2000 with the exception of the estimate of populations for 2003. These estimates are also available at the Census website and are obtained from estimates made by the Bureau of Economic Activity (BEA).

² The REIS is produced by the Bureau of Economic Activity using data obtained from County Business Patterns. The website is <http://www.bea.doc.gov/bea/regional/data.htm>.

Table 2.1: Population and Population Composition of Kentucky and its Neighbors, 2000¹

State	Population		Urban		White		African-American		Hispanic		Household with Children under 18		Households over 65	
	# (2003)	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Kentucky	4,117,827	7	55.8	8	90.1	2	7.3	8	1.5	8	33.0	5	31.6	7
United States	290,809,777		79.2	2	75.2	7	12.3	4	13.7	1	33.5	2	33.1	4
Illinois	12,653,544	1	87.8	1	73.5	8	15.1	3	12.3	2	33.6	1	32.6	5
Indiana	6,195,643	4	70.8	5	87.5	3	8.4	7	3.5	4	33.4	3	32.2	6
Missouri	5,704,484	6	69.4	6	84.9	5	11.2	6	2.1	6	32.4	6	34.4	2
Ohio	11,435,798	2	77.4	3	85.0	4	11.5	5	1.9	7	32.2	8	33.9	3
Tennessee	5,841,748	5	63.6	7	80.2	6	16.4	2	2.2	5	32.2	7	31.5	8
Virginia	7,386,330	3	73.0	4	72.3	9	19.6	1	4.7	3	33.2	4	29.3	9
West Virginia	1,810,354	8	46.1	9	95.0	1	3.2	9	0.7	9	29.3	9	37.5	1

¹Source: Census 2000(www.census.gov).

Table 2.2: Income and Employment Measures for Kentucky and its Neighbors, 2000¹

	Median Household Income		Income per Capita		Income below poverty level		Median Earnings		Unemployed		Employed		Disabled	
	\$2,000	Rank	\$2,000	Rank	%	Rank	\$2,000	Rank	%	Rank	%	Rank	%	Rank
Kentucky	33,672	7	17,819	7	15.8	2	20,951	7	5.7	4	44.5	8	9.9	3
United States	.		21,067		12.9		.		5.8		45.8		8.2	
Illinois	46,590	2	22,760	2	10.7	6	25,890	1	6.0	2	47.0	5	8.8	6
Indiana	41,567	3	20,076	4	9.5	9	23,229	4	4.9	8	48.8	1	7.2	8
Missouri	37,934	5	19,618	5	11.7	5	21,751	5	5.3	6	47.5	4	10.9	2
Ohio	40,956	4	20,694	3	10.6	7	23,949	3	5.0	7	47.6	3	9.6	4
Tennessee	36,360	6	19,120	6	13.5	3	21,700	6	5.4	5	46.6	6	11.2	1
Virginia	46,677	1	23,506	1	9.6	8	25,357	2	4.1	9	48.2	2	9.5	5
West Virginia	29,696	8	16,322	8	17.9	1	19,159	8	7.3	1	40.5	9	6.4	9

¹Source: Census 2000(www.census.gov).

Table 2.3: Educational Attainment of Residents of Kentucky and its Neighbors, 2000¹

	Less than High School		High School Graduate		Some College		Some College or Associate		College or More	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Kentucky	25.9	1	33.6	4	18.5	8	23.4	8	17.1	8
United States	19.7	4	28.6	7	20.9	3	27.2	2	24.4	3
Illinois	18.4	7	27.8	8	21.6	2	27.7	1	26.1	2
Indiana	17.8	8	37.2	2	19.7	7	25.5	6	19.4	7
Missouri	18.6	5	32.8	5	21.9	1	27.0	3	21.6	4
Ohio	17.0	9	36.1	3	19.8	6	25.7	5	21.1	5
Tennessee	24.1	3	31.6	6	20.0	5	24.7	7	19.6	6
Virginia	18.5	6	26.0	9	20.4	4	26.0	4	29.5	1
West Virginia	24.8	2	39.5	1	16.6	9	20.9	9	14.8	9

¹Source: Census 2000(www.census.gov).

Table 2.4: Share of Employment, by Industry, of Kentucky and its Neighbors, 2003¹

	Farm	Private	Agricultural Services	Mining	Construction	Manufacturing	Transportation and Public Utilities	Wholesale	Retail Trade	Finance, Insurance, Real Estate	Services	Federal Government	Military	State Government	Local Government
Kentucky	4.8	80.4	1.2	1.0	5.8	14.1	5.4	4.0	17.1	5.6	26.2	1.7	2.1	3.9	7.2
United States	1.9	84.4	1.3	0.5	5.7	11.4	4.9	4.5	16.4	7.9	32.0	1.7	1.2	3.0	7.7
Illinois	1.4	86.6	0.9	0.2	5.0	12.9	5.5	5.2	15.5	9.1	32.3	1.3	0.8	2.2	7.7
Indiana	2.2	86.1	0.9	0.2	5.8	18.9	4.8	4.3	17.8	6.3	27.1	1.2	0.6	3.0	6.9
Missouri	3.5	83.1	1.0	0.2	5.8	11.7	6.0	4.6	16.7	7.5	29.5	1.8	1.1	3.2	7.3
Ohio	1.5	86.5	0.9	0.3	5.2	16.1	4.4	4.7	17.7	7.3	29.9	1.3	0.5	2.5	7.7
Tennessee	3.0	85.0	0.9	0.2	6.0	14.8	6.0	4.6	16.8	6.8	28.8	1.5	0.7	2.6	7.1
Virginia	1.4	80.4	1.1	0.3	6.4	9.1	4.8	3.7	16.1	7.1	31.9	3.7	3.8	3.4	7.3
West Virginia	2.5	80.4	0.8	3.0	5.5	9.5	5.0	3.7	17.9	5.3	29.6	2.5	1.1	5.2	8.2
Rank															
Kentucky	1	8	2	2	3	4	4	7	4	8	9	5	2	2	7
United States	6	5	1	3	6	7	6	5	7	2	2	4	3	6	4
Illinois	9	1	6	6	9	5	3	1	9	1	1	7	6	9	2
Indiana	5	3	7	7	5	1	7	6	2	7	8	9	8	5	9
Missouri	2	6	4	8	4	6	2	4	6	3	6	3	5	4	5
Ohio	7	2	8	4	8	2	9	2	3	4	4	8	9	8	3
Tennessee	3	4	5	9	2	3	1	3	5	6	7	6	7	7	8
Virginia	8	9	3	5	1	9	8	9	8	5	3	1	1	3	6
West Virginia	4	7	9	1	7	8	5	8	1	9	5	2	4	1	1

¹Source: Regional Economic Information System (REIS) for 2003, (www.bea.gov).

Section 3. Aggregate and Current Government Spending

Before considering spending on each of the separate government functions in detail, we first provide some recent data on aggregate spending in Kentucky and its neighboring states.³ In addition, we offer data suggesting how responsibilities for the revenue collection and the provision of government functions (expenditures) often differs significantly among states.

In *Table 3.1* the share of state spending is allocated by type of spending (current or capital, wages and salaries, assistance and subsidies, and insurance). In *Table 3.2* the share of state spending in total state and local spending is disaggregated by government function. As the table indicates, for some functions, states are very similar in how spending is allocated between state and local governments. These are general functions performed exclusively by state governments such as social insurance and public welfare. With the exception of Illinois and Missouri, public higher education is primarily financed by state governments. Kentucky bears a much higher share of expenditures on highways, parks and recreation, and primary and secondary education than any neighboring states and the United States average. The same is true for both financial and judicial and legal administration. Only in health and corrections is the Kentucky's state share below the national average and in these cases it is only slightly below. *Figures 3.1a – 3.1h* provide charts illustrating these same differences in the allocation of spending between state and local government for Kentucky and its neighbors.

The significant differences in how spending is allocated between state and local governments among our group of states suggests that for much of our analysis the examination of state and local expenditures, rather than only state or only local, is appropriate.

Meaningful comparison of expenditures over time require adjusting for changes in the base population, or for some government goods or services, some measure of the good produced or population being served. For this reason we generally report expenditures on a per capita. In addition, changes in prices need to be accounted for when comparing expenditures over time. All expenditures here are reported in 2002 dollars meaning that expenditures in early years (1992, 1997) are inflated to 2002 values using the Consumer Price Index (CPI) produced by the U.S. Department of Labor, Bureau of Labor Statistics and reported in *Table 3.3*.

In addition to examining expenditures and employment, we also report trends and comparisons in salaries for the government functions. To make meaningful comparisons among the states and over time we adjust the reported salaries in two ways. First, salaries are adjusted for inflation and reported in 2002 dollars as is done with expenditures using the CPI. Second, we adjust for differences in the general level of salaries and wages among the states. Specifically, we create a wage index, reported in *Table 3.6*, to adjust for differences in the general level of wages and salaries among states. Thus, if a state has higher private sector earnings, salaries in the public sector will be deflated to reflect the higher private sector compensation in that state. As *Table 3.6* shows workers in Illinois are paid 18% more than workers in Kentucky, on average, so

³Data on government spending, both state and local, reported in this section are obtained from the U.S. Census Bureau surveys of state governments (U.S. Census Bureau Governments Division Annual Survey of Government Finances and Annual Survey of Government Employment) to obtain figures (estimates) of government finances and employment in years in which a census is not undertaken (<http://www.census.gov/govs/www/index.html>).

we would expect public sector employees to be paid more in Illinois as well. As the table shows of the neighboring states only West Virginia has lower wages on average.

Tables 3.4a-3.4e report state expenditures by type of spending. These tables, taken as a whole, confirm what was also seen in *Table 3.1* and *Table 3.2* – Kentucky’s expenditures and revenues are more centralized at the state level than is the case in its neighboring states. While in total state expenditures per capita (*Table 3.4a*) Kentucky has ranked either third or fourth, it ranked seventh in intergovernmental expenditures per capita in both 1997 and 2002 (*Table 3.4b*). In state direct expenditures per capita Kentucky (*Table 3.4c*) is ranked second from 1997 to 2003. In other categories in which intergovernmental transfers are excluded, such as state current expenditures (*Table 3.4d*) and state capital expenditures per capita (*Table 3.4e*) Kentucky is ranked either first or second, generally only trailing West Virginia. *Figures 3.2a – 3.2c* provide charts illustrating trends and comparisons in state per capita expenditures.

Tables 3.5a – 3.5e report the same per capita spending categories (total, direct, current, and capital) for combined state and local expenditures. Again, the very different mix of state and local spending is underscored in these tables – Kentucky while consistently at the top in state spending per capita is generally ranked between sixth and eighth. In current state and local expenditures per capita (*Table 3.5c*) Kentucky is ranked last throughout the 1992 – 2002 period spending almost \$800 less on combined state and local per capita spending in 2002. *Figure 3.3* illustrates differences among Kentucky and its neighbors in state and local total expenditures per capita for 1997 and 2002.

The focus of *Tables 3.7a – 3.7b* is the salaries of state employees. *Table 3.7b* reports the average monthly salary of state employees adjusted for inflation but not adjusted for geographical differences in salaries. For all three years reported, Kentucky is ranked in the middle (fifth or sixth) in salaries with average salary being almost \$400 per month less the U.S. average. However, when salaries are indexed based on differences in mean wages, intended to reflect differences in local labor markets, the rankings of salaries changes dramatically. Indexing for these differences in average state wages leads to Kentucky having the highest indexed salary among its neighbors in 2002. This finding indicates that while wages, both private and public, are on average 17% lower in Kentucky than the entire U.S., the difference in salaries for state employees in Kentucky is not nearly this great being only about 11.4% lower than the U.S. average. In determining an appropriate comparison, salaries only adjusted for inflation or salaries adjusted for inflation and general differences in salaries across the states, the nature and extent of the labor market for the state employee must be considered. For some occupations, the labor market is national or at least regional – then for these occupations, local market conditions are not relevant and comparisons based on salaries not adjusted for geographical differences in wages are appropriate. If, instead, state employees in an occupation are hired from local labor markets and tend to search within the state rather than the region or state the salaries adjusted for differences in mean wages in the state are appropriate for comparison. *Table 3.8* reports the average salary for all state and local employees indexed and adjusted for inflation. In contrast to state employees, when aggregated to include local employees, indexed salaries are not particularly high. This, of course, suggests that local employee salaries must be quite low relative to those in other states. The ranking for Kentucky has fallen from third in 1992 to sixth in 2002 with average real salaries falling by an annual average of -0.74%, the biggest decrease other than

Virginia. In contrast, real state salaries have risen 1.09% per annum well above the national average of 0.75%. *Figure 3.5* illustrates the differences in time and across the states in indexed and inflation-adjusted average monthly salaries for all state government employees and *Figure 3.6* does the same for all state and local government employees.

State government employment per 1,000 residents is reported in *Table 3.9*. Throughout the period 1992 – 2002 Kentucky had the highest rate of state employees per 1,000 residents among its neighbors. Its rate of 19.10 state employees per 1,000 residents in 2002 was well above the U.S. average of 14.69 with only West Virginia having a comparable rate (18.99 in 2002). However, the number of state employees (relative to population) has been decreasing at a annual rate of -0.61% per year, a much larger decrease than the U.S. average (-0.23%). Unlike salary comparisons, when state and local employment is combined (*Table 3.10*), Kentucky still remains very high with 56.22 state and local employees per 1,000 residents in 2002. This is second only to Virginia's rate of 56.40 and above the U.S. average in 2002 of 54.29. Again, reflecting the differences in the distribution of government services between state and local governments, the differences between the states in state and local employment are much smaller than the differences in found when only consider state government employment. In contrast to state government employment, state and local government employment has been growing relative to the population for Kentucky as well as for its neighboring states. Since state employment was declining relative to population, this means that local employment has been growing at rate that more than replaces any declines in state government employment. The rates of state government employment and state and local government employment are reported in *Figure 3.6* and *Figure 3.7* respectively.

Table 3.1: Share of State in State and Local Expenditures, 2002, By Classification¹

	Total Expenditures	Direct Expenditure	Current Operations	Capital Outlay Expenditures	Construction Expenditure	Assistance and Subsidies	Insurance Benefits and Repayments	Salaries and Wages
Kentucky	74.1	59.8	57.3	58.9	67.8	100.0	98.6	40.1
United States	62.5	44.8	41.5	35.1	36.2	73.1	86.8	27.7
Illinois	56.2	41.2	38.0	27.2	30.7	100.0	73.9	20.8
Indiana	61.2	43.1	40.4	39.3	48.1	94.8	94.0	27.9
Missouri	63.1	47.7	44.5	36.0	40.8	99.8	86.4	30.2
Ohio	65.8	46.9	38.8	34.0	38.1	92.0	98.9	25.6
Tennessee	54.7	42.4	40.6	37.3	39.0	99.8	81.7	29.5
Virginia	64.2	45.0	42.3	41.8	43.0	77.6	84.4	34.2
West Virginia	78.9	66.7	60.0	66.5	76.8	100.0	98.6	42.2

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances, 2002 (<http://www.census.gov/govs/www/financegen.html>)

Table 3.2: Share of State in State and Local Expenditures, 2002, By Function¹

	Higher Education	Primary and Secondary Education	Public Welfare	Health	Social Insurance	Highways	Correction	Parks and Recreation	Financial administration	Judicial and Legal Services
Kentucky	100	67	99	51	100	81	65	47	74	82
United States	84		85	53	100	61	68	16	55	46
Illinois	68	37	96	81	100	45	72	7	47	28
Indiana	100	55	89	73	100	64	74	11	51	30
Missouri	80	39	97	71	100	59	76	9	55	50
Ohio	92	49	80	30	100	54	77	11	54	17
Tennessee	100	48	98	75	100	64	58	26	38	47
Virginia	97	44	79	47	100	82	69	13	58	46
West Virginia	99	68	100	71	100	94	85	53	75	68

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances, 2002 (<http://www.census.gov/govs/www/financegen.html>)

Table 3.3: Consumer Price Index (CPI) for Urban Areas, 1992-2002¹

Year	CPI
1992	140.3
1993	144.5
1994	148.2
1995	152.4
1996	156.9
1997	160.5
1998	163.0
1999	166.6
2000	172.1
2001	179.9
2002	184.0

¹Source: U.S. Department of Labor, Bureau of Labor Statistics, (www.bls.gov).

Table 3.4a: State Total Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3,516	3,764	4,500	4	4	3	2.5
United States	3,578	3,806	4,455	3	2	4	2.2
Illinois	3,000	3,339	3,904	5	5	5	2.7
Indiana	2,834	3,173	3,606	7	7	8	2.4
Missouri	2,616	2,992	3,676	9	9	7	3.5
Ohio	3,591	3,780	4,610	2	3	2	2.5
Tennessee	2,693	3,038	3,459	8	8	9	2.5
Virginia	2,838	3,265	3,848	6	6	6	3.1
West Virginia	3,776	4,432	5,213	1	1	1	3.3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.4b: State Intergovernmental Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	828	848	870	4	7	7	0.5
United States	1,034	1,128	1,269	1	1	2	2.1
Illinois	750	865	1,040	6	6	5	3.3
Indiana	845	1,079	1,065	3	2	4	2.3
Missouri	694	829	895	8	8	6	2.6
Ohio	944	1,055	1,319	2	3	1	3.4
Tennessee	592	775	773	9	9	9	2.7
Virginia	712	904	1,148	7	5	3	4.9
West Virginia	825	1,008	805	5	4	8	-0.2

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.4c: State Direct Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1997	2000	2002	1997	2000	2002	
Kentucky	2,916	3,262	3,630	2	2	2	4.5
United States	2,677	2,860	3,185	4	4	4	3.5
Illinois	2,474	2,494	2,864	5	6	5	3.0
Indiana	2,094	2,370	2,542	9	8	9	4.0
Missouri	2,162	2,425	2,781	8	7	6	5.2
Ohio	2,725	2,968	3,291	3	3	3	3.8
Tennessee	2,263	2,334	2,686	7	9	8	3.5
Virginia	2,362	2,580	2,700	6	5	7	2.7
West Virginia	3,423	3,641	4,408	1	1	1	5.2

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.4d: State Current Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1,773	2,001	2,520	2	2	2	3.6
United States	1,647	1,812	2,160	3	3	3	2.7
Illinois	1,347	1,614	1,826	8	6	9	3.1
Indiana	1,498	1,566	1,895	4	7	8	2.4
Missouri	1,330	1,457	1,926	9	9	5	3.8
Ohio	1,400	1,559	1,915	7	8	7	3.2
Tennessee	1,465	1,641	2,059	6	5	4	3.5
Virginia	1,482	1,661	1,924	5	4	6	2.6
West Virginia	1,863	2,257	2,785	1	1	1	4.1

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.4e: State Capital Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	345	326	408	1	2	1	1.7
United States	256	254	313	5	7	4	2.0
Illinois	232	197	273	6	9	6	1.7
Indiana	223	242	262	8	8	8	1.6
Missouri	178	280	274	9	4	5	4.4
Ohio	259	278	272	4	5	7	0.5
Tennessee	309	283	243	2	3	9	-2.4
Virginia	227	270	320	7	6	3	3.5
West Virginia	266	373	405	3	1	2	4.3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.5a: State and Local Total Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	4,697	5,170	6,073	7	7	6	2.6
United States	5,865	6,217	7,125	1	1	1	2.0
Illinois	5,230	5,843	6,944	3	2	3	2.9
Indiana	4,568	4,966	5,896	8	8	8	2.6
Missouri	4,255	4,838	5,827	9	9	9	3.2
Ohio	5,357	5,746	7,010	2	4	2	2.7
Tennessee	5,112	5,775	6,328	4	3	5	2.2
Virginia	4,797	5,344	5,994	6	6	7	2.3
West Virginia	4,896	5,564	6,609	5	5	4	3.0

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.5b: State and Local Direct Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1997	2000	2002	1997	2000	2002	
Kentucky	5,170	5,647	6,073	7	7	6	3.3
United States	6,201	6,584	7,110	1	1	1	2.8
Illinois	5,843	6,396	6,944	2	3	3	3.5
Indiana	4,962	5,463	5,896	8	8	8	3.5
Missouri	4,838	5,311	5,826	9	9	9	3.8
Ohio	5,746	6,406	7,009	4	2	2	4.1
Tennessee	5,775	5,981	6,328	3	4	5	1.8
Virginia	5,344	5,720	5,994	6	6	7	2.3
West Virginia	5,564	5,874	6,609	5	5	4	3.5

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.5c: State and Local Current Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3,272	3,694	4,398	8	8	8	3.0
United States	3,983	4,546	5,210	1	1	1	2.7
Illinois	3,377	4,208	4,810	7	3	4	3.6
Indiana	3,485	3,928	4,689	4	7	5	3.0
Missouri	3,025	3,610	4,328	9	9	9	3.6
Ohio	3,526	4,100	4,934	3	4	3	3.4
Tennessee	3,831	4,491	5,077	2	2	2	2.9
Virginia	3,478	3,946	4,547	5	6	7	2.7
West Virginia	3,378	4,047	4,642	6	5	6	3.2

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.5d: State and Local Capital Expenditures per Capita (\$2002), Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	552	640	693	6	7	6	2.3
United States	687	736	891	1	3	2	2.6
Illinois	662	711	1,005	2	4	1	4.3
Indiana	521	600	666	8	8	7	2.5
Missouri	523	680	762	7	5	5	3.8
Ohio	586	643	799	5	6	3	3.2
Tennessee	658	741	652	3	2	8	-0.1
Virginia	590	752	765	4	1	4	2.6
West Virginia	441	556	608	9	9	9	3.3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 3.6: Mean Wage (May 2003) and Relative Wages¹

State	Wage	Rank	Relative to Kentucky	Relative to US
Kentucky	15.15	8	1.00	0.86
United States	17.70	3	1.17	1.00
Illinois	17.95	1	1.18	1.01
Indiana	15.90	6	1.05	0.90
Missouri	16.23	5	1.07	0.92
Ohio	16.77	4	1.11	0.95
Tennessee	15.34	7	1.01	0.87
Virginia	17.76	2	1.17	1.00
West Virginia	14.20	9	0.94	0.80

¹ Source: U.S. Bureau of Labor Statistics website (www.bls.gov) and are from surveys of May 2003. These are mean wages rather than median wage

Table 3.7a: Salaries, Average for All State Employees, Indexed and Adjusted for Inflation¹

	Monthly Salary, Indexed			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2,797	2,873	3,115	3	2	1	1.09
United States	2,790	2,747	3,008	4	5	5	0.75
Illinois	2,749	2,826	3,024	5	3	4	0.96
Indiana	2,925	2,726	2,861	1	6	6	-0.22
Missouri	2,477	2,396	2,557	8	9	9	0.32
Ohio	2,914	2,935	3,088	2	1	2	0.58
Tennessee	2,674	2,678	2,829	6	7	7	0.57
Virginia	2,430	2,478	2,803	9	8	8	1.44
West Virginia	2,643	2,783	3,031	7	4	3	1.38

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Employment for the relevant years (<http://www.census.gov/govs/www/apes.html>). Data are from October for years preceding 1997 and March for the fiscal year 1997 and beyond. Indexing and adjustment for inflation uses data from *Tables 2.3* and *2.6*.

Table 3.7b: Salaries, Average for All State Employees, Adjusted for Inflation¹

	Monthly Salary, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2,797	2,873	3,115	6	5	5	1.09
United States	3,259	3,209	3,514	1	3	2	0.75
Illinois	3,257	3,349	3,583	2	1	1	0.96
Indiana	3,070	2,861	3,002	4	6	6	-0.22
Missouri	2,653	2,566	2,739	8	9	9	0.32
Ohio	3,225	3,249	3,419	3	2	3	0.58
Tennessee	2,708	2,712	2,865	7	7	7	0.57
Virginia	2,848	2,905	3,286	5	4	4	1.44
West Virginia	2,477	2,609	2,841	9	8	8	1.38

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Employment for the relevant years (<http://www.census.gov/govs/www/apes.html>). Data are from October for years preceding 1997 and March for the fiscal year 1997 and beyond. Adjustment for inflation uses data from *Table 2.3*.

Table 3.8: Salaries, Average for All State and Local Employees, Indexed and Adjusted for Inflation

	Monthly Salary, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2853	3122	2648	3	4	6	-0.74
United States	2943	3203	2780	2	2	3	-0.57
Illinois	2824	3194	2677	5	3	5	-0.53
Indiana	2849	3069	2746	4	6	4	-0.37
Missouri	2701	2918	2527	9	9	8	-0.66
Ohio	2960	3287	2889	1	1	2	-0.24
Tennessee	2722	2937	2614	7	8	7	-0.40
Virginia	2707	3009	2504	8	7	9	-0.78
West Virginia	2740	3075	2926	6	5	1	0.66

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Employment for the relevant years (<http://www.census.gov/govs/www/apes.html>).

Table 3.9: State Government Employment per 1000, Residents Selected Years

	Employment per 1,000			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	20.31	18.44	19.10	1	1	1	-0.61
United States	15.04	15.03	14.69	6	6	5	-0.23
Illinois	11.75	11.82	11.65	9	9	9	-0.08
Indiana	16.81	14.87	14.66	4	7	6	-1.36
Missouri	14.26	16.55	16.18	7	3	4	1.27
Ohio	12.74	12.55	12.10	8	8	8	-0.51
Tennessee	15.11	15.41	14.48	5	5	7	-0.42
Virginia	18.17	15.83	16.57	3	4	3	-0.92
West Virginia	18.53	17.77	18.99	2	2	2	0.25

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Employment for the relevant years (<http://www.census.gov/govs/www/apes.html>).

Table 3.10 State and Local Government Employment per 1000, Residents Selected Years

	Employment per 1,000			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	52.47	53.14	56.25	3	4	2	0.70
United States	51.68	53.60	54.29	4	3	4	0.49
Illinois	47.51	50.35	51.08	9	8	9	0.73
Indiana	52.48	52.75	52.81	2	5	7	0.06
Missouri	47.64	54.10	55.12	8	1	3	1.47
Ohio	48.29	50.24	53.37	7	9	5	1.01
Tennessee	49.68	52.01	52.91	6	6	6	0.63
Virginia	54.60	53.81	56.40	1	2	1	0.33
West Virginia	50.31	50.70	51.61	5	7	8	0.26

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Employment for the relevant years (<http://www.census.gov/govs/www/apes.html>).

Figure 3.1a: Share of State Spending in Total Expenditures, 2002

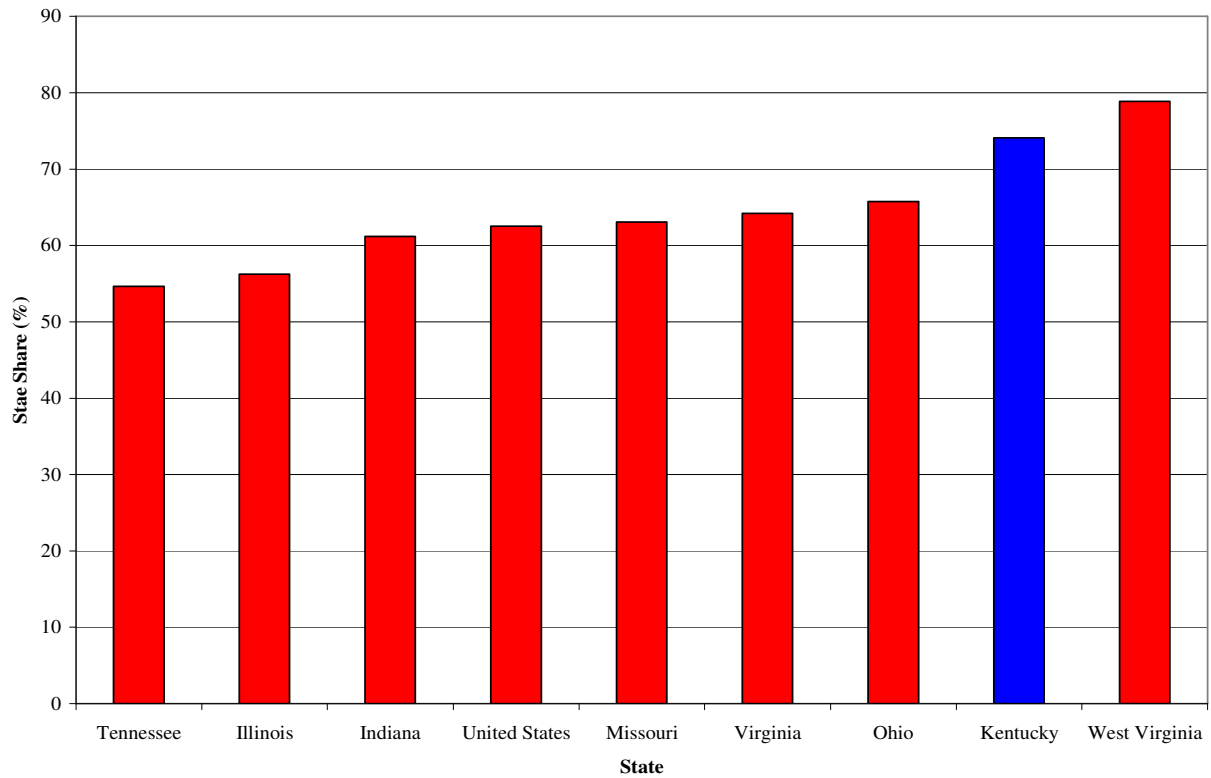


Figure 3.1b: Share of State Spending in Direct Expenditures, 2002

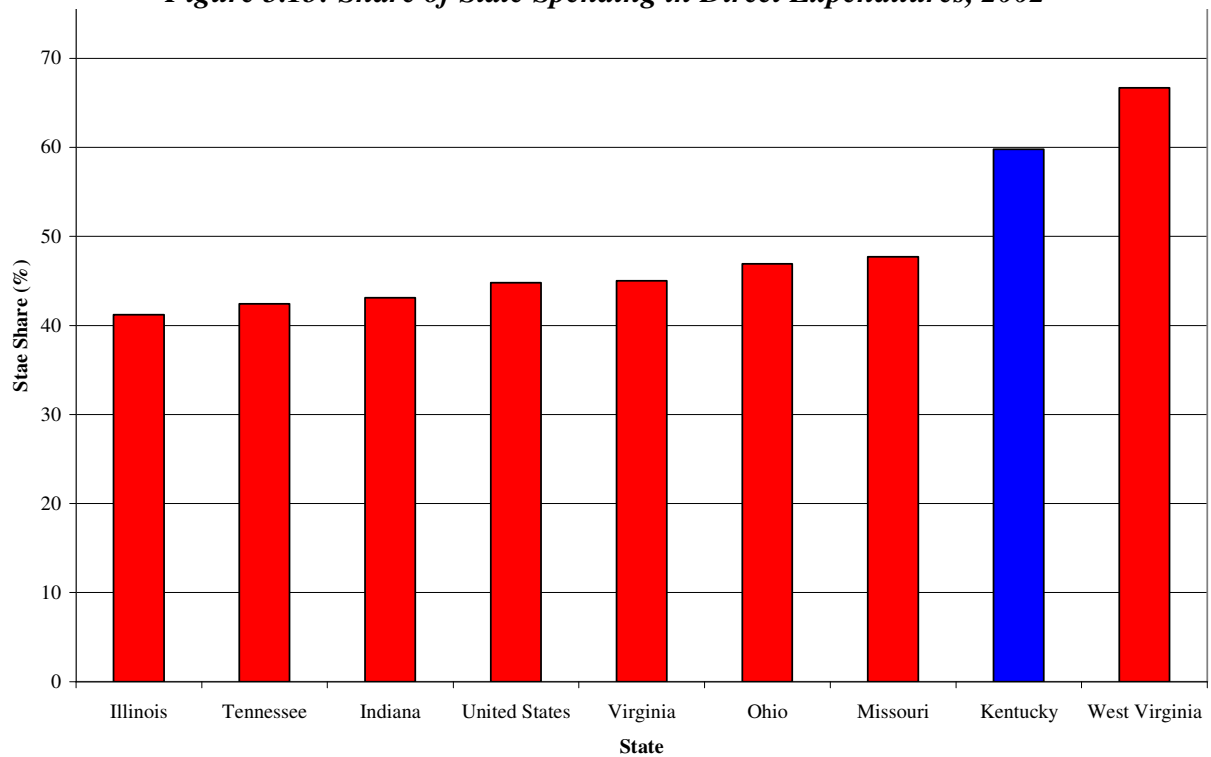


Figure 3.1c: Share of State Spending in Current Operations, 2002

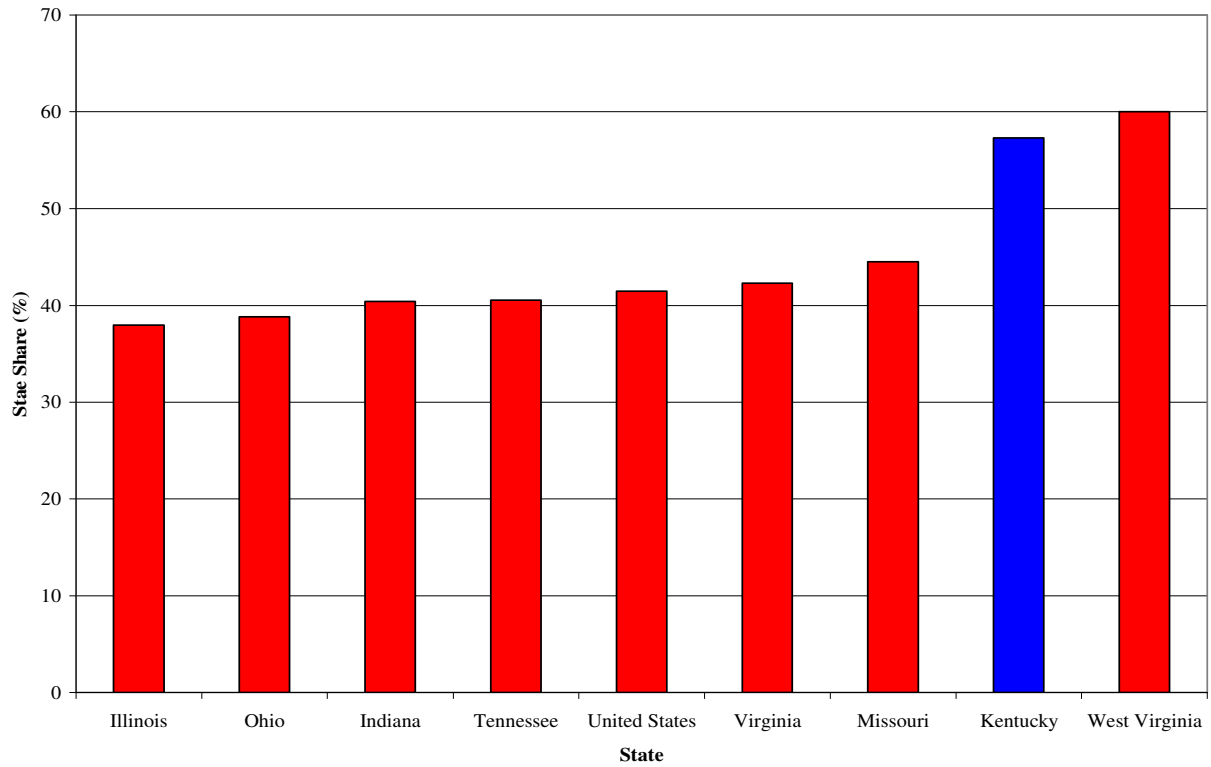


Figure 3.1d: Share of State Spending in Capital Outlays (Total), 2002

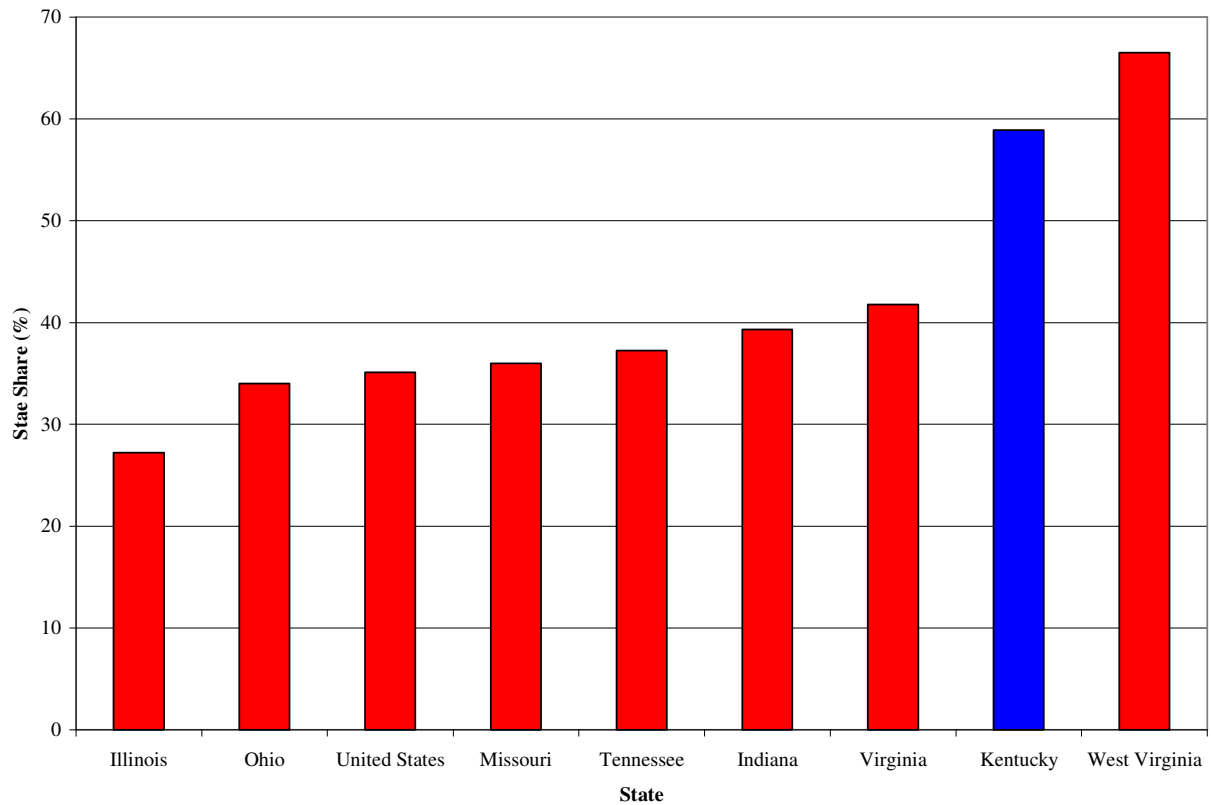


Figure 3.1e: Share of State Spending in Capital Outlays (Construction), 2002

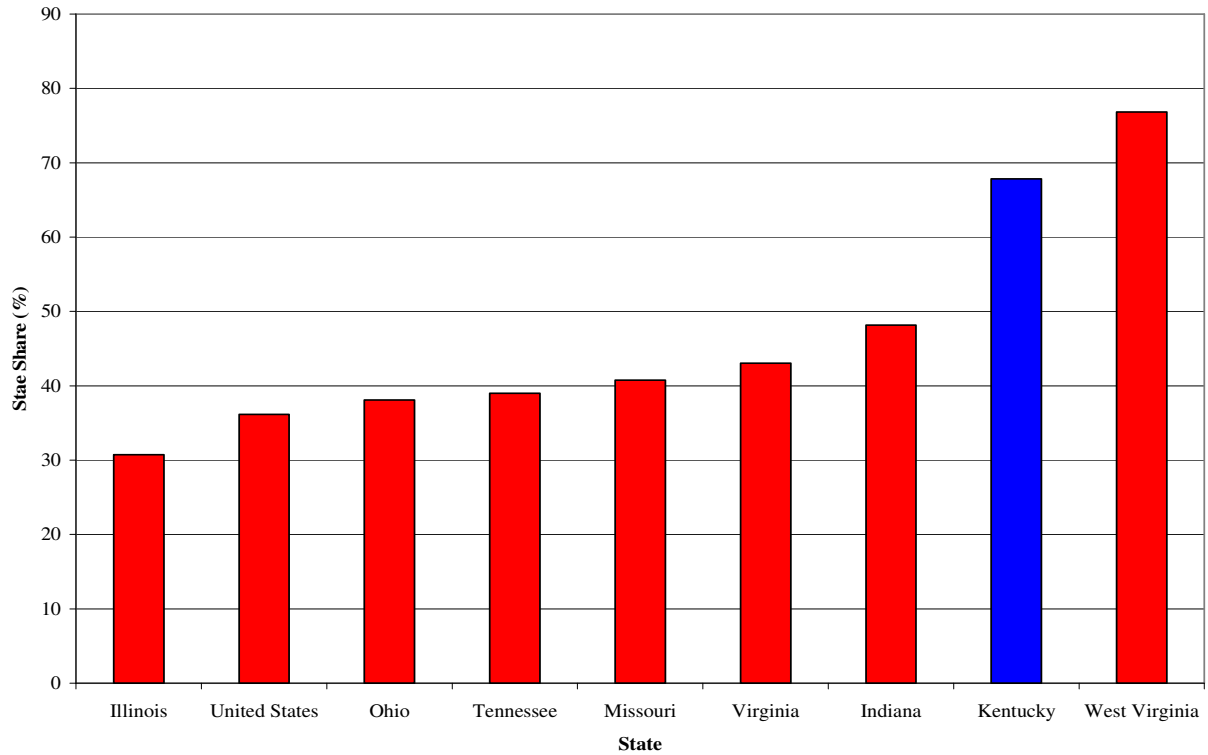


Figure 3.1f: Share of State Spending in Assistance and Subsidies, 2002

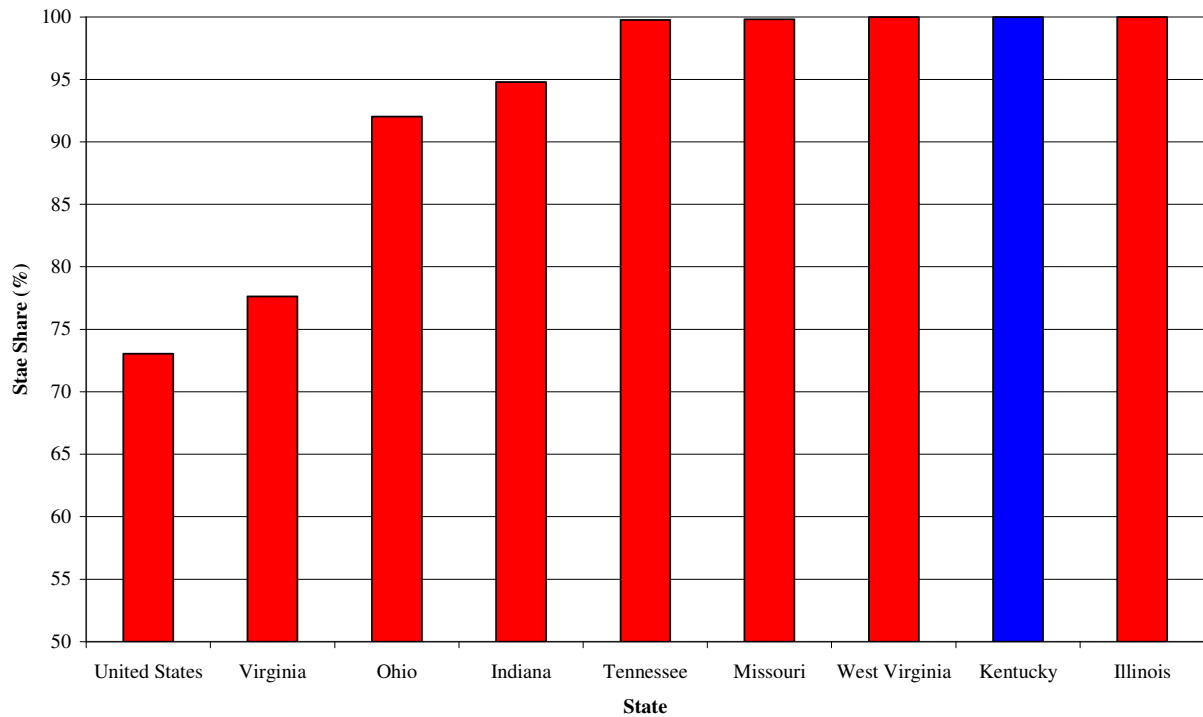


Figure 3.1g: Share of State Spending in Insurance Benefits and Payments, 2002

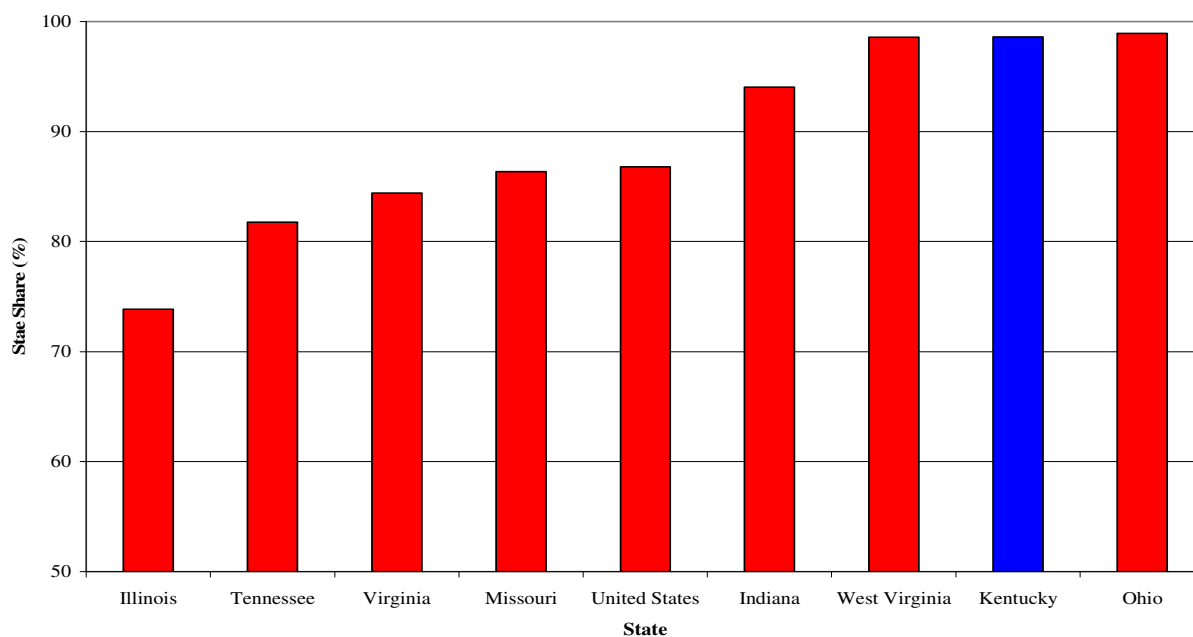


Figure 3.1h: Share of State Spending in Wages and Salaries, 2002

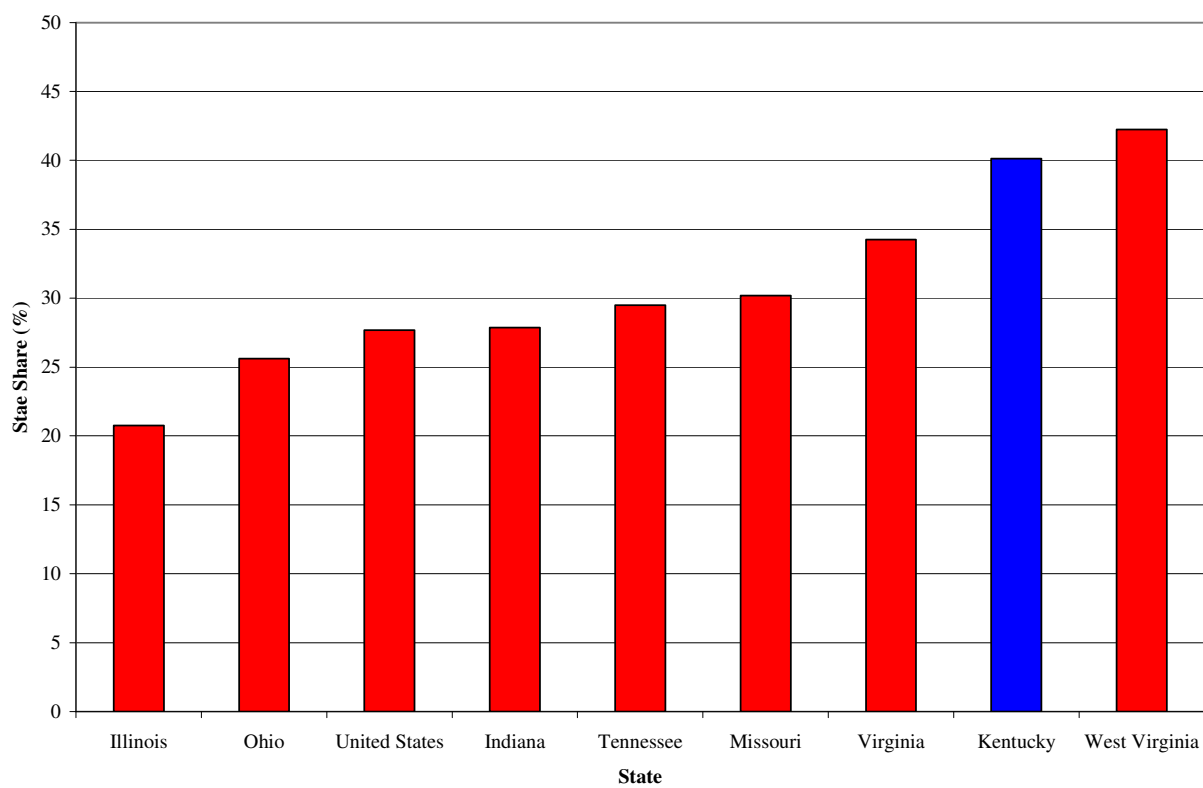


Figure 3.2a: State Total Expenditures per Capita, Selected Years

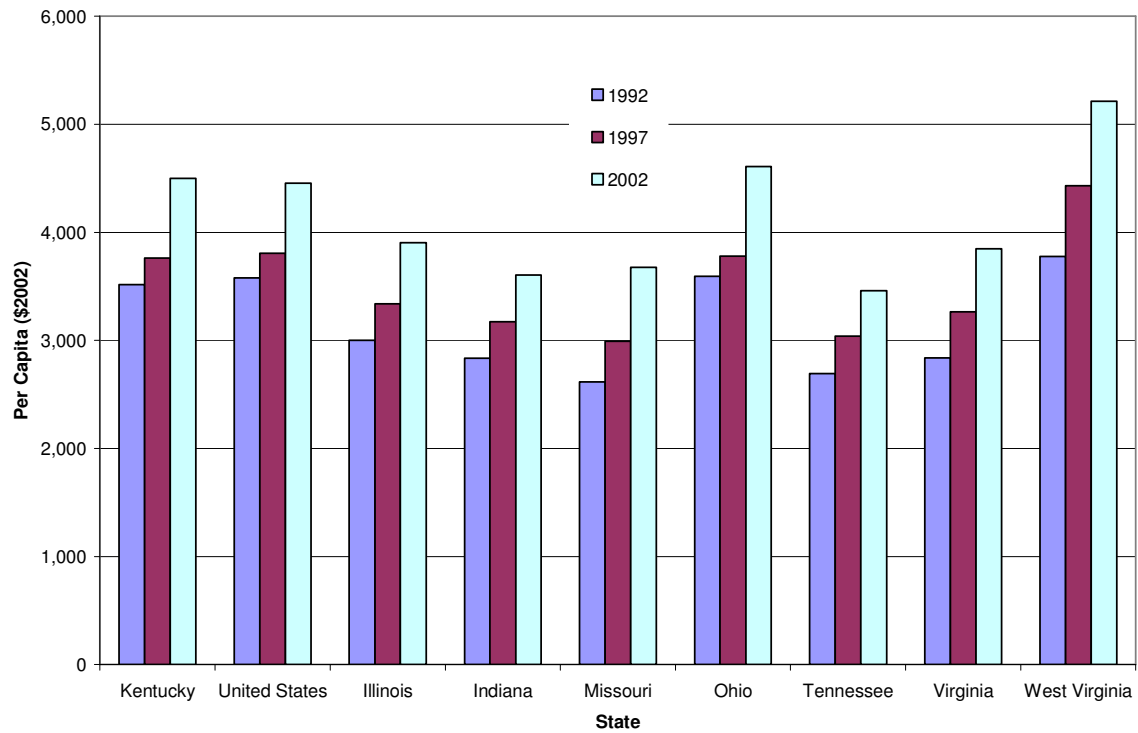


Figure 3.2b: State Intergovernmental Expenditures per Capita, Selected Years

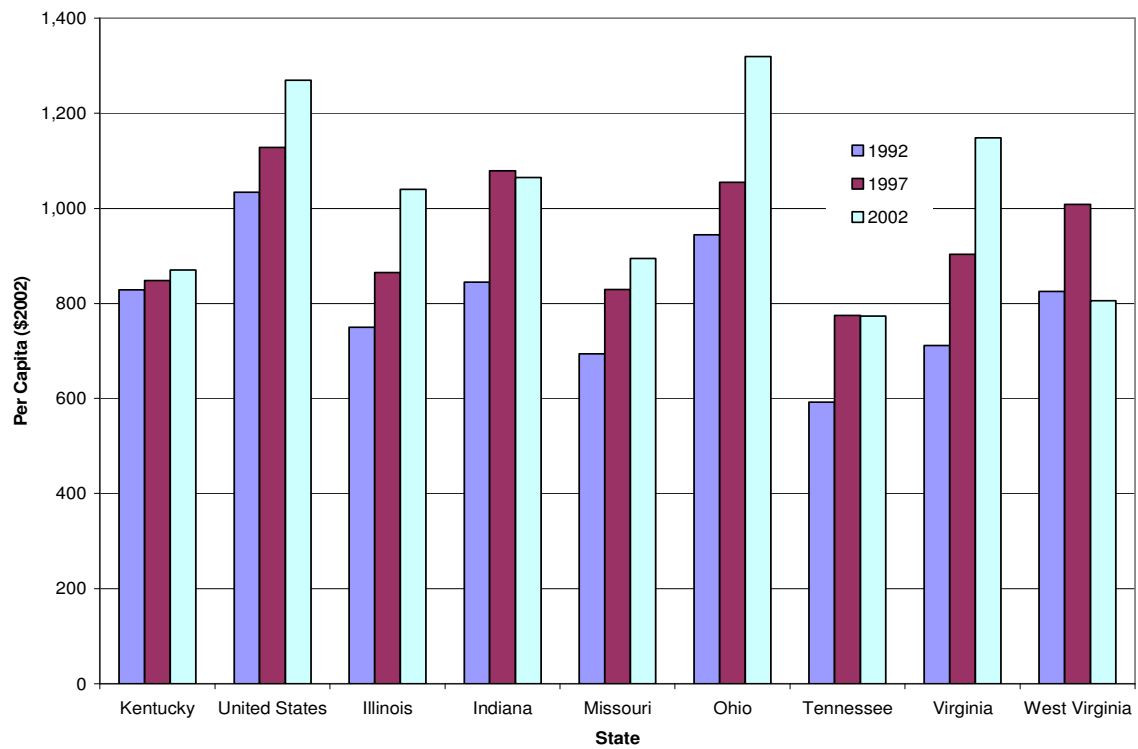


Figure 3.2c: State Direct Expenditures per Capita, Selected Years

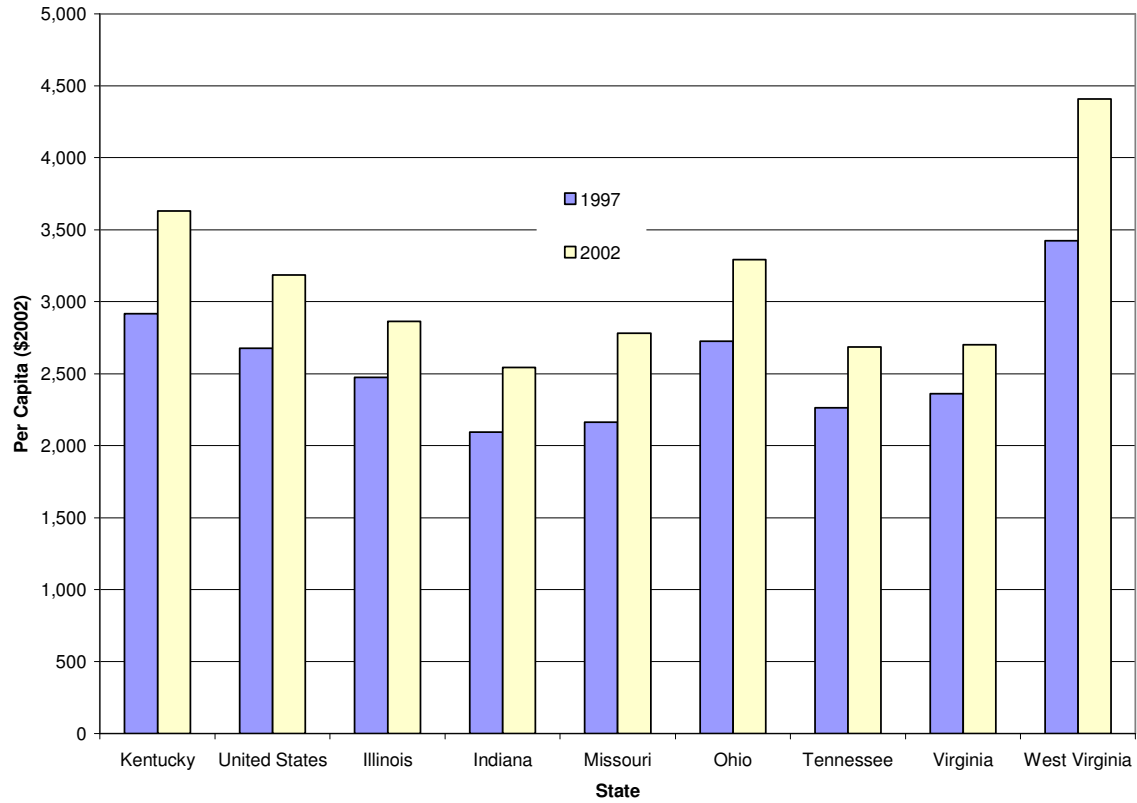


Figure 3.3: State and Local Total Expenditures per Capita, Selected Years

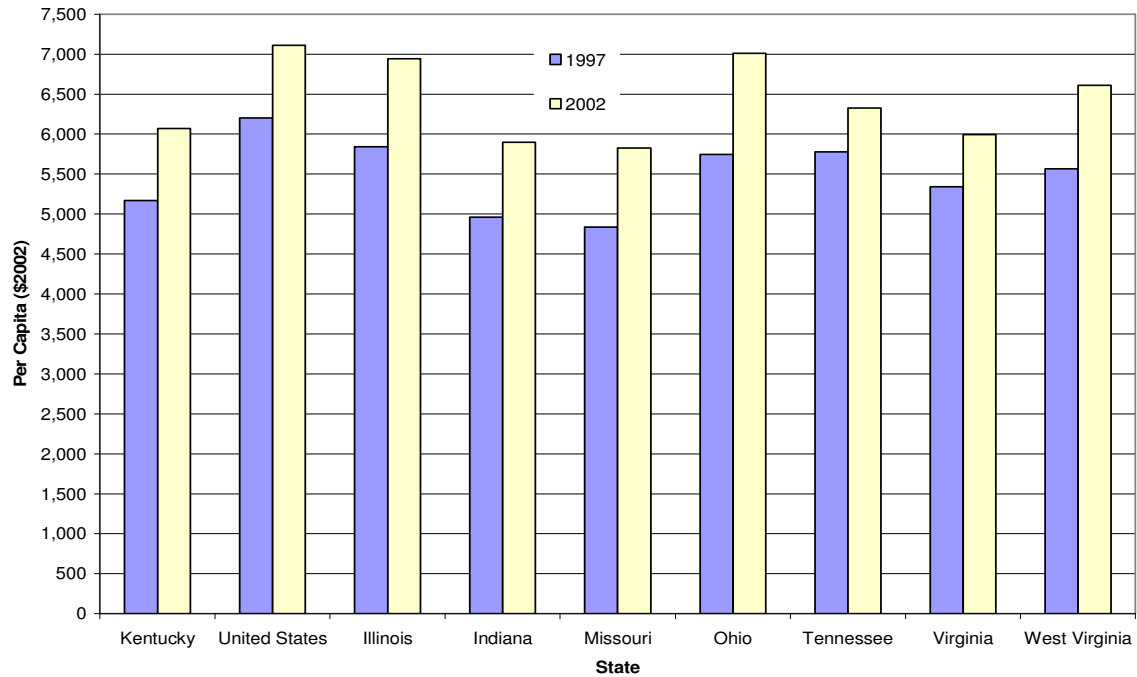


Figure 3.4a: Salaries, Average for All State Employees, Indexed and Adjusted for Inflation, Selected Years

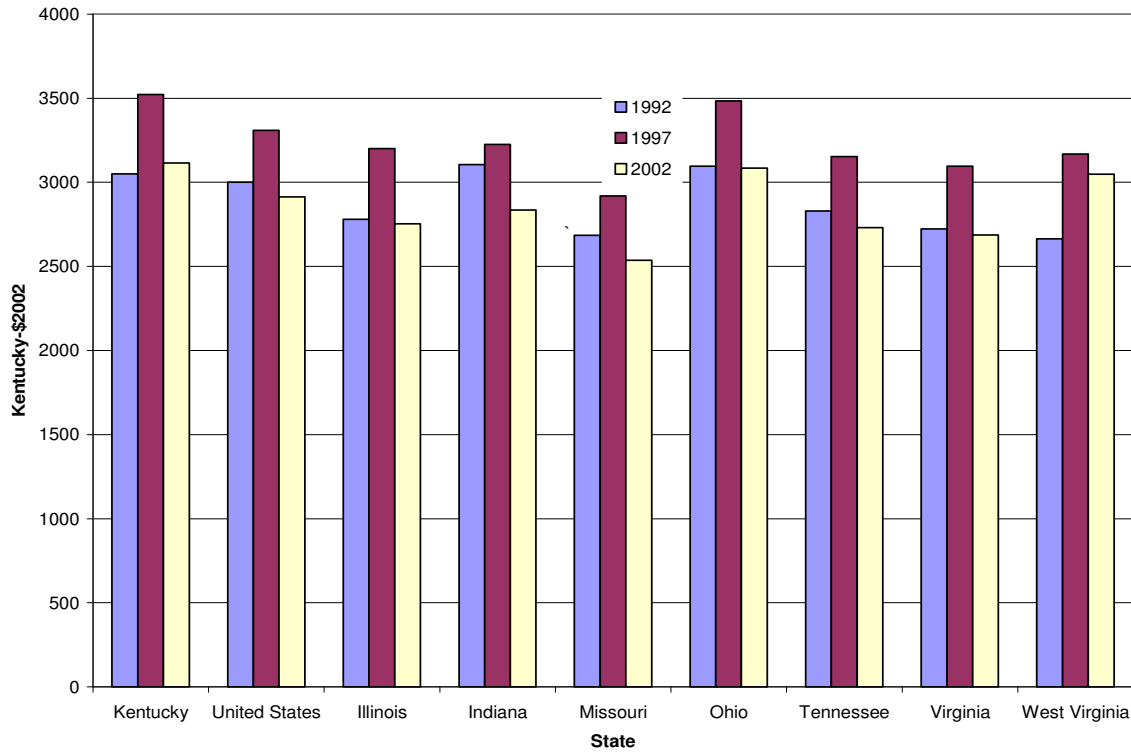


Figure 3.4b: Salaries, Average for All State Employees, Adjusted for Inflation (\$2002)

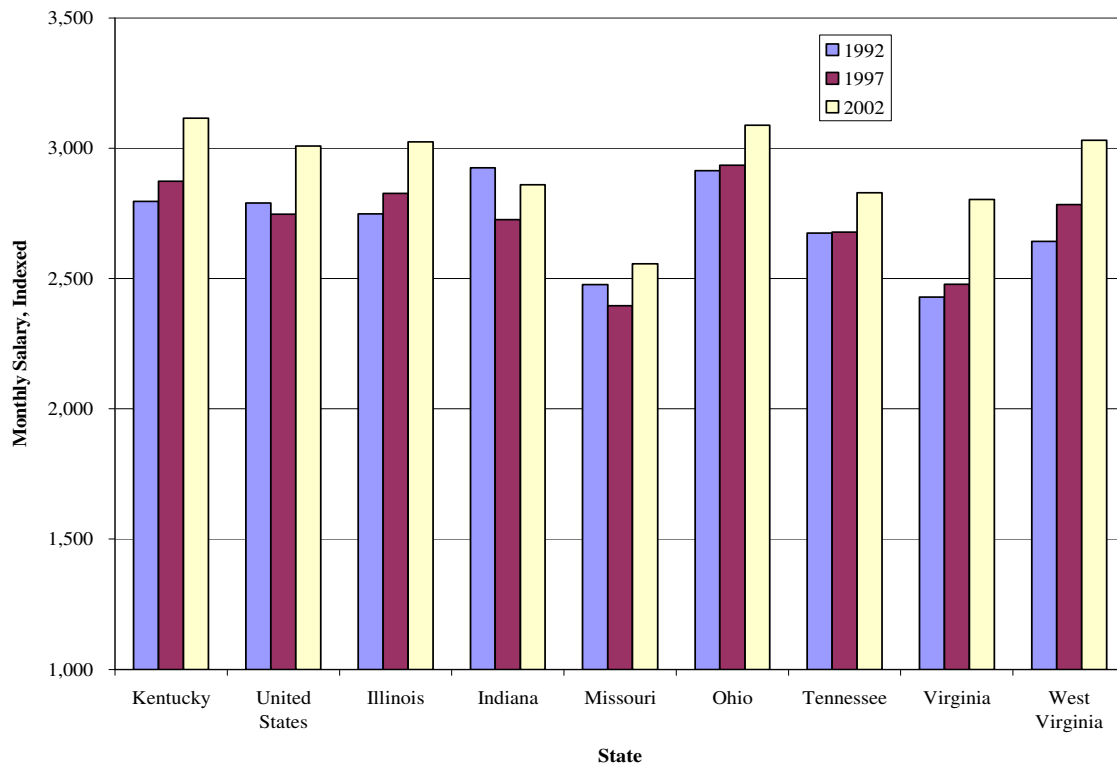


Figure 3.5: Salaries, Average for All State and Local Employees, Indexed and Adjusted for Inflation (\$2002)

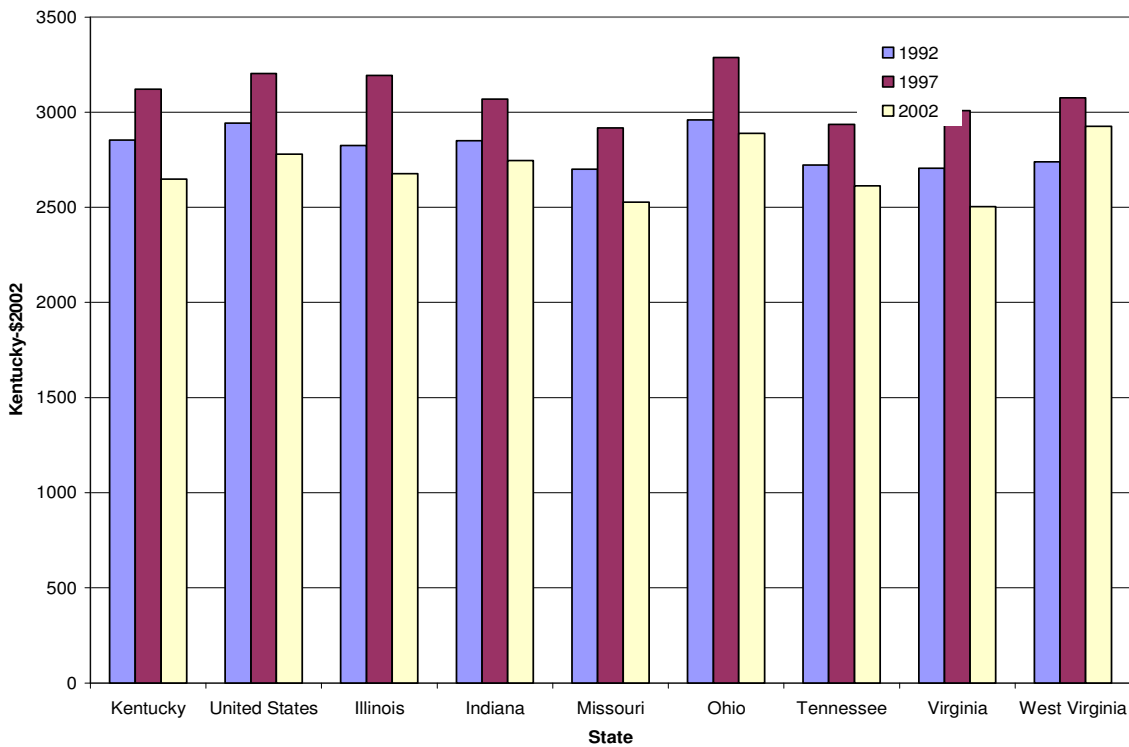


Figure 3.6: State Government Employment per 1,000 Residents, Selected Years

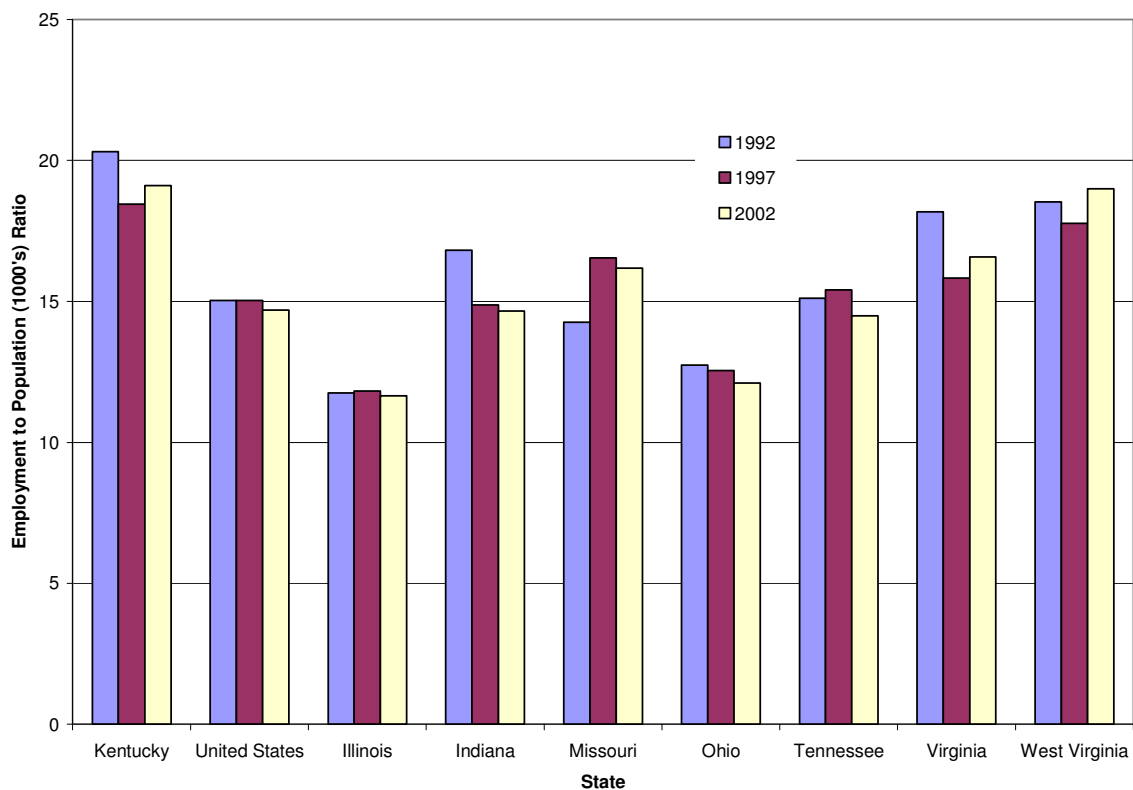
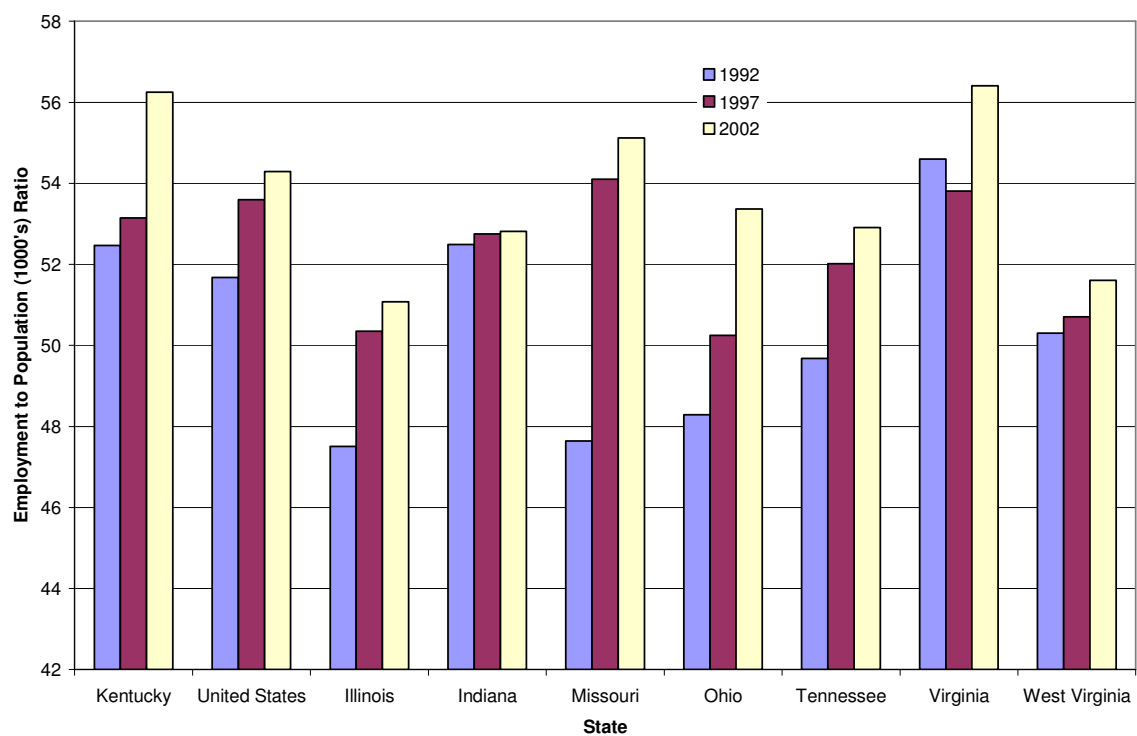


Figure 3.7: State and Local Government Employment per 1,000 Residents, Selected Years



Section 4. State and Local Government Expenditures and Employment by Government Function

This section provides several alternative comparisons between Kentucky and its neighbors on costs and resources used in different government functions. It is organized by government function, providing information on both expenditures and employment by each government function individually before considering another function.

As discussed in *Section 3*, this emphasis in observing different government functions individually is important as states differ greatly in the allocation of expenditures between state and local government. As a result, for some of the functions observed, our primary focus is on combined state and local expenditures rather than on state expenditures alone. To facilitate comparisons over time, we report inflation-adjusted (2002 dollars) amounts as in the preceding section. In addition to reporting per capita spending, we rank Kentucky relative to the other states and calculate the annualized change in real (inflation-adjusted) government spending on the function over our period of analysis.

Differences in per capita spending by government function or service are not, by themselves, indications of differences in efficiency or performance. These differences could be explained by differences in the costs of production of the services in the states, differences in utilization, and, possibly, differences in the quality or extent of the services provided. It is difficult to quantify, at least in a relatively simple and direct way, these differences for some services. However, for other services and functions, we can at least provide some indication of differences in the utilization of services, that is, some measure of output. Thus, for primary and secondary education, we report expenditures per student, and, for corrections, we report expenditures per inmate. For highways, we report expenditures per mile of highway. While these measures still do not account for differences in the quality or effectiveness of the government service or differences in costs of production, they are undoubtedly a better baseline than expenditures per capita.

We can also obtain insights into the production of government services by examining the employment and compensation within the government function. Analogous to expenditures, we determine employees per 1,000 residents for each function and, where possible, clients per employee. For example, for primary and secondary education, we calculate students per faculty member and, for corrections, inmates per employee.

4.A Central Administration

Expenditures on the central administration of state and local government are not related to the provision of any specific government function nor are they related to financial administration, such as expenditures by the revenue function. Instead, these expenditures are related to the general operations of the executive and legislative branches of government. For this reason, we make no attempt to measure an “output” or “quality of services” associated with central administration and instead we provide comparisons and trends based on per capita expenditures. When comparing central administration expenditures, particularly on a per capita basis, it is important to bear in mind that these services are likely to exhibit economies of scale. That is, while central administration costs can be expected to increase with the population of a state, they are not likely to increase at the same rate as the population.

Formally, the U.S. Census Bureau *Annual Survey of Government Finances and Employment*, the source of our data, defines Government Administration, which we refer to as central administration, as [g]overnment-wide executive, administrative, and staff service agencies other than financial, judicial, legal, and Federal or state legislative activities.”⁴

For example, costs associated with the legislative and executive branches of government are only weakly linked to population as the number of legislators, support staff and executive branch personnel are not likely to be significantly greater in larger states. *Table 4.A.1* gives the number of legislators and legislators per 1,000 residents for both the upper and lower houses of the legislature for both Kentucky and its neighbors for 2002. Note in *Table 4.A.1* that only West Virginia and Missouri had more lower house representatives per 1,000 residents than Kentucky and only West Virginia had more upper house representatives per 1,000 residents than Kentucky. Of course, West Virginia has the lowest population of these states, with Kentucky having the second lowest, and Missouri the third lowest. While the actual compensation to legislators may be a relatively small share of a state’s budget, these significant differences in the ratio of legislators to population suggest that some administrative costs are not strongly linked to population.

As shown in *Table 4.A.2*, in 2002 Kentucky ranked second among its neighbors in per capita expenditures on state central administration with spending equal to \$21 per capita. *Table 4.A.3* and *Figure 4.A.1* give the combined state and local central administration spending per capita. In 2002, Kentucky ranked fourth among the states with spending of \$69 per capita. Given the more centralized nature of Kentucky’s government structure, the higher ranking for state spending is no surprise. Central administrative costs per capita are a small share of state and local government expenditures and, therefore, have a relatively modest influence on total state or combined spending. It is perhaps more important, in the case of Kentucky, to consider the rate at which central administrative expenditures have been increasing. Per capita state spending in Kentucky increased during the ten year period from 1992 to 2002 by an inflation-adjusted rate of 5.4%, second only to the 10.9% rate of increase in West Virginia. Combined state and local spending per capita increased at a rate of 7.2% during this period, the highest rate among all the comparison states.

Tables 4.A.4 and *4.A.5* report state employment in central administration per 1,000 residents and combined state and local employment in central administration per 1,000 residents,

⁴ For the definition and examples from the manual for the *Annual Survey of Government Finances and Employment* see <http://www.census.gov/govs/www/classfunc29.html>.

respectively. *Figure 4.A.2* illustrates these same trends in state employment in central administration and *Figure 4.A.3* illustrates trends for combined state and local employment in central administration. In both categories, Kentucky has the highest ranking. In 2002, Kentucky's state employment per 1,000 residents of 0.35 was far above the average for the United States (0.19) and well above the rate of 0.22 for the second-highest ranked state (West Virginia). While Kentucky also ranks first in combined state and local employment, the differences between Kentucky and the rest of the state in this category (and the U.S. average) are not nearly so pronounced. Although the rate of increases in employment over this ten year period are not as great as the increases in (real) expenditures, Kentucky still had a 3.45% per annum increase in state-level central administration, second only to West Virginia. Increases in state and local employment, in contrast to state and local expenditures, were 2.29% per annum, surpassed by a number of states.

In *Table 4.A.6a* we provide inflation-adjusted average salaries for state central administration staff. As the table shows, in 2002, Kentucky had the highest central administration salaries of any of the comparison states with salaries over \$600 more per month than the United States average. During the ten year period from 1992 to 2002, inflation-adjusted salaries increased at a rate of 2.5% per annum in contrast to the national average rate of 0.51%, and Kentucky's ranking increased from fifth in 1992 to first in 2002. When indexed for differences in average private earnings among the states, the differences in salaries between Kentucky and the rest of the states (with the exception of West Virginia) are even more pronounced as shown in *Table 4.A.7* and *Figure 4.A.4*.

Table 4.A.1: State Lower and Upper House Legislators, Total and Per 1,000 Resident, 2002¹

	Lower House			Upper House		
	Number	Per 1,000 residents	Rank (per 1,000)	Number	Per 1,000 residents	Rank (per 1,000)
Kentucky	100	0.024	3	38	0.009	2
United States	5,411	0.019	4	1,971	0.007	4
Illinois	118	0.009	8	59	0.005	8
Indiana	100	0.016	6	50	0.008	3
Missouri	163	0.029	2	34	0.006	5
Ohio	99	0.009	9	33	0.003	9
Tennessee	99	0.017	5	33	0.006	6
Virginia	100	0.014	7	40	0.005	7
West Virginia	100	0.055	1	34	0.019	1

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.A.2: State Expenditures on Central Administration, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	13	12	21	3	3	2	5.4
United States	13	13	14	2	2	3	0.6
Illinois	8	8	9	4	6	6	1.6
Indiana	7	8	10	7	7	4	4.1
Missouri	7	10	8	6	4	8	1.0
Ohio	7	6	8	8	8	7	1.6
Tennessee	8	9	10	5	5	5	2.2
Virginia	7	6	7	9	9	9	0.3
West Virginia	16	29	44	1	1	1	10.6

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.A.3: State and Local Expenditures on Central Administration, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	35	49	69	8	5	4	7.2
United States	51	54	63	3	3	5	2.2
Illinois	58	49	90	2	6	1	4.5
Indiana	66	68	85	1	1	2	2.5
Missouri	36	52	56	6	4	6	4.5
Ohio	35	39	51	7	9	7	4.0
Tennessee	30	41	43	9	8	9	3.6
Virginia	41	47	51	5	7	8	2.3
West Virginia	42	65	80	4	2	3	6.6

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.A.4: State Employment in Central Administration per 1000 residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.25	0.29	0.35	1	1	1	3.45
United States	0.18	0.21	0.19	3	3	3	0.54
Illinois	0.18	0.19	0.18	2	5	5	-0.22
Indiana	0.08	0.06	0.09	9	9	8	0.90
Missouri	0.15	0.20	0.19	5	4	4	2.17
Ohio	0.09	0.09	0.07	8	8	9	-2.03
Tennessee	0.13	0.13	0.14	6	6	6	0.65
Virginia	0.10	0.11	0.11	7	7	7	0.95
West Virginia	0.15	0.24	0.22	4	2	2	3.98

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.A.5: State and Local Employment in Central Administration per 1000 residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.81	0.90	1.01	4	4	1	2.29
United States	0.86	0.94	0.94	3	2	4	0.92
Illinois	0.95	0.99	0.93	1	1	5	-0.27
Indiana	0.88	0.94	1.00	2	3	2	1.23
Missouri	0.61	0.83	0.84	8	7	7	3.23
Ohio	0.69	0.86	0.94	6	5	3	3.15
Tennessee	0.60	0.74	0.81	9	9	9	3.14
Virginia	0.76	0.84	0.83	5	6	8	0.93
West Virginia	0.66	0.81	0.88	7	8	6	2.85

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.A.6: State Salaries for Central Administration, Adjusted for Inflation, Selected Years¹

	Monthly Salary			Rank			Annual Percentage Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3,310	3,370	4,238	5	2	1	2.50
United States	3,446	3,222	3,625	3	4	6	0.51
Illinois	3,514	3,454	4,052	2	1	2	1.43
Indiana	4,125	2,708	2,675	1	8	9	-4.24
Missouri	2,742	2,530	2,813	7	9	8	0.26
Ohio	3,016	3,048	3,717	6	6	4	2.11
Tennessee	2,451	2,827	3,124	9	7	7	2.46
Virginia	3,335	3,255	3,669	4	3	5	0.96
West Virginia	2,694	3,191	3,843	8	5	3	3.61

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.A.7: State Salaries for Central Administration, Indexed and Adjusted for Inflation, Selected Years¹

	Monthly Salary			Rank			Annual Percentage Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3,310	3,370	4,238	2	2	1	2.50
United States	2,950	2,759	3,103	4	6	6	0.51
Illinois	2,966	2,915	3,420	3	3	3	1.43
Indiana	3,930	2,581	2,549	1	8	9	-4.24
Missouri	2,560	2,362	2,626	8	9	8	0.26
Ohio	2,725	2,754	3,358	7	7	4	2.11
Tennessee	2,421	2,792	3,086	9	4	7	2.46
Virginia	2,845	2,777	3,130	6	5	5	0.96
West Virginia	2,875	3,405	4,100	5	1	2	3.61

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Figure 4.A.1: State and Local Expenditures on Central Administration per Capita, Selected Years¹

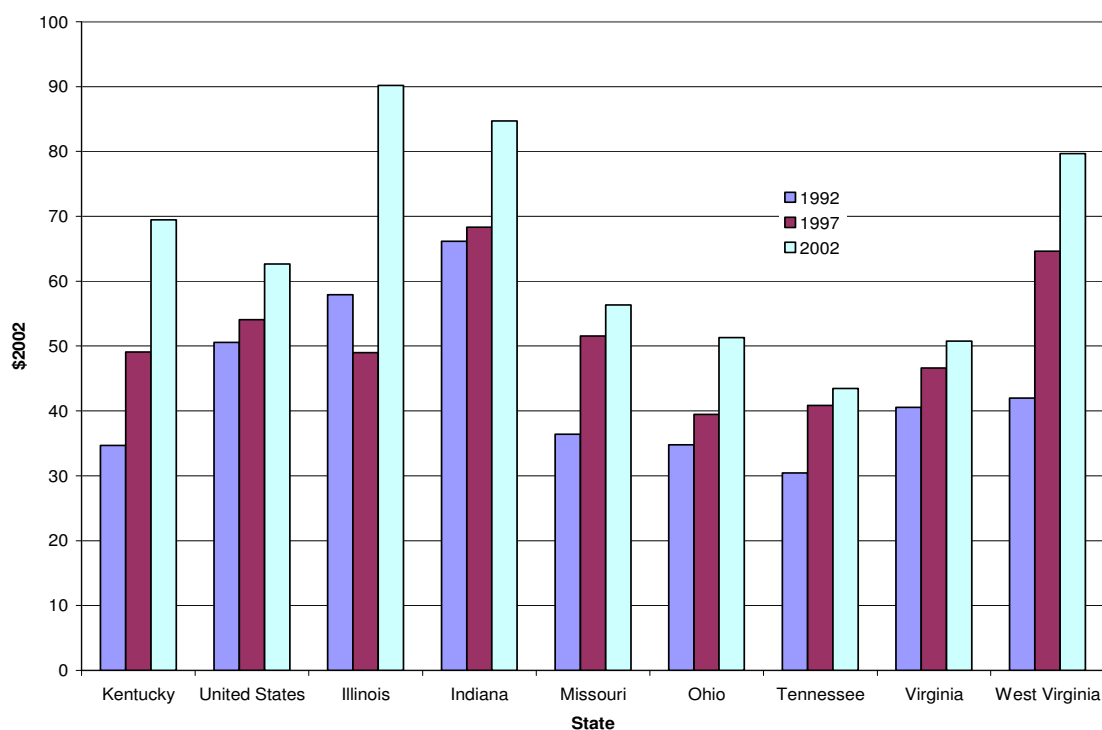


Figure 4.A.2: State Employment in Central Administration per 1,000 Residents, Selected Years¹

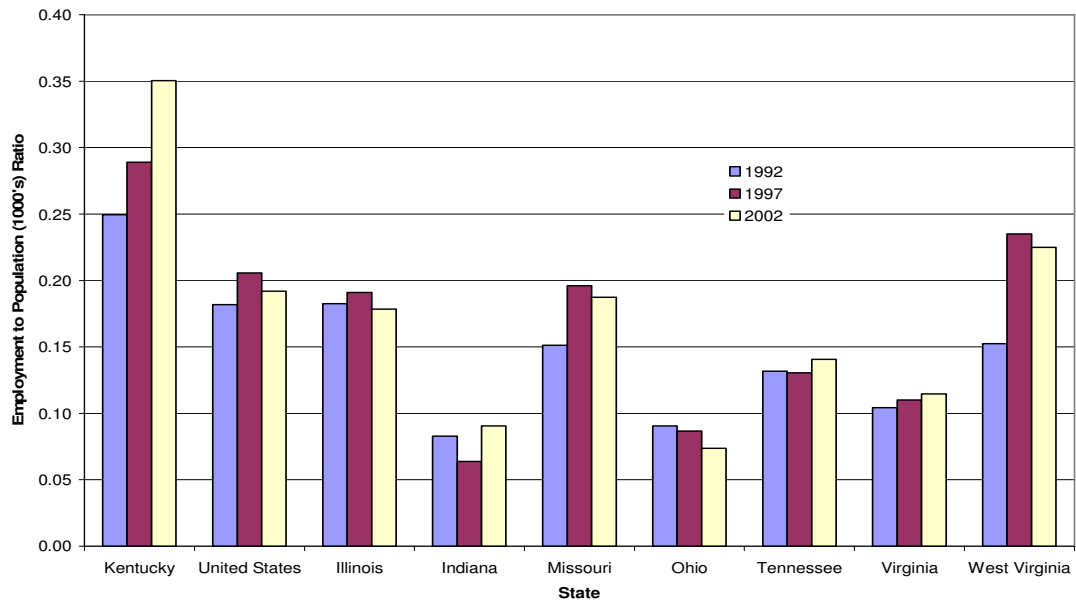


Figure 4.A.3: State and Local Employment in Central Administration per 1,000 Residents, Selected Years¹

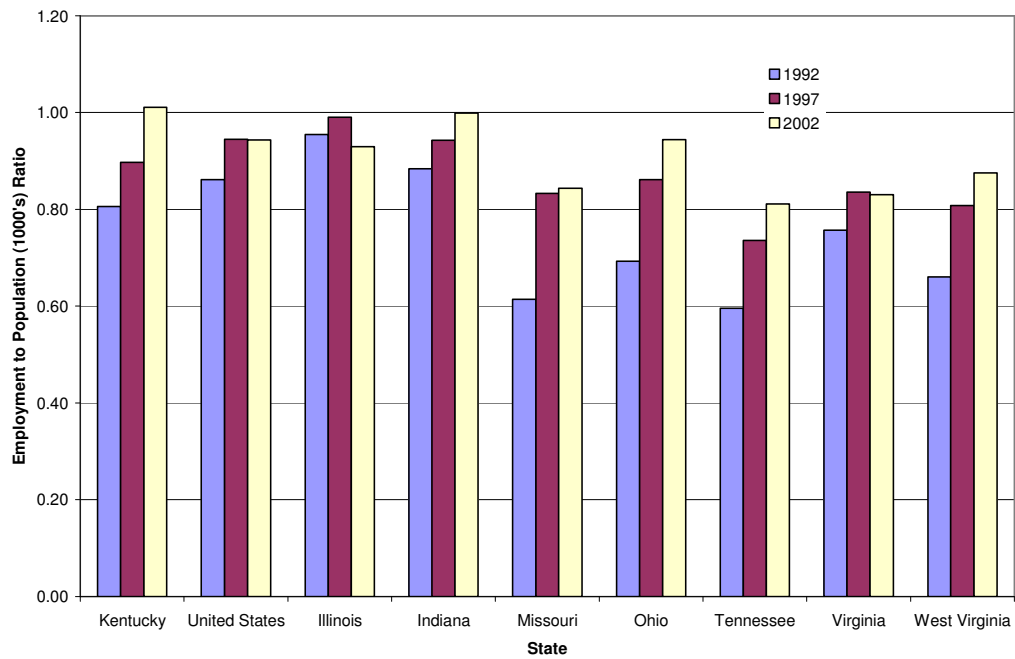
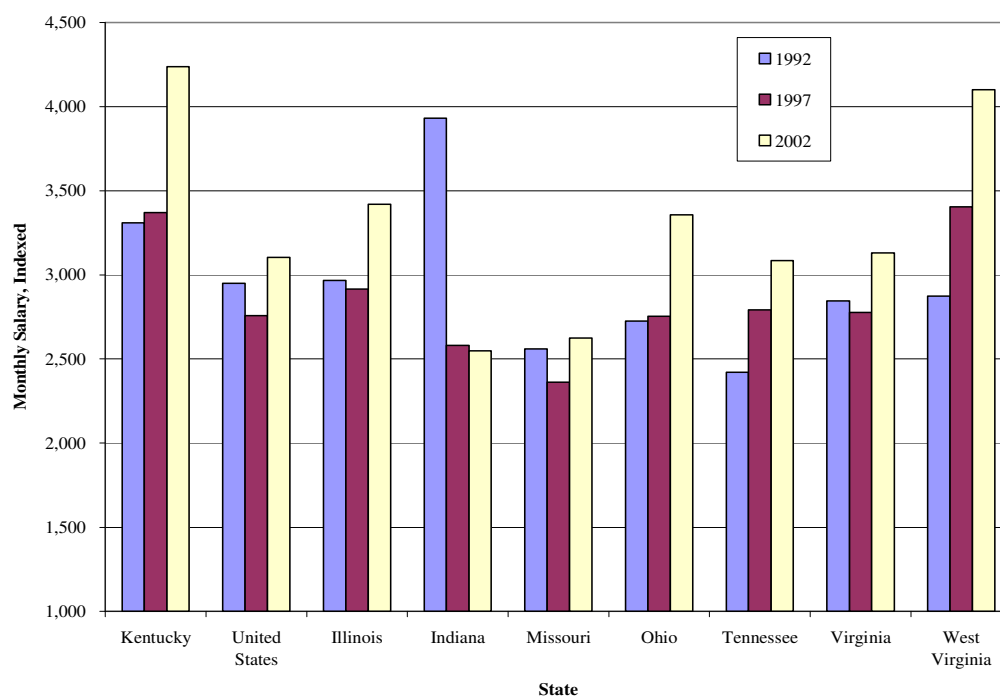


Figure 4.A.4: Salaries, Average for State Central Administration, Indexed and Adjusted for Inflation (\$2002)¹



4.B Financial Administration

Financial administration includes government services provided by the finance and administrative agencies of government and revenue-collection and auditing/accounting agencies. As with central administration, output is difficult to measure for these services. While it would seem reasonable to expect that states with smaller populations might spend more per capita, based on an expectation of economies of scale in these services, examination of costs for Kentucky and its neighbors does not seem to suggest that this is the case.

The definition of *Financial Administration* guiding the collection of data for the U.S. Census *Annual Survey of Government Finances and Employment* is “[o]fficials and central staff agencies concerned with tax assessment and collection, accounting, auditing, budgeting, purchasing, custody of funds, and other finance activities.”⁵

While West Virginia, the state with the smallest population, does have the highest spending per capita on state financial administration throughout this period (*Table 4.B.1*), Kentucky is ranked relatively low for state expenditures on financial administration per capita. In fact, in 2002, its state financial administration spending per capita (\$60) was below the national average (\$66) and less than half of the per capita cost in West Virginia (\$137). The rate of growth in state expenditures for financial administration in Kentucky, at a rate of 2.1% real increase per annum, is also relatively modest.

Table 4.B.2 and *Figure 4.B.1* show that Kentucky spends relatively less in state and local expenditures on financial administration, ranking at the bottom of the comparison states and having a real per annum increase of only 0.9%.

In contrast to expenditures, Kentucky, as shown in *Table 4.B.3* and *Figure 4.B.2*, has a very high rate of employment in state financial administration, second only to West Virginia. In 2002, Kentucky had a rate of 0.76 employees per 1,000 residents, compared to the U.S. average of 0.59 employees. However, during the ten year period from 1992 to 2002, employment per capita in state financial administration actually decreased in Kentucky. Combined state and local employment for Kentucky, however, ranks low, with a rate of state and local financial employment of 1.17 per 1,000 residents which is similar to most of its surrounding states. This also may be a reflection of the more centralized nature of government in Kentucky. While combined employment (per 1,000 residents) has been increasing in Kentucky, it has been doing so at a relatively modest rate.

Finally, we report the average monthly salaries for state financial administration. Salaries adjusted for inflation, but not indexed to account for differences in state earnings, are reported in *Table 4.B.5*. Salaries that are indexed and adjusted for inflation are reported in *Table 4.B.6* and *Figure 4.B.3*. Even after indexing for differences in private earnings among the states, Kentucky’s salaries are consistent with those found in the other states and the U.S. average. The rate of increase in inflation-adjusted salaries, 2.49%, is essentially the same rate as was found for central administration.

⁵ The online version of the *Government Finance and Employment* manual has the definition of financial administration and examples at <http://www.census.gov/govs/www/classfunc23.html>.

Table 4.B.1: State Expenditures on Financial Administration, Per Capita, Selected Years¹

	Per Capita, \$2002			Rank			Annual Percentage Change
	1992	1997	2002	1992	1997	2002	
Kentucky	49	54	60	5	6	6	2.1
United States	49	58	66	4	5	3	3.0
Illinois	46	64	64	6	4	5	3.4
Indiana	41	39	45	7	7	7	0.7
Missouri	30	38	43	8	8	8	3.5
Ohio	59	72	131	2	3	2	8.2
Tennessee	25	25	27	9	9	9	0.6
Virginia	50	72	65	3	2	4	2.6
West Virginia	65	95	137	1	1	1	7.8

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.B.2: State and Local Expenditures on Financial Administration, per Capita, Selected Years¹

	Per Capita, \$2002			Rank			Annual Percentage Change
	1992	1997	2002	1992	1997	2002	
Kentucky	73	70	80	7	8	7	0.9
United States	92	104	114	3	5	5	2.1
Illinois	81	122	115	5	4	4	3.6
Indiana	74	79	100	6	6	6	3.0
Missouri	65	71	76	8	7	8	1.6
Ohio	102	124	191	1	2	1	6.5
Tennessee	53	64	67	9	9	9	2.5
Virginia	98	124	119	2	1	3	1.9
West Virginia	92	123	174	4	3	2	6.6

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.B.3: State Employment in Financial Administration per 1000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.81	0.85	0.76	1	1	2	-0.61
United States	0.58	0.63	0.59	4	5	5	0.14
Illinois	0.57	0.53	0.48	5	7	6	-1.69
Indiana	0.77	0.64	0.45	2	4	9	-5.30
Missouri	0.53	0.52	0.46	7	8	7	-1.37
Ohio	0.44	0.77	0.73	9	2	3	5.17
Tennessee	0.49	0.47	0.46	8	9	8	-0.52
Virginia	0.65	0.61	0.62	3	6	4	-0.46
West Virginia	0.55	0.66	1.27	6	3	1	8.76

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.B.4: State and Local Employment in Financial Administration per 1000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.14	1.28	1.17	6	6	6	0.22
United States	1.25	1.36	1.33	4	5	4	0.60
Illinois	1.13	1.14	1.10	8	8	9	-0.27
Indiana	1.40	1.50	1.17	2	2	7	-1.83
Missouri	1.15	1.21	1.18	5	7	5	0.33
Ohio	0.99	1.44	1.45	9	4	3	3.87
Tennessee	1.13	1.14	1.15	7	9	8	0.21
Virginia	1.48	1.52	1.53	1	1	2	0.37
West Virginia	1.33	1.48	2.13	3	3	1	4.85

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.B.5: Average Monthly Salaries for Financial Administration, Adjusted for Inflation¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2314	2529	2960	6	6	6	2.49
United States	3056	3114	3447	2	2	2	1.21
Illinois	2928	3024	3334	3	3	3	1.31
Indiana	2027	2258	2860	9	7	7	3.50
Missouri	2194	2022	2656	7	9	8	1.93
Ohio	3406	3631	4167	1	1	1	2.04
Tennessee	2771	2842	3227	5	5	5	1.54
Virginia	2840	2904	3289	4	4	4	1.48
West Virginia	2133	2028	2409	8	8	9	1.23

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.B.6: Average Monthly Salaries for Financial Administration, Indexed and Adjusted for Inflation¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2,314	2,529	2,960	6	5	3	2.49
United States	2,616	2,666	2,951	3	3	4	1.21
Illinois	2,471	2,552	2,814	4	4	5	1.31
Indiana	1,932	2,152	2,725	9	8	7	3.50
Missouri	2,048	1,888	2,480	8	9	9	1.93
Ohio	3,077	3,281	3,764	1	1	1	2.04
Tennessee	2,736	2,807	3,187	2	2	2	1.54
Virginia	2,422	2,477	2,806	5	6	6	1.48
West Virginia	2,275	2,164	2,570	7	7	8	1.23

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Figure 4.B.1 : State and Local Expenditures on Fiscal Administration per Capita, Selected Years¹

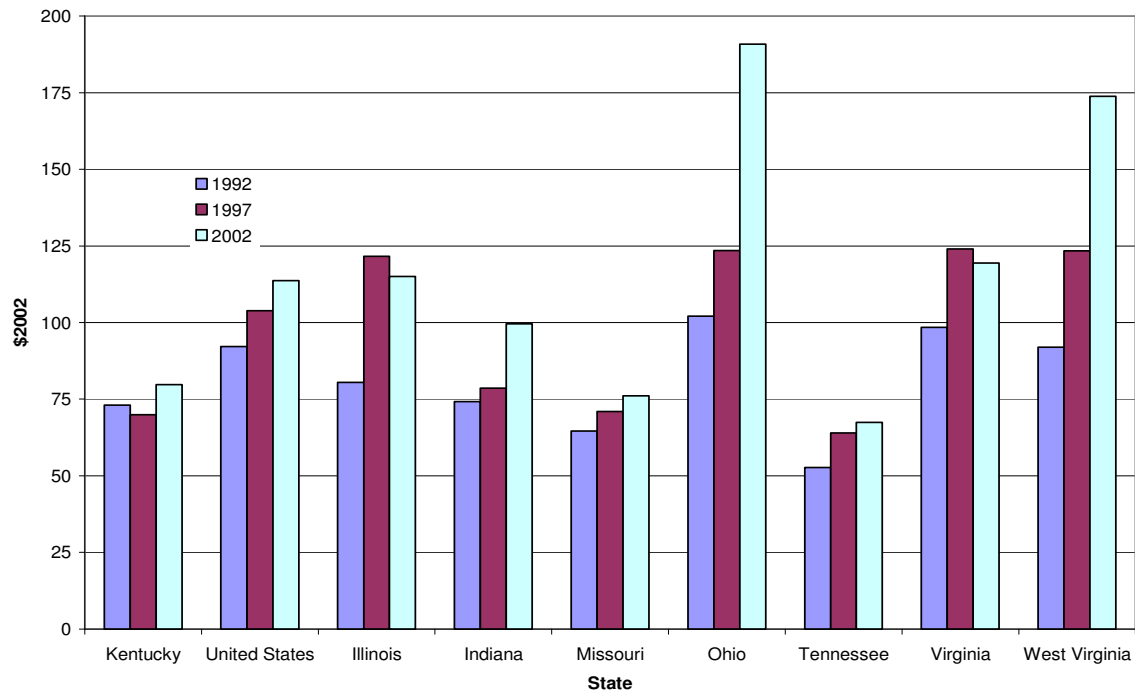


Figure 4.A.2: State and Local Employment in Financial Administration per 1,000 Residents, Selected Years¹

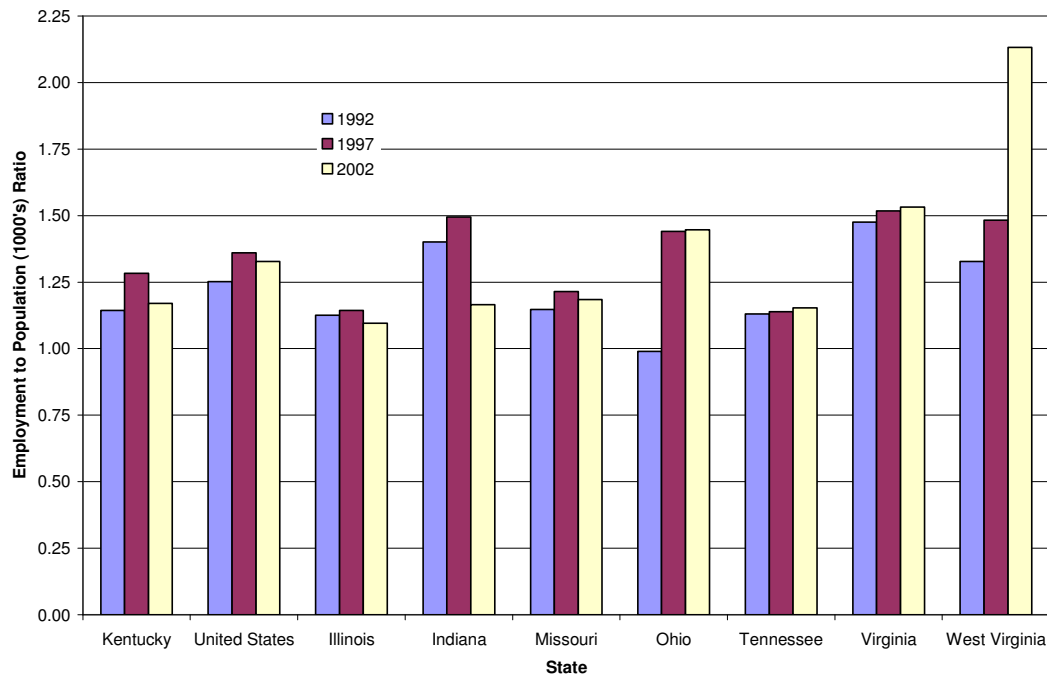
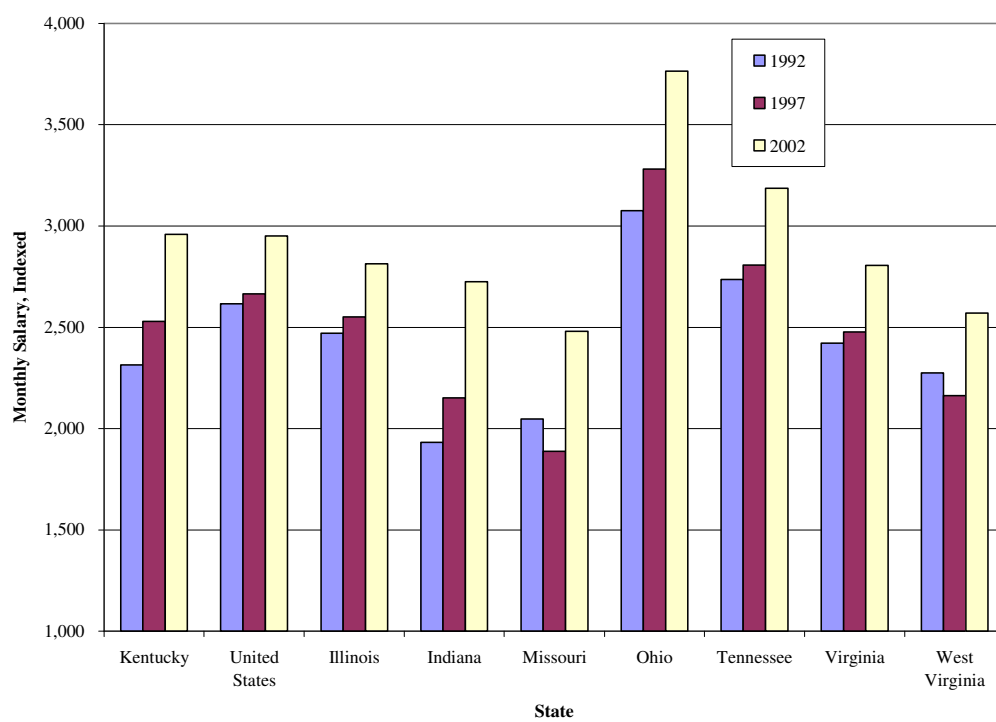


Figure 4.B.3 Salaries, Average for Financial Administration, Indexed and Adjusted for Inflation¹



4.C Corrections

As indicated in *Table 3.1*, the distribution of expenditures on corrections between state and local governments varied significantly between Kentucky and each of its neighbors. *Table 4.C.1* gives state expenditures on corrections per capita for Kentucky and its neighbors. Kentucky has a relatively low per capita cost of \$101 in 2002 compared to a U.S. average of \$127 per capita. The annual real rate of increase in correction costs is 4.9% per capita, in the range of other states and significantly below the rate in some states such as Missouri and West Virginia.

Measures of correctional spending and employment come from the Census Bureau Annual Survey of Governments. For this category, we have focus strictly on institutional spending. From the *Government Finance and Employment Manual*, correctional institutions are defined to be

Residential institutions or facilities for the confinement, correction, and rehabilitation of convicted adults or juveniles adjudicated delinquent or in need of supervision, and for the detention of adults and juveniles charged with a crime and awaiting trial.⁶

Since the cost of corrections is likely to be heavily influenced by the number of inmates in the state system, we also report spending on corrections per inmate, an obvious, if perhaps somewhat simplistic, output measure. Understanding the differences between the states in per capita costs for corrections requires some understanding of the differences in incarceration rates. *Table 4.C.2* gives the incarceration rate (per 1,000 residents) for Kentucky and its neighbors. Kentucky's rate of 3.71 inmates per 1,000 was in the middle of the states as was its annual rate of change in the incarceration rate of 3.3%.

Table 4.C.3 and *Figure 4.C.2* give state corrections expenditures per inmate. Kentucky had a relatively low expenditure of \$27,233 per inmate in 2002 with only Missouri (\$20,706) and Tennessee (\$19,402) having lower costs per inmate.

Employment in state corrections, measured by employees per 100 inmates, is reported in *Table 4.C.4*. Again, Kentucky is ranked low in employment with only 24.67 employees per 100 inmates compared to 50.02 in Virginia. Perhaps more dramatic have been the decreases in employment, with Kentucky experiencing a decline of 6.92% in employees per 100 inmates during the period 1992 to 2002. Finally, *Table 4.C.5* reports inflation-adjusted average salaries for state corrections employees and *Table 4.C.6* reports salaries that are both indexed and inflation-adjusted. In non-indexed salaries Kentucky is near the bottom. When indexed, Kentucky ranks in the middle. Salaries, after adjusting for inflation, have grown at a model rate of 0.55%.

⁶ The online version of the manual has the definition of correctional institutions and examples at <http://www.census.gov/govs/www/classfunc04.html>.

Table 4.C.1: State Expenditures on Corrections, per Capita, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	63	71	101	7	8	6	4.9
United States	94	115	127	1	2	2	3.1
Illinois	66	86	103	6	4	5	4.5
Indiana	69	79	100	5	6	7	3.7
Missouri	50	77	107	8	7	4	7.8
Ohio	77	117	114	4	1	3	4.0
Tennessee	82	83	67	3	5	9	-2.0
Virginia	84	105	132	2	3	1	4.6
West Virginia	26	59	94	9	9	8	13.7

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.C.2: State Incarceration Rate per 1,000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2.68	3.54	3.71	4	5	4	3.3
United States	.	4.16	.	.	4	.	.
Illinois	2.61	3.34	3.43	5	6	7	2.8
Indiana	2.44	2.99	3.44	6	8	6	3.5
Missouri	3.09	4.25	5.17	3	1	1	5.3
Ohio	3.36	4.22	3.93	1	2	3	1.6
Tennessee	2.32	3.04	3.47	7	7	5	4.1
Virginia	3.22	4.20	4.17	2	3	2	2.6
West Virginia	0.88	1.62	2.46	8	9	8	10.9

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.C.3: State Expenditures on Corrections, per Inmate, Selected Years¹

	Per Inmate, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	23,355	20,032	27,233	6	8	6	2
United States		27,774	.	.	2	.	.
Illinois	25,378	25,773	30,133	5	6	3	2
Indiana	28,322	26,306	29,014	3	5	4	0
Missouri	16,292	18,022	20,706	8	9	7	2
Ohio	22,766	27,665	28,904	7	3	5	2
Tennessee	35,380	27,271	19,402	1	4	8	(6)
Virginia	26,195	24,908	31,557	4	7	2	2
West Virginia	29,880	36,332	38,374	2	1	1	3

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.C.4: State Employment in Corrections, per 100 Inmates, Selected Years¹

	Per 100 Inmates			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	50.52	37.08	24.67	2	5	7	-6.92
United States	.	39.53	.	.	4	.	.
Illinois	38.86	36.07	38.93	7	6	4	0.02
Indiana	46.78	35.56	39.90	4	7	2	-1.58
Missouri	39.14	39.58	39.74	6	3	3	0.15
Ohio	29.12	34.59	38.30	8	8	5	2.78
Tennessee	54.96	45.20	33.81	1	2	6	-4.74
Virginia	43.07	46.95	50.02	5	1	1	1.51
West Virginia	49.50	34.12	10.75	3	9	8	-14.16

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.C.5: Average Monthly Salary for Corrections, Adjusted for Inflation¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2314	2529	2960	6	6	6	0.55
United States	3056	3114	3447	2	2	2	0.33
Illinois	2928	3024	3334	3	3	3	0.99
Indiana	2027	2258	2860	9	7	7	2.62
Missouri	2194	2022	2656	7	9	8	-0.06
Ohio	3406	3631	4167	1	1	1	0.61
Tennessee	2771	2842	3227	5	5	5	-0.27
Virginia	2840	2904	3289	4	4	4	0.80
West Virginia	2133	2028	2409	8	8	9	0.09

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.C.6: Average Monthly Salary for Corrections, Indexed and Adjusted for Inflation¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2,419	2,410	2,555	4	5	5	0.55
United States	2,686	2,606	2,775	3	3	4	0.33
Illinois	2,759	2,862	3,045	2	2	2	0.99
Indiana	2,263	2,436	2,931	6	4	3	2.62
Missouri	2,008	1,978	1,997	8	9	9	-0.06
Ohio	3,016	2,978	3,206	1	1	1	0.61
Tennessee	2,361	2,292	2,297	5	6	6	-0.27
Virginia	2,059	2,121	2,230	7	8	7	0.80
West Virginia	2,006	2,139	2,025	9	7	8	0.09

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Figure 4.C.1: Incarceration Rates in State Prisons, Various Years¹

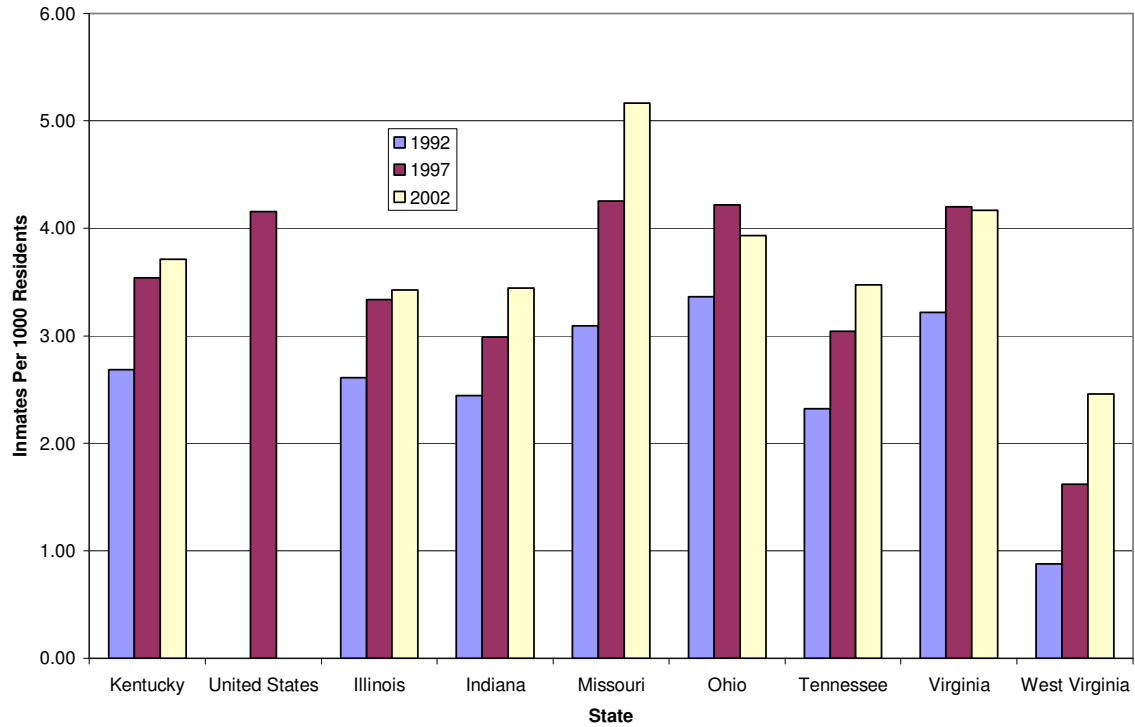
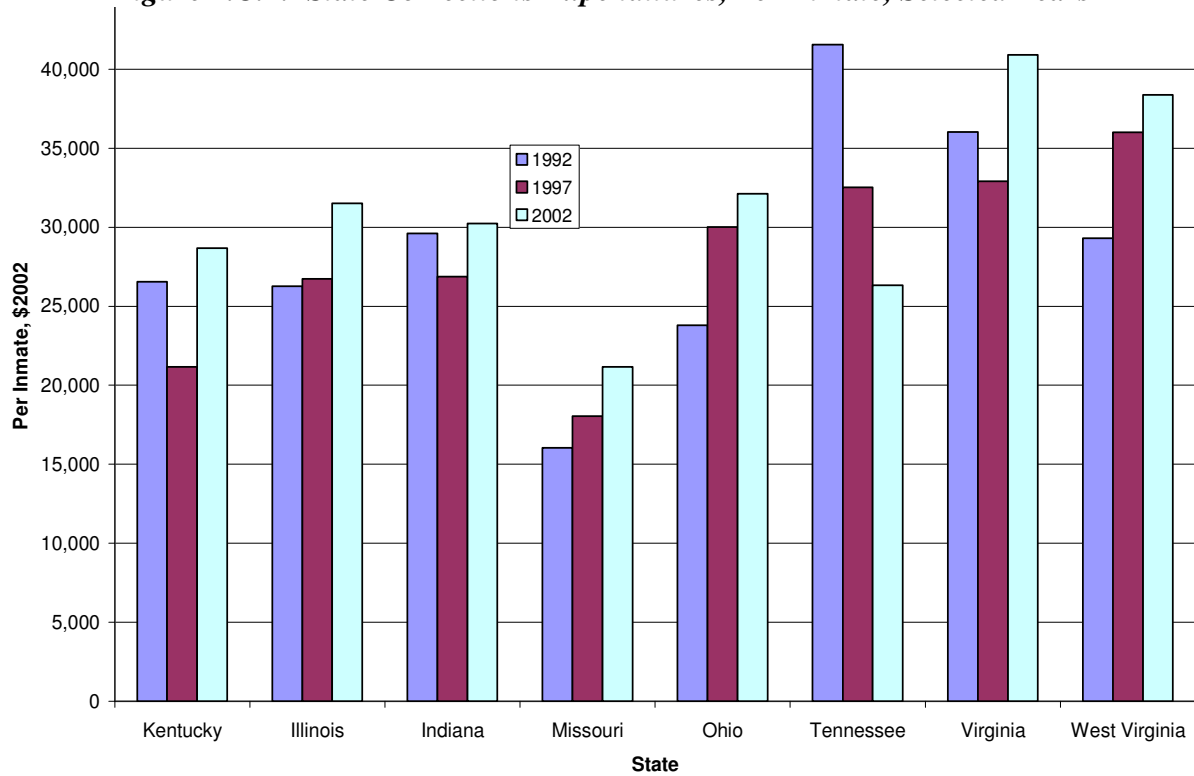


Figure 4.C.2: State Corrections Expenditures, Per Inmate, Selected Years¹



4.D. Primary and Secondary Education

While the provision of primary and secondary education is the responsibility of local governments, specifically school districts, it is heavily financed by state funds. In Kentucky in 2001, 67% of primary and secondary education funding came from state sources, far above the typical level for its neighboring states with the exception of West Virginia. The state government is also involved in primary and secondary education through its regulatory role, imposing requirements for training, curricula, and facilities.

While we use a rather standard measure of output for education, number of students, this measure, as with other measures of output we have used, does not adjust for the quality of services. In particular, higher expenditures per student may indicate a better quality education, a less efficient provision of services or, possibly, both. Here, we make no attempt to measure the quality of services provided to students or to provide output measures such as results on standardized test scores. While these issues are certainly important in understanding the efficacy of educational services, they are beyond the scope of this study.

Table 4.D.1 provides a comparison of primary and secondary education costs per student (average daily attendance) for Kentucky and its neighbors for 1992, 1997, and 2002. Current expenditures, including all expenditures except capital expenditures, are reported. Administration and instructional expenditures are reported separately. As the table shows, educational costs per student are quite low in Kentucky when compared to its neighboring states with Kentucky ranking seventh in both current expenditures and instructional expenditures per student in 2002. Administrative spending per student is relatively higher, in fact the highest among the states in 1997, although the rank decreased to fifth in 2002. *Figure 4.D.1* illustrates current expenditures per student.

Table 4.D.2 reports student to teacher, full-time equivalent (FTE), and student to administrator ratios for Kentucky and its neighboring states. When reading this table, bear in mind that a higher student to teacher or student to administrator ratio means fewer employees per output. Thus, the higher the state ranks, the fewer the number of employees per student. As *Section A* of the table and *Figure 4.D.2* show, Kentucky has relatively high student to teacher ratios and there have been very modest decreases in the number of students per teacher during the period 1992 to 2002. In contrast, the ratio of students per administrators including staff (*Section B* and *Figure 4.D.3*) was the second lowest among the states in 2002 and decreased at a rate of 5.2% per annum from 1992 to 2002. This is by far the greatest decrease in the ratios of student to administrator among Kentucky and its neighboring states. Focusing on the ratio of students per district central office administrators and staff in *Section C* shows that while Kentucky has the third lowest ratio of students per central office administrators and staff, this ratio has decreased at a rate of 6.8 per annum from 1992. This represents the greatest increase in central administrators and staff (per student) among the states. Focusing only on central administrators and not including staff (*Section D*) shows more modest increases (in percentage terms) in central administrators indicating the increase has been primarily staff and not administrators in central offices. Kentucky's ratio of student to school administrator was also the second lowest among states in 2002 and, during that period, the rate of reduction in the ratio of student to school administrator in Kentucky, 3.2 percent per annum, was the again the greatest among our benchmark states.

It is possible to calculate a salary figure for employees in primary and secondary education and even calculate a salary figure for personnel involved in instruction. However, we cannot calculate the salaries of specific educational occupations such as administrator or teacher since administrative staff are included in salary expenses for administrators and instructional aides are included in instructional salaries. For this reason, we do not attempt to construct any salary figure and, instead, focus on educational spending and employment as it relates to the number of students being taught.

Table 4.D.1: Current, Administrative, and Instructional Expenditures in Primary and Secondary Education, Various Years (\$2002)¹

Current Expenditures							
A.	Per Student (ADA)			Rank			Annual Percentage Change
	1992	1997	2002	1992	1997	2002	
Kentucky	6,051	6,646	7,536	7	5	7	2.22
Illinois	7,270	7,350	8,967	2	2	1	2.12
Indiana	6,506	7,403	8,268	4	1	4	2.43
Missouri	6,193	6,527	7,699	6	6	6	2.20
Ohio	7,301	7,305	8,928	1	4	2	2.03
Tennessee	4,734	5,617	6,489	8	8	8	3.20
Virginia	6,255	6,363	7,928	5	7	5	2.40
West Virginia	6,511	7,307	8,451	3	3	3	2.64
Administration							
B.	Per Student (ADA)			Rank			Annual Percentage Change
	1992	1997	2002	1992	1997	2002	
Kentucky	604	629	648	3	1	5	0.71
Illinois	607	615	786	2	2	1	2.63
Indiana	481	548	621	6	6	6	2.59
Missouri	568	595	694	4	5	3	2.02
Ohio	618	612	779	1	3	2	2.34
Tennessee	371	417	459	8	8	8	2.16
Virginia	458	447	601	7	7	7	2.76
West Virginia	554	611	694	5	4	3	2.28
Instructional Expenditures							
C.	Per Student (ADA)			Rank			Annual Percentage Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3,707	4,036	4,625	7	5	7	2.24
Illinois	4,355	4,421	5,335	1	3	1	2.05
Indiana	4,042	4,629	5,032	3	1	4	2.22
Missouri	3,757	4,006	4,690	5	6	6	2.24
Ohio	4,161	4,349	5,181	2	4	3	2.22
Tennessee	3,013	3,642	4,223	8	8	8	3.43
Virginia	3,725	3,865	4,887	6	7	5	2.75
West Virginia	3,939	4,526	5,212	4	2	2	2.84

¹Source: National Center for Educational Statistics, U.S. Department of Education (<http://nces.ed.gov/>)

Table 4.D.2: Student to Teacher and Student to Administrator Ratios, Selected Years¹

A.	<i>Student to Teacher (FTE)</i>			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	17.3	16.5	16.3	3	4	2	-0.6
Illinois	16.8	16.8	15.9	5	2	3	-0.5
Indiana	17.6	17.2	16.7	2	1	1	-0.5
Missouri	16.2	15.0	13.9	6	6	7	-1.5
Ohio	16.9	16.7	14.7	4	3	5	-1.4
Tennessee	19.6	16.5	15.8	1	4	4	-2.1
Virginia	15.1	14.3	11.8	8	8	8	-2.4
West Virginia	15.2	14.4	14	7	7	6	-0.8
B.	<i>Student to Administration & Staff</i>			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	87.3	94.6	51.1	4	1	7	-5.2
Illinois	99.3	85.1	74.9	1	4	4	-2.8
Indiana	93.3	90.3	89.5	2	3	1	-0.4
Missouri	64	58.4	71.1	7	8	5	1.1
Ohio	58.4	66.3	46.8	8	7	8	-2.2
Tennessee	77.9	71.7	70.7	6	6	6	-1.0
Virginia	91.4	92.2	77	3	2	2	-1.7
West Virginia	86.9	83.5	77	5	5	2	-1.2
C.	<i>Student to Central Administration & Staff</i>			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	206.5	184.6	102.1	5	5	6	-6.8
Illinois	270.8	210.8	184.3	3	4	4	-3.8
Indiana	727.8	662.8	637.4	1	1	1	-1.3
Missouri	170.7	106.1	93.8	6	8	8	-5.8
Ohio	121.4	122.1	94.4	8	7	7	-2.5
Tennessee	257.8	217.6	237.2	4	3	2	-0.8
Virginia	292.7	317.4	226.4	2	2	3	-2.5
West Virginia	152.1	133.4	127.3	7	6	5	-1.8
D.	<i>Student to Central Administration</i>			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	646.6	635.6	543.4	6	4	6	-1.7
Illinois	1128.7	572.1	517.3	2	6	7	-7.5
Indiana	1086.7	1072.6	1031.7	3	1	1	-0.5
Missouri	1020.6	831.6	701.4	4	3	3	-3.7
Ohio	322.8	333.4	280.7	8	8	8	-1.4
Tennessee	1019.3	504.8	775.3	5	7	2	-2.7
Virginia	573.9	634.8	634.6	7	5	5	1.0
West Virginia	1233.7	936.1	680.6	1	2	4	-5.8

Table 4.D.2: Student to Teacher and Student to Administrator Ratios, Selected Years (continued)

E.	Student/School Administrator			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	366.6	370.2	263.7	3	3	7	-3.2
Illinois	427.5	374.1	330.6	1	2	2	-2.5
Indiana	345.9	344.2	340.8	5	4	1	-0.1
Missouri	365.1	329.7	298.9	4	5	3	-2.0
Ohio	369.1	1750.8	281	2	1	5	-2.7
Tennessee	207	209.4	189.6	8	8	8	-0.9
Virginia	310.6	308	286.6	6	6	4	-0.8
West Virginia	278.5	281.4	265.7	7	7	6	-0.5

¹Source: National Center for Educational Statistics, U.S. Department of Education (<http://nces.ed.gov/>)

Figure 4.D.1: Current Expenditures per Student (ADA), Selected Years \$2002¹

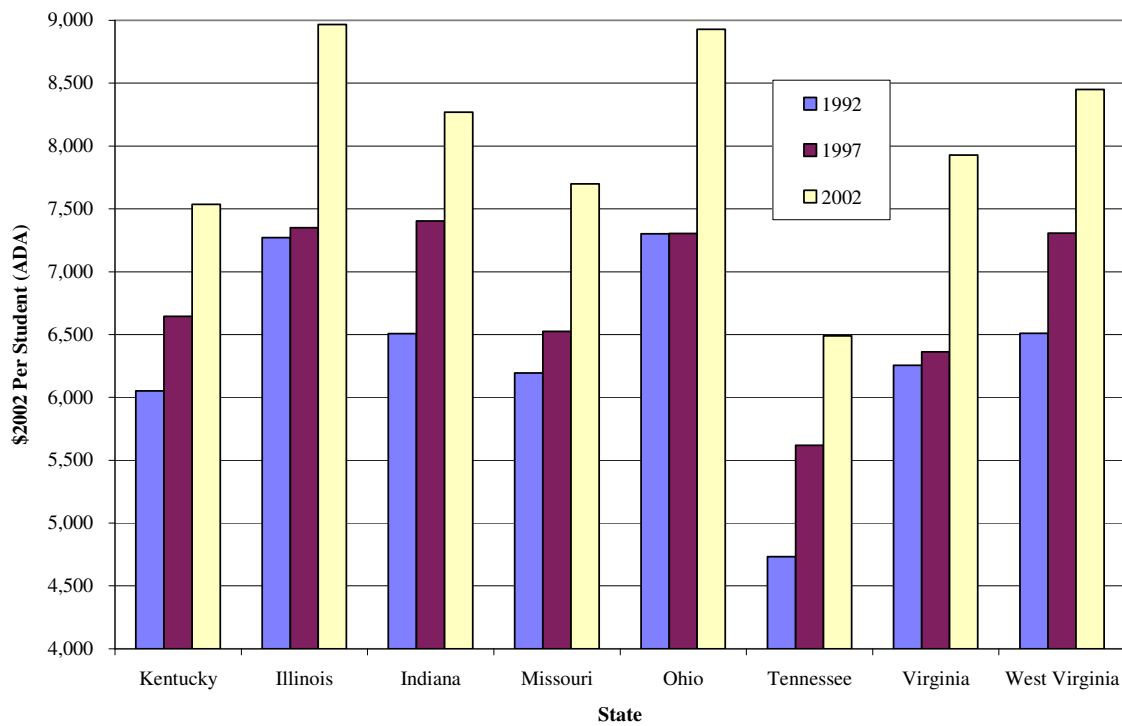


Figure 4.D.2: Annualized Percentage Change in Student to Teacher Ratio, 1992 to 2002¹

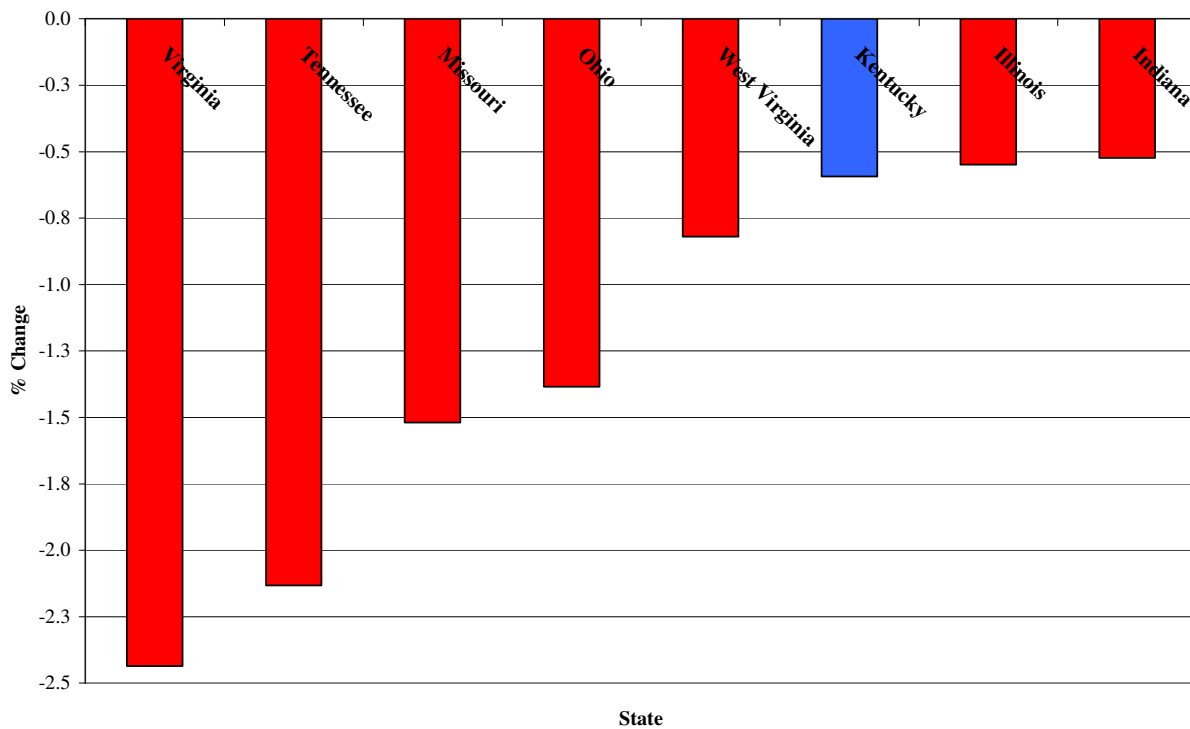
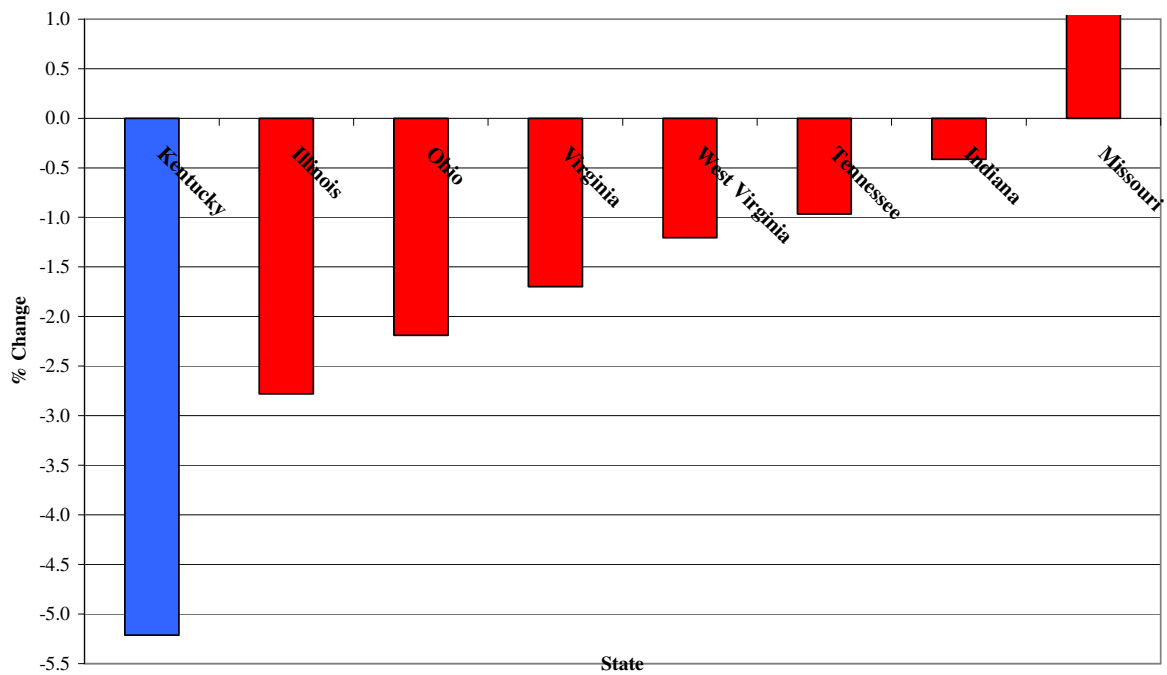


Figure 4.D.3: Annualized Percentage Change in Student to Administrator (and staff) Ratio, 1992 to 2002¹



4.E Higher Education

Higher public education is, in most states, the financial responsibility of the state government. Of course, in contrast to primary and secondary education, revenues come from a variety of sources other than state funds including tuition, research funding, and revenues from services provided by the institution, such as hospital care for a University with a hospital and medical school.

In addition to a number of different sources of revenue, public higher education has a broad spectrum of services it provides and a number of distinct constituencies. Of course, one service it provides is educating and training students. Even this service, or output, is extremely broad, however, and there are notable distinctions in the manner and resources used to educate undergraduate and graduate students as well as distinctions in educating across different fields and disciplines. In addition to the education of students, public colleges and universities in Kentucky have, to varying degrees, a research mission in which output is often measured through publications and external funding, particularly federal funding. Again, the measurement of this output also varies by field with, for example, the opportunities for funding in the natural or medical sciences being very different than what might be available in humanities. Broadly speaking, public universities and colleges have a service mission to provide education and applied research to benefit the residences of the community or state.

Given the broad and diverse mission of universities, attempts at measuring the output or quality of higher educational services are extremely difficult. Here we provide information on the relative contribution of states to higher education as well as some comparisons regarding the sources of funds for education. We also report data on relative salaries for faculty.

Table 4.E.1 reports the state inflation-adjusted (\$2002) higher education appropriations per full-time (public) students (FTE). As the table and *Figure 4.E.1* both show, appropriations per student have risen dramatically in real terms from 1997 to 2002, averaging an increase of almost 9% per annum and moving Kentucky from the second lowest (8) to second highest ranking per student. A different measure of the state contribution to higher education is shown in *Table 4.E.2*. Here we measure state higher education appropriations per capita to indicate the effort by the state. Again, the state contribution in Kentucky has increased significantly during this period (1998 to 2004) and Kentucky has had the highest appropriations per capita from 2000 to 2004. The average per annum real increase has been 3.7% with Kentucky being the only state with a positive real increase in appropriations per capita.

Table 4.E.3 provides data on average tuition (total tuition/FTE) in public institutions from 1997 to 2002. Tuition in real terms has increased by almost 5% in Kentucky, which is fairly typical for Kentucky's neighbors. Only Illinois had lower tuition than Kentucky in 2002, and Kentucky's average tuition was relatively close to its neighbors with the exceptions of Indiana and Ohio.

As with employment for primary and secondary education, in *Table 4.E.4* we report on the student to staff and student to faculty ratios for public higher education institutions in 2000, separating institutions into 2-year and 4-year colleges. As the table indicates, Kentucky has somewhat lower student to staff and student to faculty ratios than the national average in 4-year institutions and higher ratios for 2-year colleges.

Table 4.E.5 provides information about annual (9-month) faculty salaries for 1999-2000, the most recent year available. In comparing inflation-adjusted salaries, faculty salaries in Kentucky lagged the U.S. average and most of its neighbors for all types of institutions during this time despite the funding contributions of the state. When adjusting for differences in private salaries, Kentucky fares better in the comparisons, although it might be argued that these adjustments are not appropriate for occupations for which the market is national or regional and not simply local.

Table 4.E.1: State Higher Education Appropriations per Full-Time Student, Selected Years (\$2002)¹

	1997		2000		2002		Annual % Change
Kentucky	4552	8	7206	3	6966	2	8.88
U.S.	5818	3	6431	4	6262	4	1.48
Illinois	6347	2	7384	2	7984	1	4.70
Indiana	5569	4	5814	7	4761	9	-3.09
Missouri	6419	1	7908	1	6605	3	0.57
Ohio	5076	6	5847	6	5535	6	1.75
Tennessee	5402	5	5163	8	5241	7	-0.60
Virginia	4847	7	5933	5	5810	5	3.69
West Virginia	3664	9	4511	9	4824	8	5.66

¹ Source: The National Information Center for Higher Education Policymaking and Analysis (<http://www.higheredinfo.org>)

Table 4.E.2: State Higher Education Appropriations per Capita, Selected Years (\$2002)¹

	1998		2000		2002		2004		Annual % Change
Kentucky	212	5	250	1	267	1	263	1	3.7
U.S.	215	3	222	4	226	4	205	4	-0.8
Illinois	218	2	226	3	234	2	208	3	-0.8
Indiana	214	4	220	5	216	6	213	2	-0.1
Missouri	179	9	191	9	186	9	143	9	-3.7
Ohio	191	8	196	7	194	7	177	6	-1.3
Tennessee	195	7	192	8	187	8	174	8	-1.9
Virginia	198	6	230	2	234	3	176	7	-1.9
West Virginia	221	1	220	5	218	5	192	5	-2.3

¹ Source: The National Information Center for Higher Education Policymaking and Analysis (<http://www.higheredinfo.org>)

Table 4.E.3: Average Tuition in Public Higher Education Institutions, Selected Years (\$2002)¹

	1997		2000		2002		Annual % Change
Kentucky	2595	6	3329	4	3291	7	4.9
Illinois	1608	8	1926	8	2217	8	6.6
Indiana	3725	3	4294	1	4848	2	5.4
Missouri	4322	1	3095	6	3332	6	-5.1
Ohio	3755	2	4199	2	5090	1	6.3
Tennessee	2412	7	3154	5	3887	3	10.0
Virginia	3533	4	3548	3	3597	4	0.4
West Virginia	2893	5	2990	7	3392	5	3.2

¹ Source: The National Information Center for Higher Education Policymaking and Analysis (<http://www.higheredinfo.org>)

Table 4.E.4: Student/Staff and Student/Faculty Ratios in Public Higher Education Institutions, 2000¹

	Students per Staff				Students per FTE faculty				FTE Faculty as Percentage of Staff			
	4 Year		2 Year		4 Year		2 Year		4 Year		2 Year	
Kentucky	3.8	6	11.5	2	13.5	6	23.3	3	28.4	4	49.6	2
United States	4.1	4	8.8	6	14.5	4	18.4	7	28.3	5	47.9	3
Illinois	3.7	8	9.9	3	14.1	5	22.1	4	26.3	8	44.9	5
Indiana	4.5	2	6.7	9	16.3	1	15.4	9	27.4	6	43.7	6
Missouri	3.7	7	8.3	8	12.5	9	17.4	8	30.0	2	47.7	4
Ohio	4.1	3	9.7	4	15.5	3	19.2	6	26.7	7	50.6	1
Tennessee	3.3	9	9.6	5	13.1	8	23.8	2	25.3	9	40.5	8
Virginia	3.9	5	14.9	1	13.4	7	37.1	1	29.5	3	40.0	9
West Virginia	5.7	1	8.4	7	15.6	2	20.5	5	36.7	1	41.0	7

¹Source: Digest of Educational Statistics, 2002 (<http://nces.ed.gov/edstats/>)

Table 4.E.5: Average 9-month Faculty Salary, Inflation Adjusted and Inflation-Adjusted and Indexed by Institution Type, 1999-2000¹

A. Inflation Adjusted								
	4-year institutions						2-year	
	Total		University		Other 4-year			
Kentucky	55,421	8	63,532	7	50,914	8	44,045	6
United States	61,957	3	67,992	2	58,007	2	51,576	2
Illinois	61,386	4	67,565	3	56,247	4	57,632	1
Indiana	59,744	5	63,344	8	52,658	7	39,868	8
Missouri	56,748	6	67,231	4	54,650	5	46,492	5
Ohio	64,029	2	65,971	5	56,861	3	51,318	3
Tennessee	55,590	7	64,510	6	52,713	6	39,579	9
Virginia	64,382	1	70,233	1	60,810	1	47,050	4
West Virginia	50,326	9	58,917	9	46,415	9	42,212	7
B. Inflation-Adjusted and Indexed								
	4-year institutions						2-year	
	Total		University		Other 4-year			
Kentucky	55,421	3	63,532	2	50,914	5	44,045	5
United States	52,955	8	58,113	8	49,578	7	44,082	4
Illinois	52,022	9	57,258	9	47,667	9	48,841	1
Indiana	56,899	2	60,327	5	50,150	6	37,970	9
Missouri	53,036	7	62,833	3	51,075	4	43,450	6
Ohio	57,684	1	59,433	7	51,227	3	46,232	2
Tennessee	55,040	4	63,871	1	52,191	1	39,187	8
Virginia	55,027	5	60,028	6	51,974	2	40,214	7
West Virginia	53,538	6	62,678	4	49,377	8	44,906	3

¹Source: The Integrated Postsecondary Education Data System (IPEDS), National Center for Educational Statistics, U.S. Department of Education, (<http://nces.ed.gov/ipeds/>)

Figure 4.E.1: State Higher Education Appropriations per Full-Time Student, Selected Years (\$2002)¹

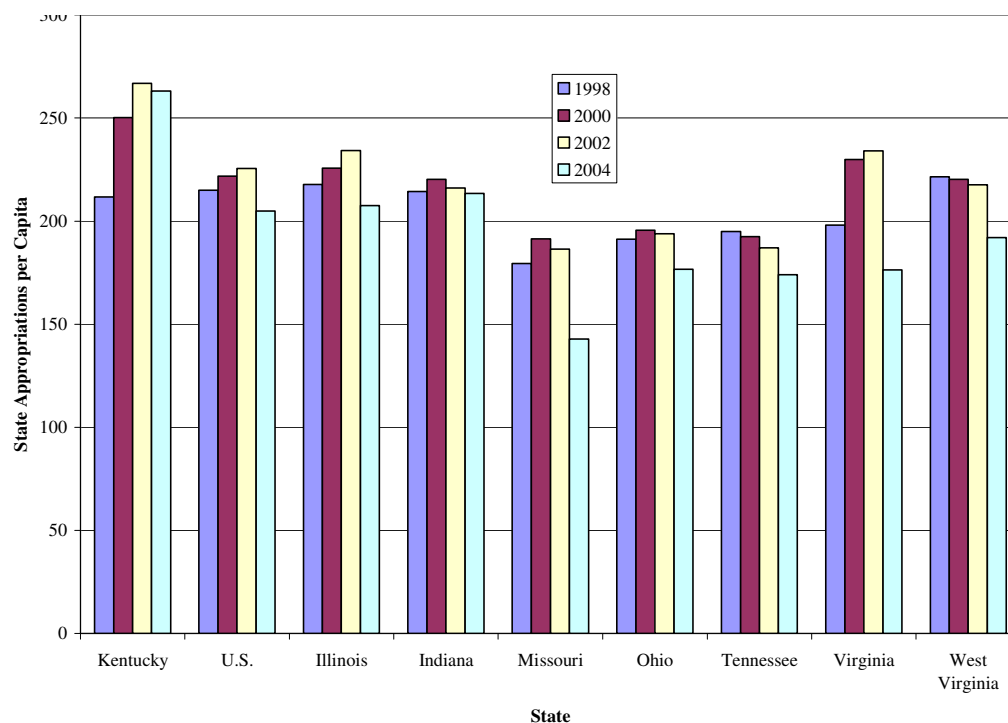


Figure 4.E.2: State Higher Education Appropriations per Capita, Selected Years (\$2002)¹

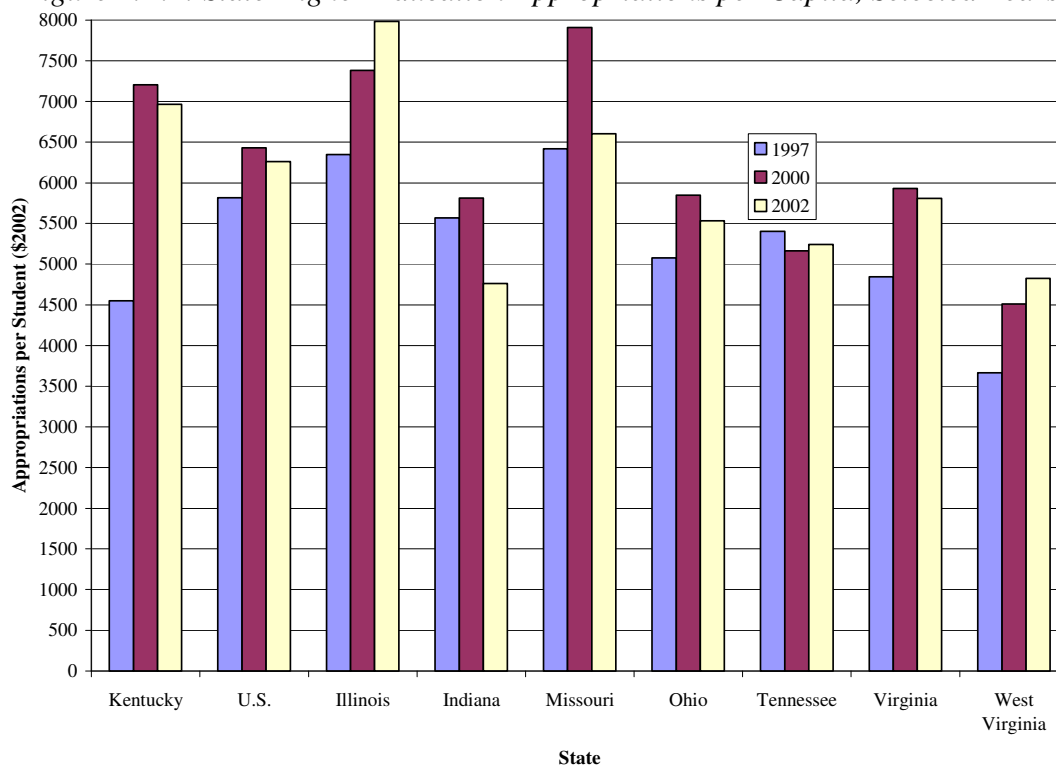
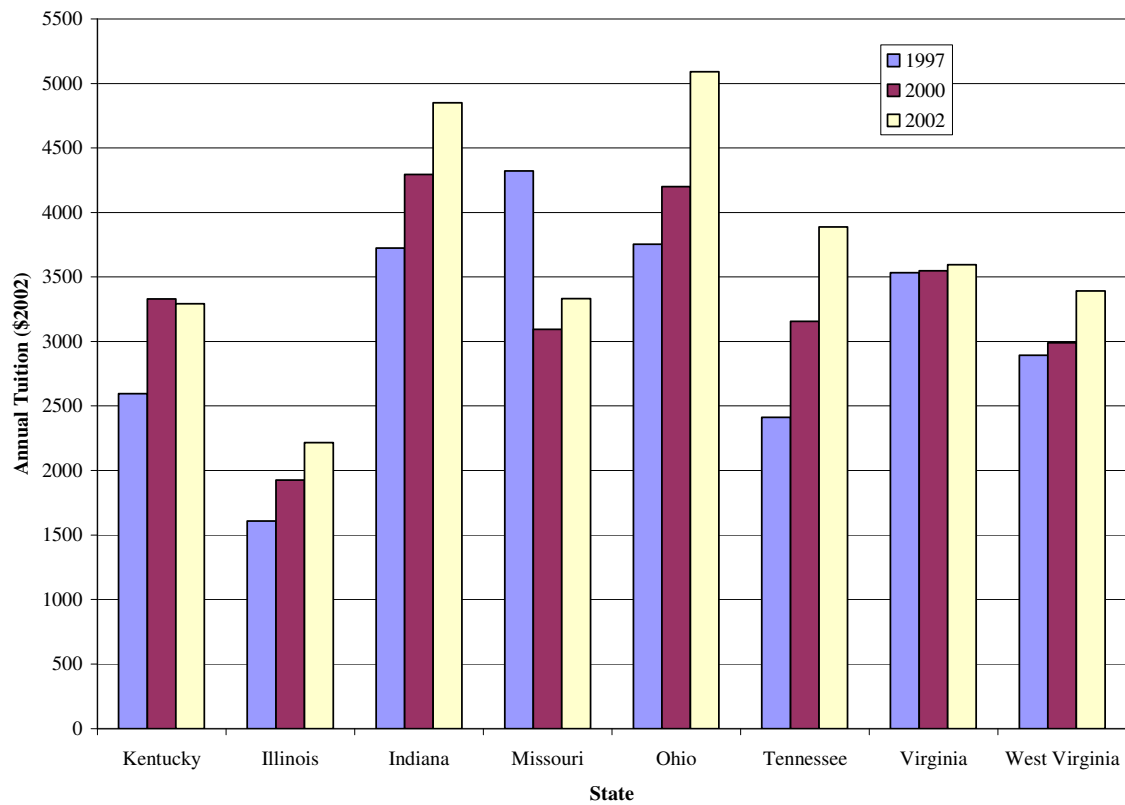


Figure 4.E.3: Average Tuition in Public Higher Education Institutions, Selected Years (\$2002)¹



4.F Public Health and Hospitals

4.F.1 Public Health

We believe that comparisons of Public Health and Hospital expenditures and employment among states might be particularly difficult given the wide variety of operations that fall in these categories and the substantial differences in the extent that the states vary in the what services they provide publicly. The variety of public services included under the heading of public health can be seen from the extensive (and confusing) definition of what is included in the *Annual Survey of Government Employment and Finances*:

Public health administration, laboratories, public education, vital statistics, research, and other general health activities; categorical health programs (e.g., control of cancer, TB, socially transmitted diseases, mental illness, etc. and maternal and child health care); health-related inspection and regulation (e.g., inspection of restaurants, water supplies, food handlers, nursing homes, etc.); community and visiting nurses; immunization programs; out-patient health clinics; regulation of air and water quality, sanitary engineering, and other environmental health activities; rabies and animal control; abatement of mosquitoes, rodents, and other vermin; ambulance and emergency medical services ONLY IF handled separately from fire department; alcohol and drug abuse prevention and rehabilitation; school health services provided by a health agency; activities funded by Federal W.I.C. funds--Women, Infants, and Children. For Federal Government also includes Food and Drug Administration and Environmental Protection Agency (except sewerage construction grants).

In addition to this broad spectrum of activities under the guise of health services, states differ significantly in the extent that services are provided by state or local authorities. As *Figure 4.F.1* shows a significantly smaller share of public health expenditures in Kentucky are borne by the state government, only about fifty percent, compared to over seventy percent of expenditures coming from the state government in five of our comparison states.

As *Tables 4.F.1* and *4.F.2* and *Figure 4.F.2* indicate in 2002 Kentucky was in the middle of the states with in both state and combined state and local health expenditures with combined spending of \$178 per capita compared to, for example, spending of \$270 per capita in Ohio and \$238 per capita in Illinois. The U.S average is \$206 per capita. However, this is a major change from being at the bottom (lowest expenditures) in both 1992 and 1997 for state expenditures and second to the bottom in combined expenditures.

In Kentucky, state and local health service real expenditures increased at a rate of 7.3% per annum, the highest among our comparison states. For state expenditures the rate was 9.5% per annum significantly above the second highest increase, 7.1%, in Illinois. In terms of \$2002 rather than percentage, Kentucky's per capita spending increased by \$90; only Ohio with an increase of \$102 and Illinois, with an increase of \$110, increased more during the ten years from 1992 to 2002.

Not surprisingly, employment in health services, per 1,000 residents, in Kentucky has increased during this period as well as shown in *Table 4.F.3* and *Figure 4.F.2*. In 2002, Kentucky employed 1.76 state and local health service workers per 1,000 residents, nearly the same as Ohio, which had the highest employment at 1.78 per 1000 residents. Kentucky's employment

is well above the U.S. average of 1.49 employees per 1000. Growth in health service employment in Kentucky was 2.02% per annum during the ten years from 1992 to 2002, second only to Missouri's rate of 3.31%.

Finally, *Table 4.F.4* and *Figure 4.F.4* provides average monthly compensation for state health service employees adjusted for inflation (\$2002) and indexed for differences in local salaries as discussed earlier. Kentucky's salaries, when indexed were in the middle of the states in 2002 and have been decreasing. If not indexed, Kentucky's salaries would be much lower relative to other states. Also relative to other states, Kentucky's salaries have fallen – in 1997, when indexed, Kentucky had the highest salaries while in 2002, Kentucky's salaries were fifth highest.

4.F.2 Public Hospitals

Public hospital and hospital expenditures included in the Census Bureau *Annual Survey of Government Finances and Expenditures* are

Hospital facilities providing in-patient medical care and institutions primarily for care and treatment of handicapped (rather than education) which are directly administered by a government, including those operated by public universities. Also covers direct payments for acquisition or construction of hospitals whether or not the government will operate the completed facility.

Examples include:

Government-operated general hospitals; institutions for the custody, treatment, or general care of the mentally insane or defective, feeble-minded, mentally retarded, or emotionally disturbed; TB sanatoria, maternity and children hospitals, orthopedic hospitals, and hospitals for chronic diseases; institutions for care and treatment of blind, deaf, developmentally disabled, or other special classes of handicap; hospitals associated with university medical schools (including paid student help).⁷

As *Table 4.F.5* and *4.F.6* indicate, expenditures on state and local public hospitals, as defined by the Census Bureau are relatively small in Kentucky. In 2002, only West Virginia (\$158 per capita) had lower combined state and local public hospital expenditures than Kentucky (\$175) well below the U.S. average of \$304. Real spending on public hospitals decreased at a 1% per annum rate from 1992 to 2002. Per capita combined state and local public hospital spending is illustrated in *Figure 4.F.6* as well.

Consistent with the decrease in real expenditures has been a significant decrease in employment in state and local public hospitals. As shown in *Table 4.F.7* there has been a per annum decrease in state hospital employment of 1.71% per annum from 1992 to 2002 and from *Table 4.F.8*, a decrease of 2.05% per annum for combined state and local employment. *Figure 4.F.7* illustrates this decline as well.

Finally, we provide information about salaries of state public hospital employees in *Tables 4.F.9* and *4.F.10*. Given the range of activities, from sanatoria to research hospitals, and

⁷ Again the source for this definition is the manual for the *Annual Survey of Government Finances and Employment* available at <http://www.census.gov/govs/www/classfunc36.html> for hospital services.

differs in what states do publicly, a base for comparisons is difficult. Undoubtedly, some of the differences in average salaries is attributable to differences in the scope and mission of public hospitals. Emphasis on research would probably lead to higher salaries as more staff would be physicians and researchers; an emphasis on long term care would probably lead to lower use of physicians. In 2002 Kentucky's average state salary was second among the states at \$3,063 per month though it lagged the U.S. average of \$3,202. Salaries have grown in real terms at a rate of 1.60%, above most states and among the leaders along with Virginia (1.67%) and Tennessee (1.57%). If salaries are indexed to adjust for differences in average salaries among the states, as reported in *Table 4.F.10*, then Kentucky's salaries are well above the U.S. average and higher than the other states. Of course, as always is the case, this indexing may be inappropriate if hospital employees have a national and not local market.

Table 4.F.1: State Expenditures on Health, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	38	52	94	9	9	5	9.5
United States	80	96	104	5	4	4	2.7
Illinois	97	152	193	1	1	1	7.1
Indiana	66	65	78	7	7	8	1.6
Missouri	81	116	83	4	3	7	0.2
Ohio	47	72	85	8	6	6	6.1
Tennessee	82	122	138	3	2	2	5.3
Virginia	91	62	64	2	8	9	-3.5
West Virginia	71	78	109	6	5	3	4.4

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table: 4.F.2: State and Local Expenditures on Health, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	88	108	178	8	8	5	7.3
United States	150	180	206	2	3	3	3.2
Illinois	128	189	238	4	2	2	6.3
Indiana	87	89	110	9	9	9	2.3
Missouri	114	159	124	6	5	8	0.9
Ohio	168	230	270	1	1	1	4.9
Tennessee	115	159	179	5	4	4	4.5
Virginia	143	126	156	3	6	6	0.9
West Virginia	110	122	128	7	7	7	1.5

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table: 4.F.3: State and Local Employment in Health Services per 1,000, Selected Years¹

	Per 1000 residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.44	1.50	1.76	3	4	2	2.02
United States	1.36	1.42	1.49	5	5	4	0.93
Illinois	0.80	0.86	0.85	8	8	8	0.70
Indiana	0.73	0.78	0.79	9	9	9	0.79
Missouri	1.00	1.56	1.39	6	2	5	3.31
Ohio	1.82	1.80	1.78	1	1	1	-0.19
Tennessee	1.43	1.17	1.15	4	6	6	-2.13
Virginia	1.47	1.55	1.56	2	3	3	0.62
West Virginia	0.98	1.13	1.04	7	7	7	0.63

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.F.4: State Salaries for Health, Indexed and Adjusted for Inflation, Selected Years¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3231	4492	3080	2	1	5	-0.48
United States	2862	3273	2837	5	7	6	-0.09
Illinois	2951	3670	3327	3	3	3	1.21
Indiana	2769	3473	3112	6	4	4	1.18
Missouri	2699	2615	2462	8	9	9	-0.92
Ohio	3593	4219	3934	1	2	1	0.91
Tennessee	2715	3431	2765	7	5	7	0.18
Virginia	2922	3357	2677	4	6	8	-0.87
West Virginia	2104	2808	3628	9	8	2	5.60

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.F.5: State Expenditures on Hospitals, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	101	127	112	6	2	4	1.1
United States	133	123	129	3	3	3	-0.3
Illinois	75	80	73	8	7	7	-0.2
Indiana	119	44	44	4	9	9	-9.6
Missouri	97	92	157	7	5	2	4.9
Ohio	135	88	111	2	6	5	-1.9
Tennessee	108	116	75	5	4	6	-3.5
Virginia	196	197	236	1	1	1	1.9
West Virginia	64	51	56	9	8	8	-1.3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.F.6: State and Local Expenditures on Hospitals, Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	194	177	175	7	6	8	-1.0
United States	300	290	304	3	3	4	0.1
Illinois	166	176	176	9	7	7	0.5
Indiana	361	345	357	2	2	2	-0.1
Missouri	195	210	305	6	5	3	4.6
Ohio	210	167	208	5	9	6	-0.1
Tennessee	362	420	391	1	1	1	0.8
Virginia	236	233	281	4	4	5	1.8
West Virginia	181	176	158	8	8	9	-1.3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.F.7: State Employment in Hospitals per 1,000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.59	1.34	1.34	8	6	5	-1.71
United States	2.05	1.77	1.42	4	4	4	-3.59
Illinois	1.80	1.27	1.09	6	7	6	-4.91
Indiana	2.06	1.00	0.78	3	9	9	-9.30
Missouri	2.52	2.54	2.34	2	1	1	-0.74
Ohio	1.70	1.43	1.01	7	5	7	-5.05
Tennessee	2.00	1.99	1.62	5	2	3	-2.09
Virginia	3.06	1.96	1.84	1	3	2	-4.97
West Virginia	1.32	1.05	0.93	9	8	8	-3.44

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.F.8: State and Local Employment in Hospitals per 1,000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2.88	2.48	2.34	9	8	6	-2.05
United States	4.19	3.71	3.19	3	4	4	-2.69
Illinois	3.17	2.53	2.10	7	7	8	-4.04
Indiana	5.88	4.91	4.56	1	1	2	-2.53
Missouri	4.00	4.05	4.06	4	3	3	0.13
Ohio	2.99	2.56	2.01	8	6	9	-3.89
Tennessee	4.90	4.47	5.12	2	2	1	0.45
Virginia	3.81	2.38	2.34	5	9	5	-4.74
West Virginia	3.17	2.96	2.20	6	5	7	-3.60

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.F.9: State Salaries for Hospitals, Adjusted for Inflation, Selected Years¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2,613	2,596	3,063	5	5	3	1.60
United States	2,998	3,032	3,202	2	2	1	0.66
Illinois	2,828	3,218	3,078	4	1	2	0.85
Indiana	2,958	2,157	2,528	3	8	7	-1.56
Missouri	2,324	2,344	2,491	8	6	8	0.70
Ohio	3,247	2,827	2,836	1	3	6	-1.34
Tennessee	2,599	2,737	3,037	6	4	4	1.57
Virginia	2,418	2,221	2,852	7	7	5	1.67
West Virginia	1,856	1,692	1,993	9	9	9	0.72

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.F.10: State Salaries for Hospitals, Indexed and Adjusted for Inflation, Selected Years¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2786	3111	3063	3	2	1	0.95
United States	2699	3056	2654	4	3	3	-0.17
Illinois	2362	3007	2365	6	4	6	0.01
Indiana	2924	2377	2388	2	7	5	-2.00
Missouri	2300	2606	2306	7	6	8	0.03
Ohio	3046	2964	2558	1	5	4	-1.73
Tennessee	2656	3111	2895	5	1	2	0.87
Virginia	2259	2314	2331	8	8	7	0.32
West Virginia	1951	2009	2138	9	9	9	0.92

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Figure 4.F.1: Percentage of State Share in State and Local Expenditures on Health, 1999-2000

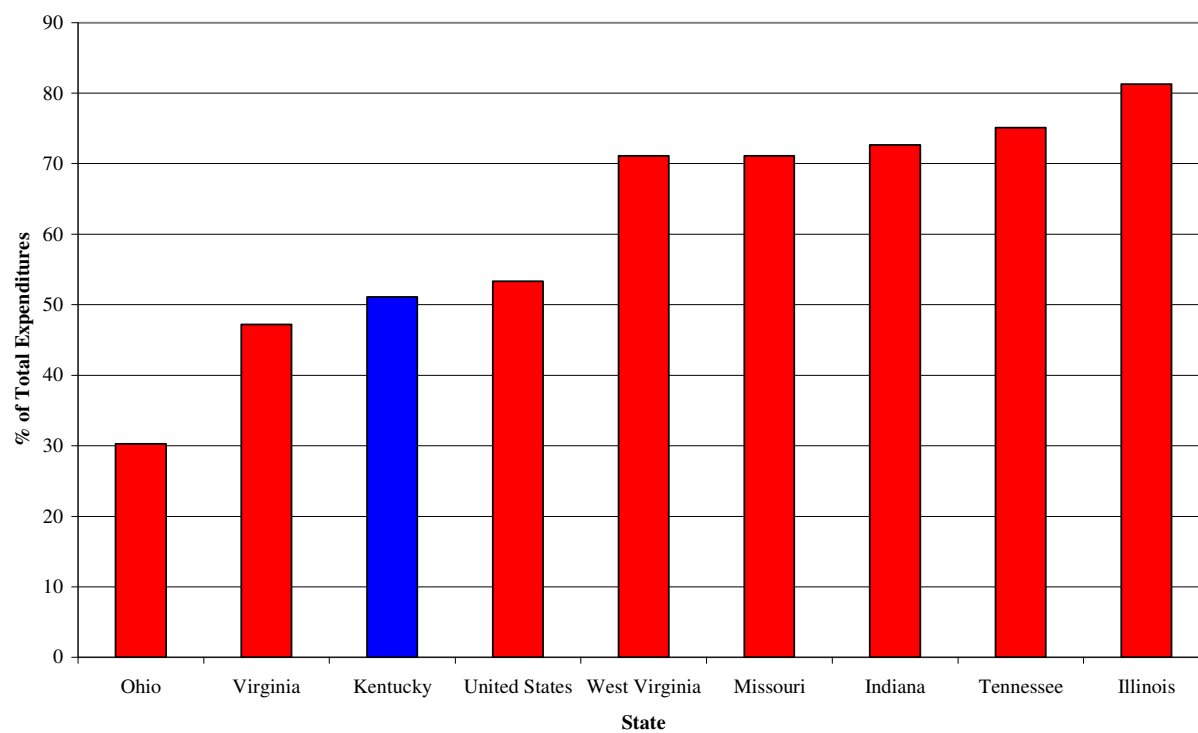


Figure 4.F.2: State and Local Expenditures on Health per Capita, Selected Years

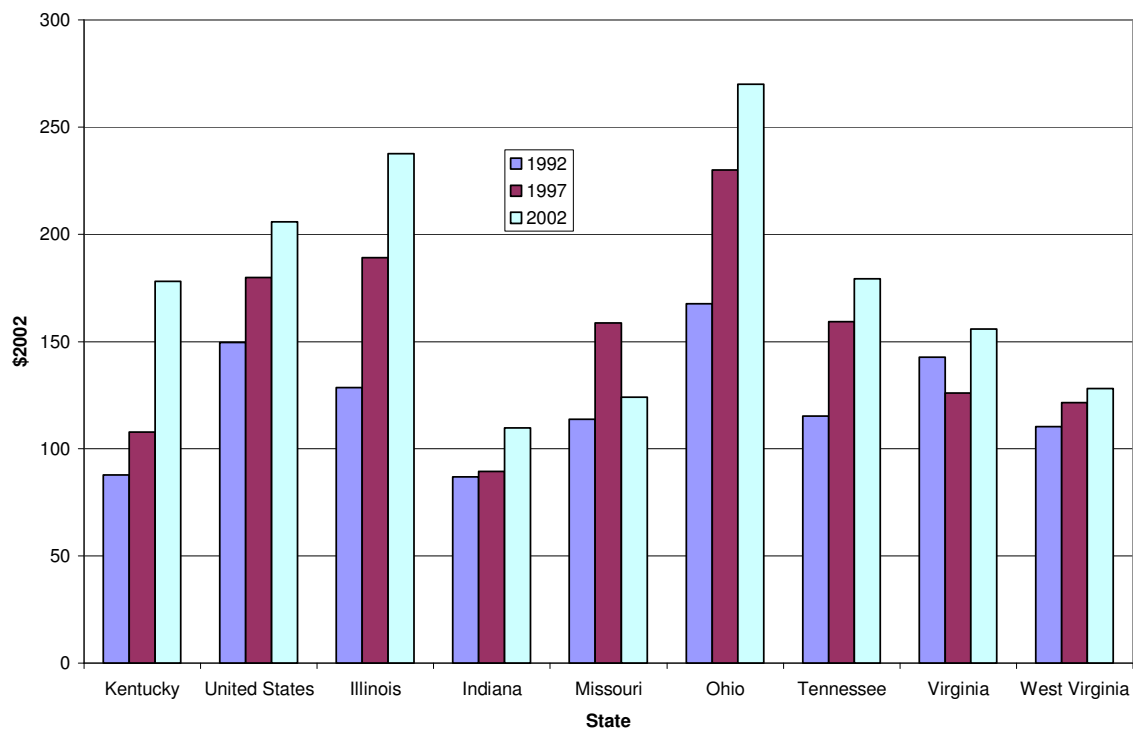


Figure 4.F.3: State and Local Employment in Health per 1,000 Residents, Selected Years

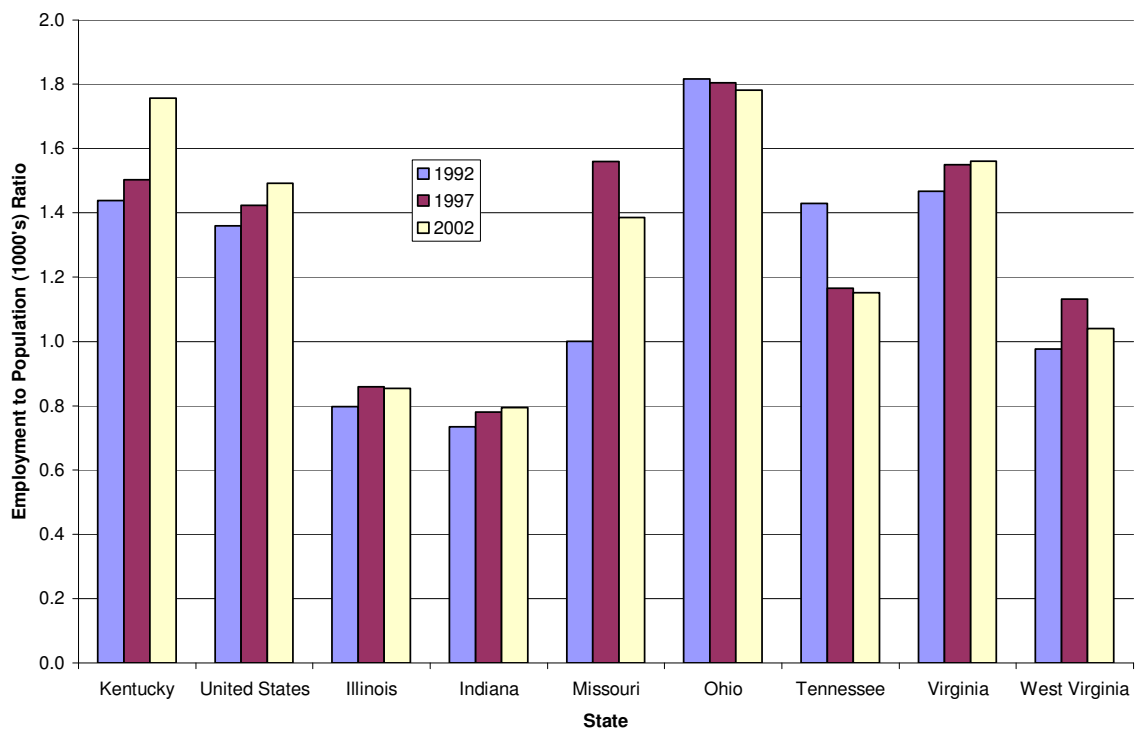


Figure 4.F.4: Salaries, Average for Health, Indexed and Adjusted for Inflation

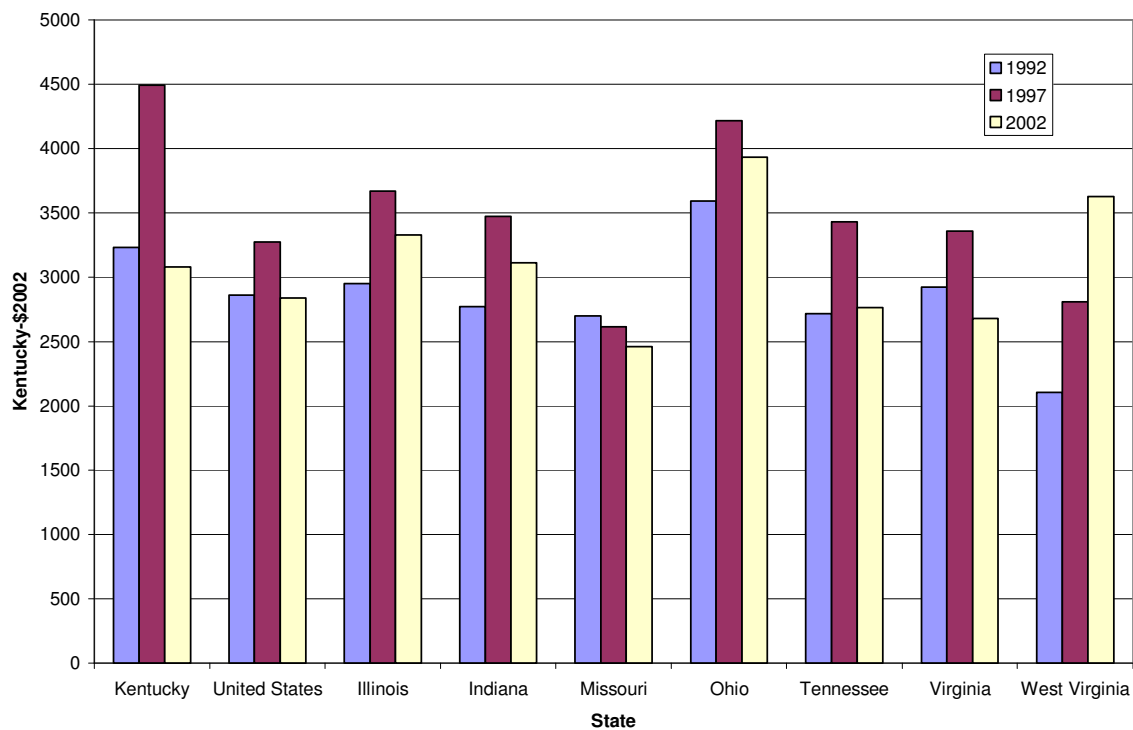


Figure 4.F.6: State and Local Expenditures on Hospitals per Capita, Selected Years

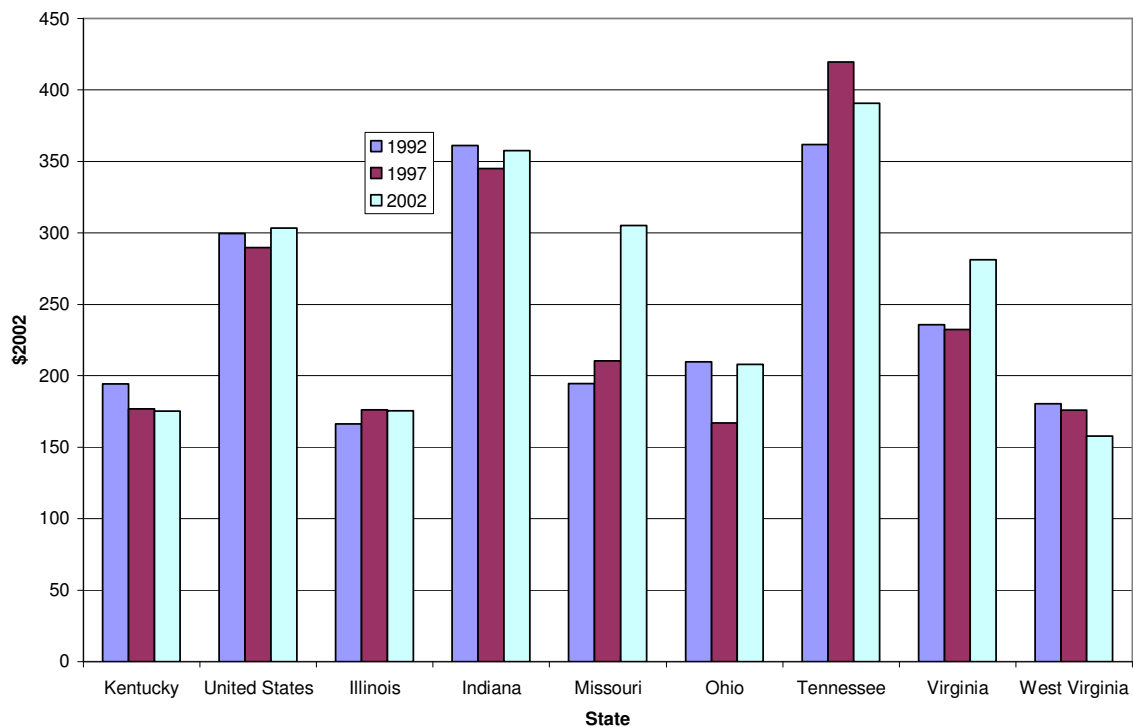
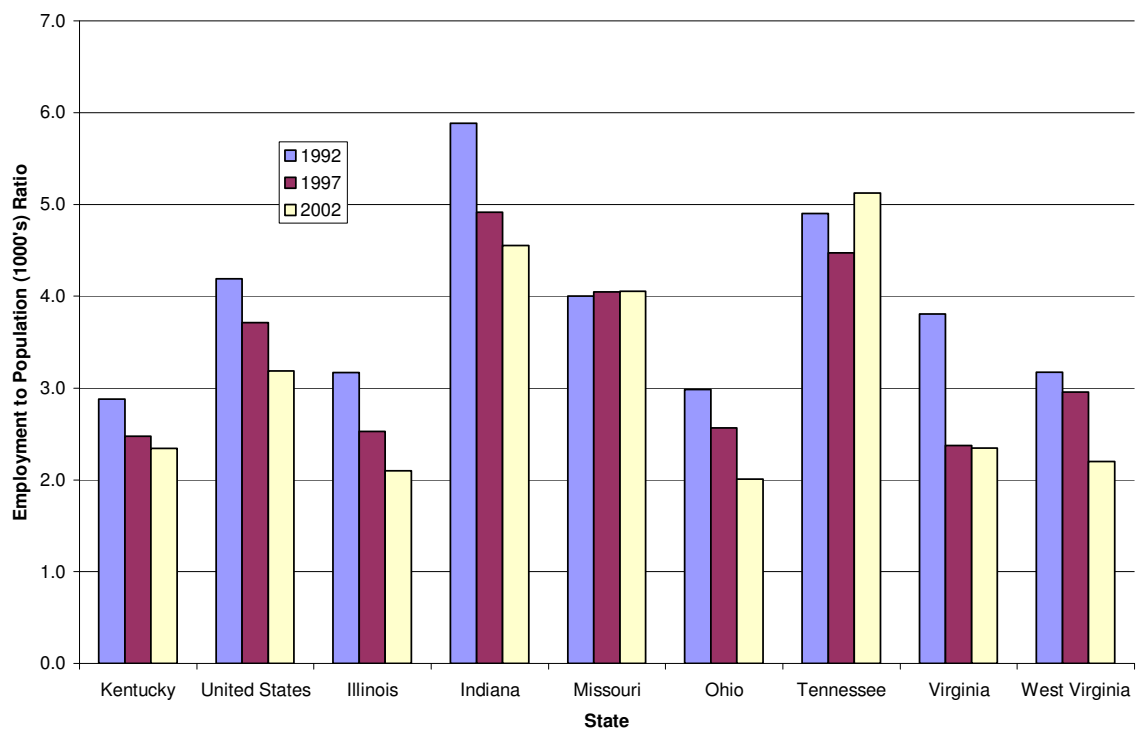


Figure 4.F.7: State and Local Employment in Hospitals per 1,000 Residents, Selected Years



4.G Highways and Roadways

While revenues for highway and roadways in most states do not come from general funds, nor do they in Kentucky, they are still a major expenditure for the state and a critical component of infrastructure.

As *Figure 4.G.1* illustrates in Kentucky, as is the case with most services, spending is primarily by the state government with state expenditures comprising 80% of combined state and local spending in 2000. In contrast, the U.S. average is only 60% and less than 50% of spending is by the state in Illinois. Then while report state expenditures and employment, clearly, appropriate comparisons require comparisons of state and local expenditures and employment.

Table 4.G.1 reports state expenditures per capital on highways (and roadways) for 1992, 1997, and 2002. In 2002, Kentucky spent \$395 per capita on state highways with only West Virginia spending more (\$547). For combined state and local expenditures, reported in *Table 4.G.2*, Kentucky had the highest spending per capita, \$477. This exceeds the next highest state, Illinois by over \$25 per capita and the national average by \$75. *Tables 4.G.3* and *4.G.4* report state governments and combined state and local governments capital outlays per capita. For both state and state and local per capital spending, Kentucky ranks second only trailing West Virginia.

It is difficult and probably misleading to attempt to infer much about relative costs of or efficiency in the production of highway services based upon per capita costs. Per capita costs could vary for a number of reasons unrelated to efficiency in provision including differences in highway miles (per capita), terrain, climate, and usage. While all these factors are likely to influence costs attempts to account for all of them are beyond the scope of this study. However, we do attempt to account for differences in highway usage and highway miles using data from the *Highway Performance Monitoring System (HPMS)* administered by the Federal Highway Administration (<http://www.fhwa.dot.gov/policy/ohpi/hpms/>). *Table 4.G.5* reports usage (average annual daily traffic flow) and lane miles for each of the states for federal, state, and local highways and roadways. As the table indicates, Kentucky has significantly more lane miles, particularly controlled by the state, than many state with much larger populations.

Table 4.G.6 reports the expenditures per traffic mile for state, local, and combined (state and local) highways for fiscal year 2000. This is calculated using the data in *Table 4.G.5* with data on highway expenditures. Traffic miles are simply the number of miles of roadways and the average annual traffic flow. Costs are reported both per mile of roadway and per mile of lanes. As the table suggests once accounting for differences in use and miles of roadway, Kentucky's costs are relatively low. *Figure 4.G.3* illustrates the combined state and local cost per mile of roadway.

Tables 4.G.7 and *4.G.8* report highway employees per 1,000 residents. Again, when costs are measured in terms of population, Kentucky has high levels of employment. While not reported here, reporting costs per mile of roadway leads to Kentucky having relatively modest employment in this function.

Finally, we report on salaries. In *Table 4.G.9* we report average montly salaries for state highway workers for 1992, 1997, 2002. Again, these are both adjusted for inflation and indexed to adjust for local wage differences. For highway workers, this adjustment to reflect local labor markets seems appropriate. When adjusting for local wage differences, Kentucky's workers pay

is second only to that in Ohio in 2002. In addition, Kentucky is only one of three states that has had real earnings increase over this period.

Table 4.G.1: State Expenditures on Highways, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	292	288	395	2	3	2	3.1
United States	206	208	248	6	6	5	1.9
Illinois	226	197	237	5	8	6	0.5
Indiana	169	204	204	9	7	8	1.9
Missouri	197	210	284	7	5	4	3.7
Ohio	180	168	198	8	9	9	0.9
Tennessee	229	215	208	4	4	7	-0.9
Virginia	279	330	355	3	2	3	2.4
West Virginia	366	486	547	1	1	1	4.1

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.G.2: State and Local Expenditures on Highways, Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	368	365	477	3	3	1	2.6
United States	340	349	402	6	6	5	1.7
Illinois	399	359	451	1	4	2	1.2
Indiana	273	311	330	9	9	7	1.9
Missouri	320	358	436	8	5	3	3.2
Ohio	322	315	359	7	8	6	1.1
Tennessee	341	338	306	5	7	8	-1.1
Virginia	359	420	426	4	2	4	1.7
West Virginia	392	513	576	2	1	1	3.9

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.G.3: State Expenditures on Highways (Capital Outlays), Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	2000	2002	1992	2000	2002	
Kentucky	227	265	271	1	2	2	1.8
United States	141	157	171	6	6	7	1.9
Illinois	165	97	174	4	9	5	0.5
Indiana	121	157	137	9	7	9	1.3
Missouri	128	176	188	8	5	4	3.9
Ohio	137	156	146	7	8	8	0.6
Tennessee	195	188	173	3	3	6	-1.2
Virginia	155	185	220	5	4	3	3.5
West Virginia	201	269	306	2	1	1	4.3

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.G.4: State and Local Expenditures on Highways (Capital Outlays), Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	2000	2002	1992	2000	2002	
Kentucky	236	278	288	1	1	2	2.0
United States	189	213	230	5	6	6	2.0
Illinois	235	169	271	2	9	3	1.4
Indiana	137	185	163	9	8	9	1.7
Missouri	168	235	239	8	3	5	3.6
Ohio	184	221	198	7	5	7	0.8
Tennessee	233	229	192	3	4	8	-1.9
Virginia	187	207	239	6	7	4	2.5
West Virginia	204	271	307	4	2	1	4.2

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.G.5: Average Daily Traffic Flow and Lane Miles (1999) by Government in Control¹

State	Average Daily Traffic, Federal	Average Daily Traffic, Local	Average Daily Traffic, State	Lane Miles, Federal	Lane Miles, Local	Lane Miles, State
Kentucky	2.00	1.42	0.81	2,053	100,720	60,812
Illinois	9.79	2.35	2.16	511	244,485	43,952
Indiana		0.45	0.56		166,332	28,248
Missouri	1.12	0.49	0.63	2,208	181,739	69,938
Ohio		4.28	1.88	540	193,218	55,681
Tennessee		3.37	2.06	594	147,821	35,825
Virginia	2.02	7.21	3.21	3,793	26,335	122,929
West Virginia		4.21	1.41	1,355	4,528	70,233

¹ Source: Highway Performance Monitoring System (HPMS) administered by the Federal Highway Administration (<http://www.fhwa.dot.gov/policy/ohpi/hpms/>)

Table 4.G.6 Highway Expenditures, Per Mile Traffic Flow \$2002 for 1999

State	Road Miles			Lane Miles		
	Local	State	Combined	Local	State	Combined
Kentucky	7	55	24	4	25	12
Missouri	11	42	19	5	19	9
Indiana	9	121	23	5	48	11
Tennessee	10	90	23	5	36	11
West Virginia	24	27	26	12	13	13
Illinois	20	117	32	10	45	15
Ohio	21	102	36	10	41	17
Virginia	44	41	41	20	19	19

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.G.7: State Employment in Highways per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.53	1.43	1.34	3	3	3	-1.34
United States	1.01	0.93	0.86	5	5	5	-1.52
Illinois	0.76	0.67	0.69	9	9	8	-0.99
Indiana	0.86	0.74	0.69	7	7	7	-2.08
Missouri	1.22	1.22	1.11	4	4	4	-0.92
Ohio	0.81	0.70	0.62	8	8	9	-2.66
Tennessee	0.95	0.91	0.77	6	6	6	-2.06
Virginia	1.77	1.47	1.45	2	2	2	-1.98
West Virginia	3.18	3.25	2.76	1	1	1	-1.40

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.G.8: State and Local Employment in Highways per 1,000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2.25	2.18	2.13	5	4	3	-0.56
United States	2.06	2.00	1.90	6	6	6	-0.81
Illinois	1.56	1.61	1.69	9	9	9	0.81
Indiana	1.85	1.81	1.69	8	8	8	-0.87
Missouri	2.26	2.52	2.34	4	2	2	0.33
Ohio	1.85	1.86	1.84	7	7	7	-0.07
Tennessee	2.27	2.19	1.92	3	3	5	-1.66
Virginia	2.37	2.08	1.98	2	5	4	-1.78
West Virginia	3.65	3.76	3.26	1	1	1	-1.11

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Table 4.G.9: State Salaries for Highways, Indexed and Adjusted for Inflation, Selected Years¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2907	3209	3083	3	4	2	0.59
United States	2876	3159	2867	4	6	5	-0.03
Illinois	3065	3879	2978	2	2	3	-0.29
Indiana	2411	2621	2360	8	9	9	-0.22
Missouri	2819	3200	2758	5	5	6	-0.22
Ohio	3261	4012	3417	1	1	1	0.47
Tennessee	2525	2759	2386	6	8	8	-0.56
Virginia	2365	3272	2478	9	3	7	0.47
West Virginia	2487	3025	2914	7	7	4	1.60

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Figure 4.G.1: State Expenditures as a Share of Total Expenditures on Highways 2000

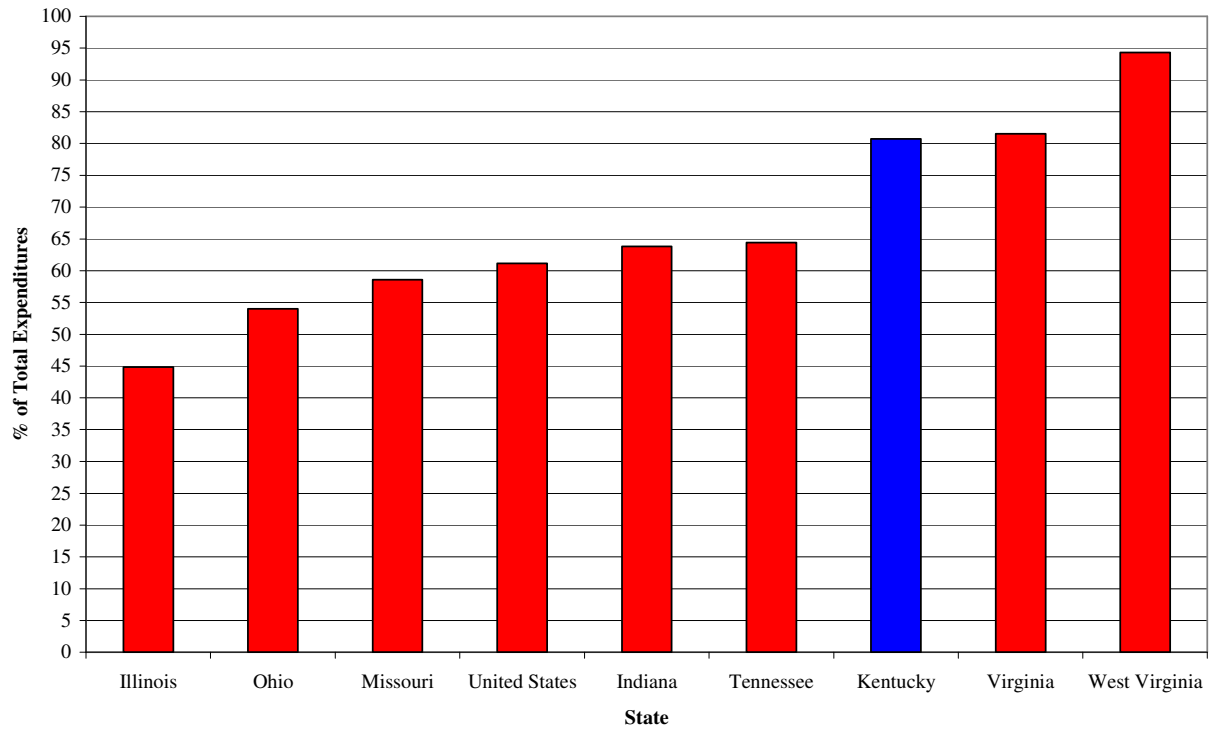


Figure 4.G.2: State and Local Expenditures on Highways per Capita, Selected Years

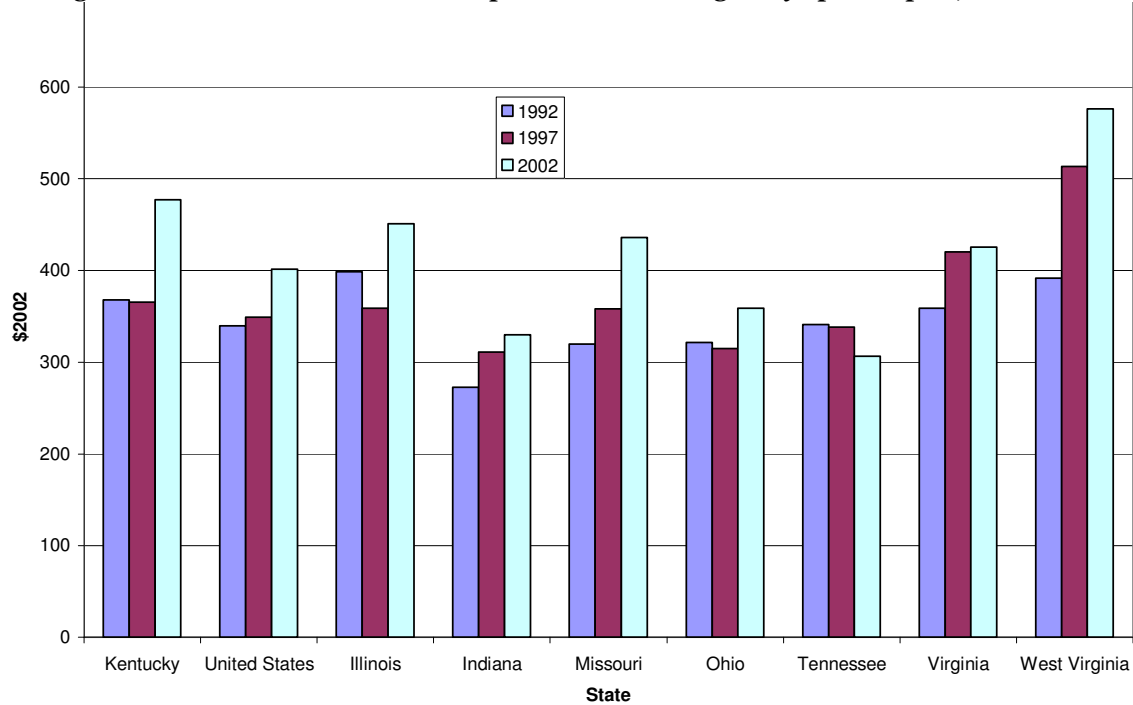


Figure 4.G.3: State and Local Highway Expenditures per Mile of Roadway, 1999

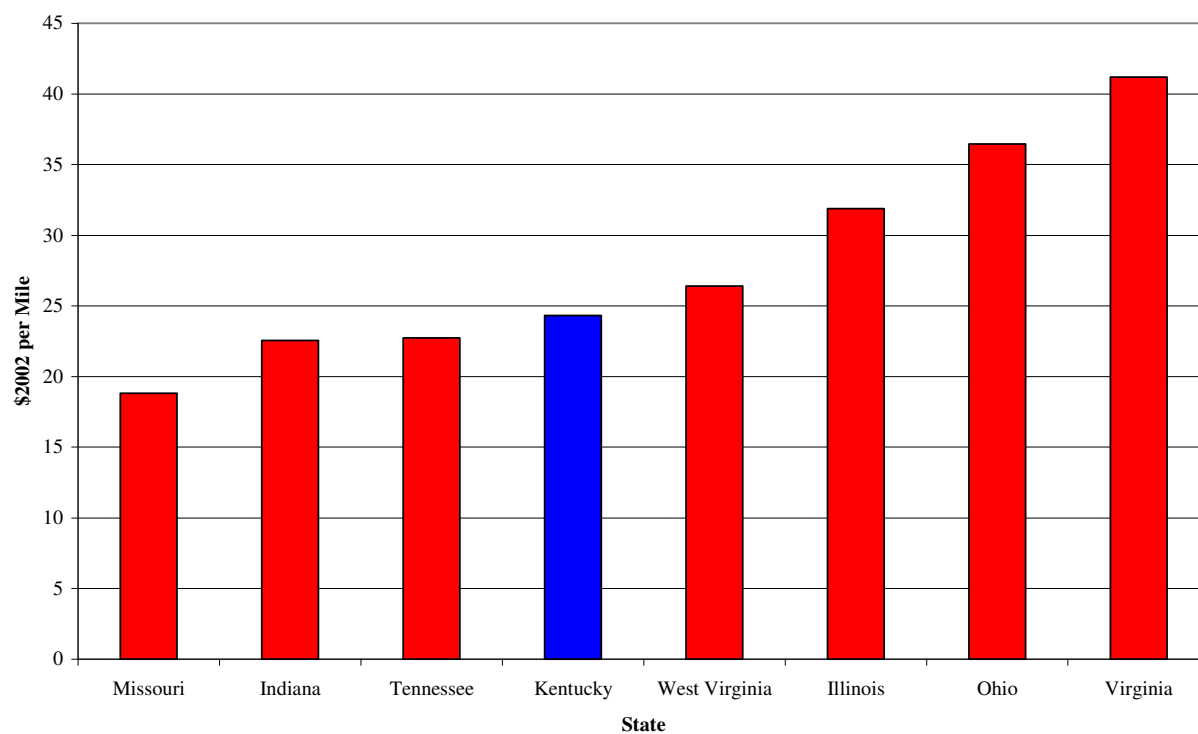


Figure 4.G.4: State and Local Employment in Highways per 1,000 Residents, Selected Years

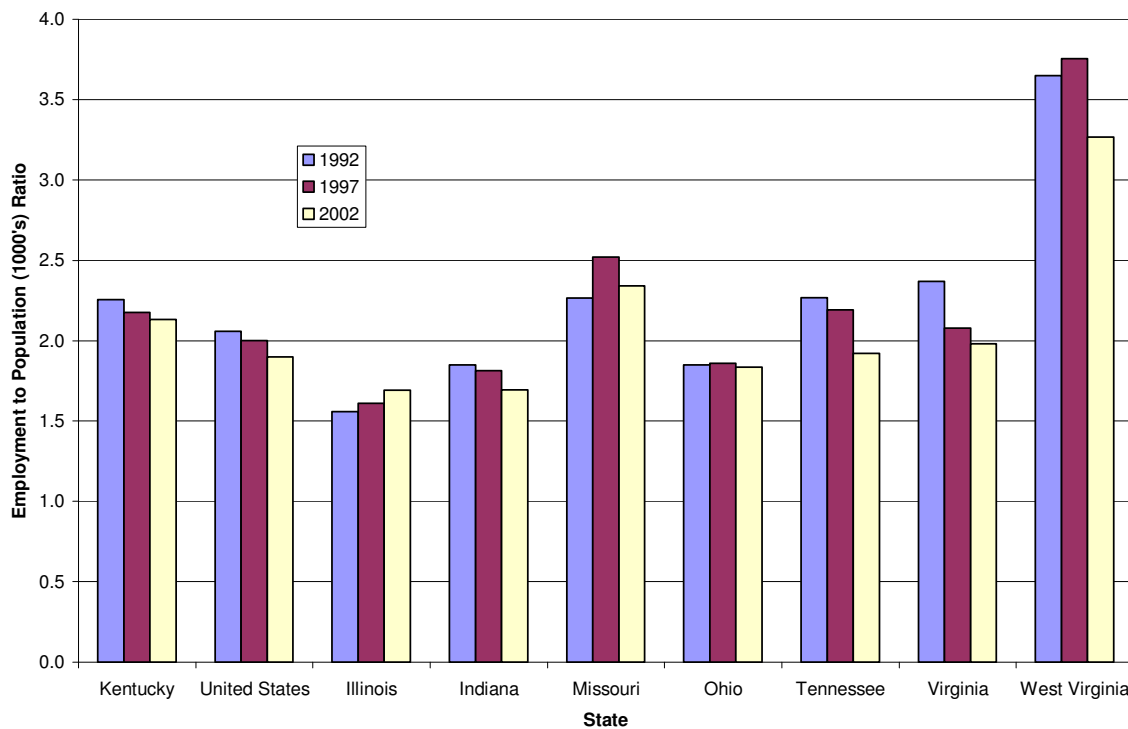
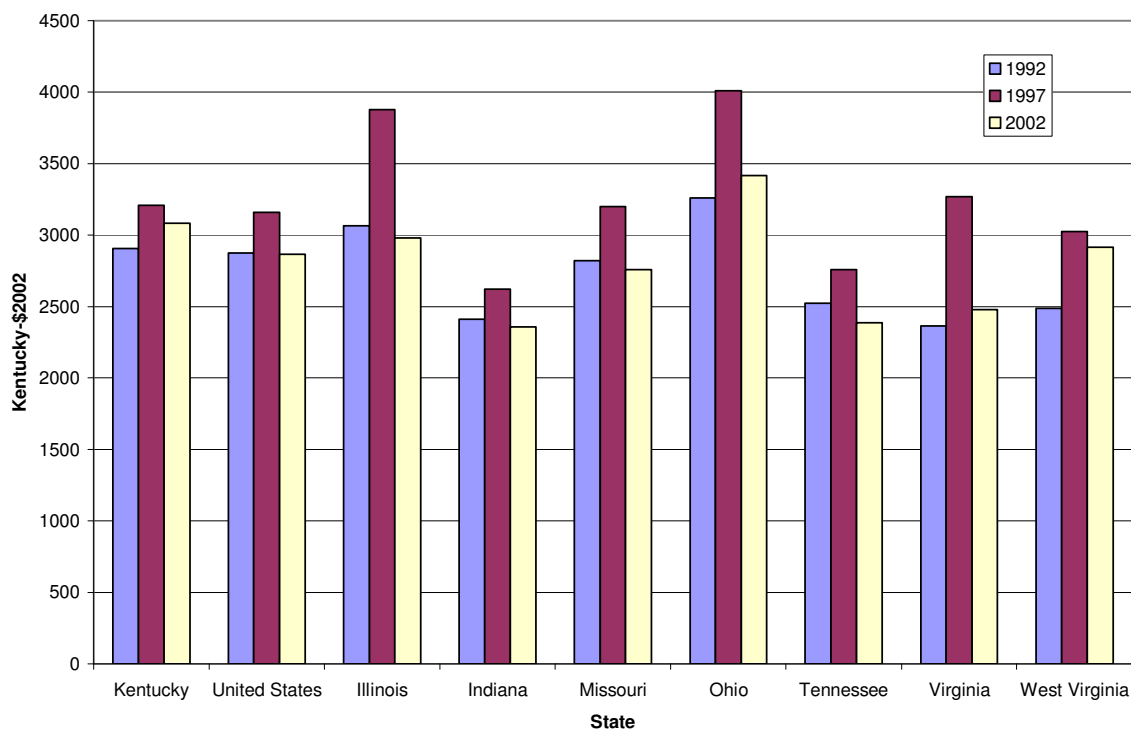


Figure 4.G.5: Salaries, Average for Highways, Indexed and Adjusted for Inflation



4.H Judicial and Legal Services

As with other government services and as we discussed in *Section 3*, a much greater share of judicial and legal services are provided by the state government in Kentucky than in most states. In Kentucky in 2002 90% of all state and local expenditures on judicial and legal services were by the state government; in contrast, the average for the U.S. was 45%.

Data for our comparisons and trend analysis is again from the *Annual Survey of Government Finances and Employment* undertaken by the Government Division of the U.S. Census Bureau. From the classification manual for the survey, judicial and legal services are defined to be “[c]ourts (criminal and civil) and activities associated with courts, legal services, and legal counseling of indigent or other needy persons.” The manual lists as examples:

Criminal and civil courts of limited and general jurisdiction; appellate courts; juries, court reporters, witness fees, and law libraries; medical and social service activities of courts (except probation); court activities of sheriff offices (bailiffs or "civil" functions); registers of wills and other probate activities; legal departments, general counsels, solicitors, prosecuting and district attorneys; attorneys providing government-wide services; public defenders; payments for court-appointed lawyers; indigent defense; and contributions to legal aid societies.⁸

Data on the number of court cases at either the state or municipal level is not provided by any federal agency. While crime and arrest figures are available from the Bureau of Justice, these would seem to be an incomplete measure of the relative court responsibilities and efforts in each state. For this reason, we simply use per capita measures to compare legal and judicial services with the understanding that population alone is not the determining factor for judicial expenses.

It is not surprising, given the high concentration of expenditures at the state level, that Kentucky has higher per capita spending on judicial and legal than any of its neighboring states as shown in *Table 4.H.1* or higher state employment per 1,000 residents as shown in *Table 4.H.3*. However, when combined state and local spending (*Table 4.H.2* and *Figure 4.H.1*) considered Kentucky has been ranked in the middle (5th) of the comparison states and its annual real growth in per capital spending of 3.6% is also in the middle. In 2002, Kentucky ranked 2nd in state and local judicial employees per 1,000 residents, up from a ranking of 4th (*Table 4.H.4* and *Figure 4.H.2*). However, the number of employees per 1,000 in Kentucky (1.48) is not too different than the U.S. average (1.41). Kentucky has had a relative fast increase in employment, 2.73% per annum, essentially the same as West Virginia's and the highest among the states. Finally, as shown in *Table 4.H.5*, Kentucky's average monthly earnings for state judicial and legal employees, even when indexed for differences in local wages, are significantly below those in surrounding states. However, one possible explanation for the lower monthly earnings is that because Kentucky has so many more employees (per capita) it is probably likely that a greater share of its employees may be employed in judicial and legal occupations that traditionally, and across states, receive lower compensation.

⁸ See the manual for the *Annual Survey of Government Finances and Employment*, <http://www.census.gov/govs/www/classfunc25.html>.

Table 4.H.1: State Expenditures on Judicial and Legal, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	46	58	70	1	1	1	4.4
United States	32	36	50	2	2	2	4.5
Illinois	21	21	24	7	7	7	1.6
Indiana	12	15	17	9	9	9	3.9
Missouri	29	27	35	5	6	5	1.9
Ohio	13	17	22	8	8	8	5.3
Tennessee	21	29	31	6	5	6	3.9
Virginia	30	31	48	3	4	4	4.7
West Virginia	29	34	48	4	3	3	5.3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.H.2: State and Local Expenditures on Judicial and Legal, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	54	68	77	5	5	5	3.6
United States	83	92	109	1	1	2	2.7
Illinois	67	76	88	3	3	4	2.8
Indiana	45	50	62	8	9	9	3.3
Missouri	52	66	66	7	6	8	2.3
Ohio	77	90	119	2	2	1	4.5
Tennessee	54	74	73	6	4	6	3.0
Virginia	60	65	90	4	7	3	4.2
West Virginia	44	53	69	9	8	7	4.7

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.H.3: State Employment in Judicial and Legal per 1,000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.97	0.99	1.19	1	1	1	2.06
United States	0.43	0.51	0.56	5	4	4	2.53
Illinois	0.21	0.25	0.26	7	7	7	2.00
Indiana	0.16	0.18	0.20	9	9	9	1.81
Missouri	0.52	0.63	0.67	3	2	2	2.62
Ohio	0.19	0.21	0.25	8	8	8	2.61
Tennessee	0.31	0.35	0.34	6	6	6	1.16
Virginia	0.43	0.45	0.48	4	5	5	1.07
West Virginia	0.54	0.63	0.67	2	3	3	2.24

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>)

Table 4.H.4: State and Local Employment in Judicial and Legal per 1,000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.13	1.28	1.48	4	4	2	2.73
United States	1.18	1.29	1.41	3	3	4	1.80
Illinois	1.25	1.34	1.44	2	2	3	1.47
Indiana	0.89	0.99	1.01	8	7	8	1.32
Missouri	1.00	1.25	1.30	5	5	5	2.63
Ohio	1.44	1.57	1.78	1	1	1	2.18
Tennessee	0.94	0.99	1.06	6	8	7	1.25
Virginia	0.85	0.96	1.01	9	9	9	1.74
West Virginia	0.90	1.03	1.18	7	6	6	2.74

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.H.5: State Salaries for Judicial and Legal, Indexed and Adjusted for Inflation, Selected Years¹

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2864	3447	3120	9	8	8	0.86
United States	3731	3997	3440	5	5	5	-0.81
Illinois	4590	5121	4532	2	1	1	-0.13
Indiana	4819	4660	4528	1	2	2	-0.62
Missouri	3005	3473	3026	7	7	9	0.07
Ohio	3892	4240	3809	4	4	4	-0.22
Tennessee	4039	4621	3946	3	3	3	-0.23
Virginia	3386	3837	3272	6	6	7	-0.34
West Virginia	2886	3426	3306	8	9	6	1.37

¹Source: : U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years
(<http://www.census.gov/govs/www/financegen.html>)

Figure 4.H.1: State and Local Expenditures on Judicial and Legal per Capita, Selected Years

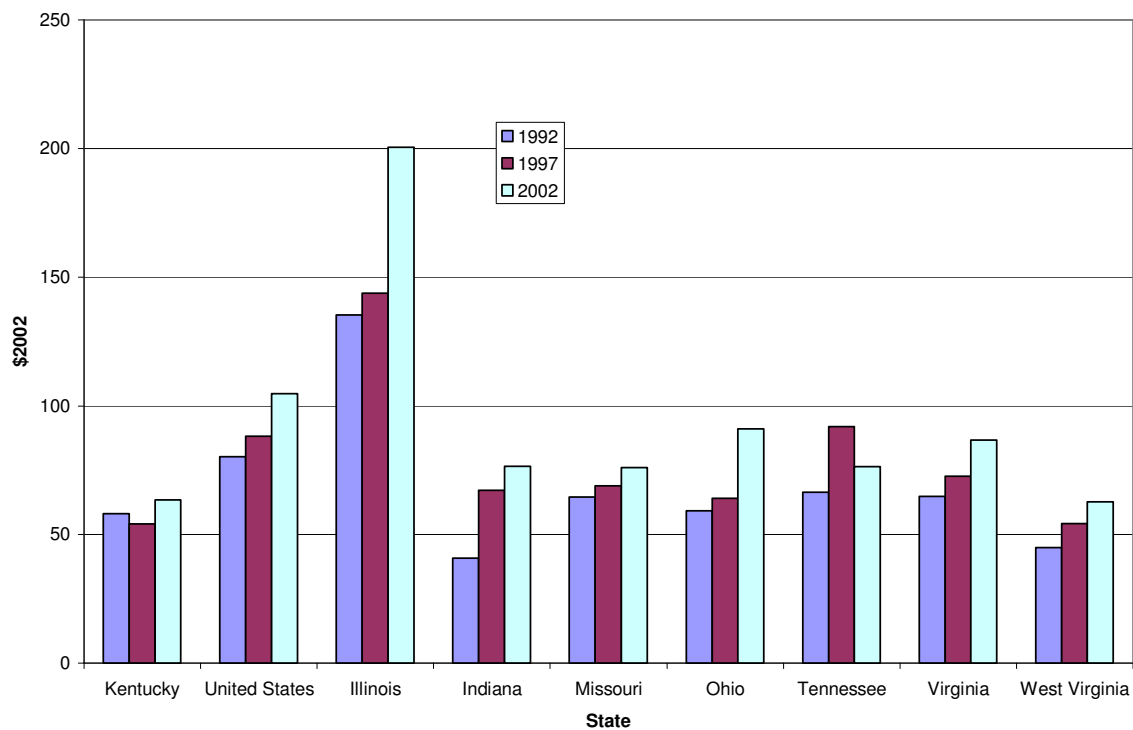


Figure 4.H.2: State and Local Employment in Judicial and Legal per 1,000 Residents, Selected Years

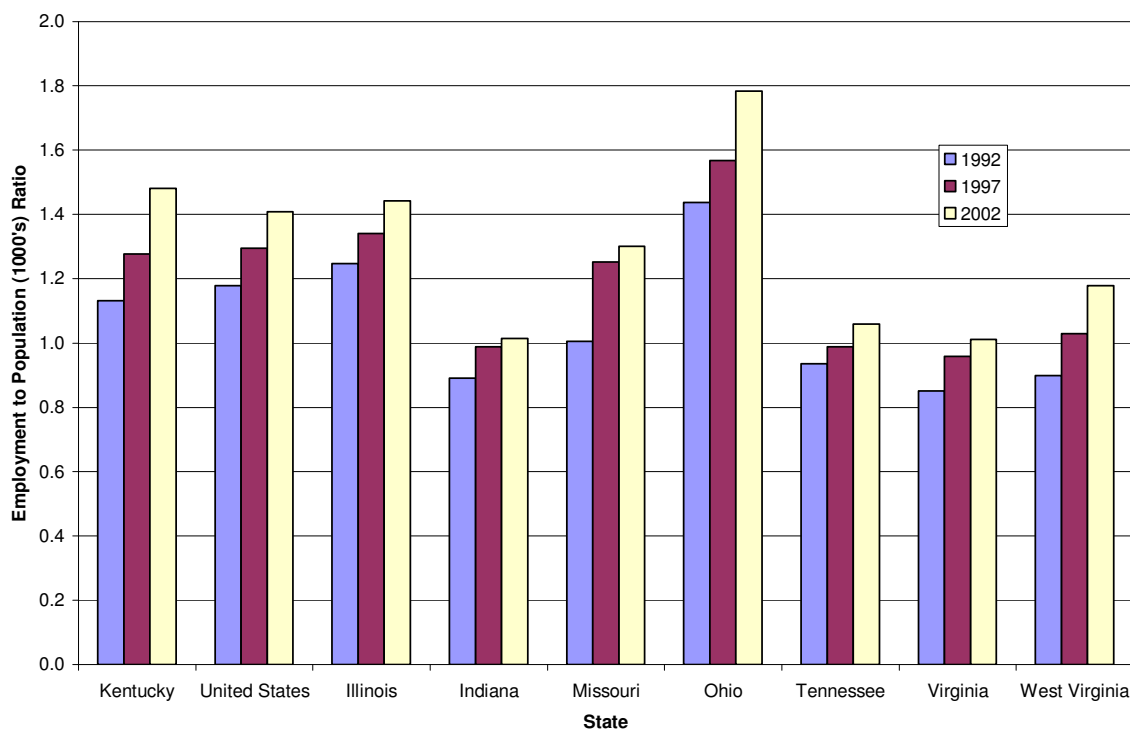
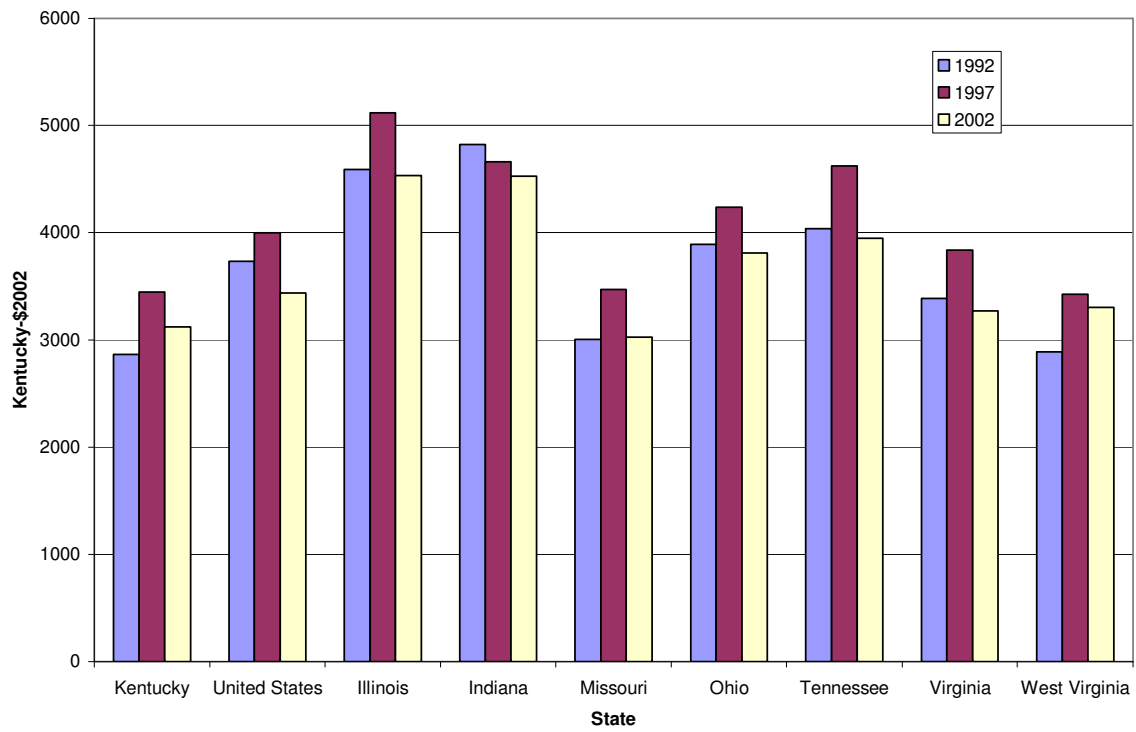


Figure 4.H.3: Salaries, Average for Judicial and Legal, Indexed and Adjusted for Inflation



4.1 *Natural Resources and Parks and Recreation*

4.1.1 *Natural Resources*

The category of natural resource expenditures and employment is a diverse and broad. As reported in the classification manual for the *Survey of Government Finances and Employment* at the state and local level it includes spending on agricultural described as

Development, improvement, promotion, and conservation of natural resources for agricultural purposes; and the regulation and inspection of agricultural products and establishments.

Spending on fish and game:

Conservation, improvement, development, and propagation of fish and game resources; and the regulation and enforcement of fish and game laws and rules.

Spending on forestry:

Conservation, development, management, and protection of forests and forest resources; regulation and inspection of forest products and industries; and provision of assistance to private or local government owners of woodlands.

and other spending such as:

Conservation, promotion, and development of natural resources (soil, water, energy, minerals, etc.) and the regulation of industries which develop, utilize, or affect natural resources. For Federal and state governments, covers activities not reported in other Natural Resources functions.

In the United States most of the spending other than that at the federal level is by state governments (75.5% in 2002) though again Kentucky has a higher share (92.6%) by the state government. Given the variety of services included under the title of natural resources, it is difficult to choose a single summary measure of output or a determinant of usage of these services. Agricultural production is one obvious measure but it is not the only determinant of natural resource expenditures, particularly for Kentucky, which also has a significant share of its land in public forests. Then, failing to have a very good measure of output, we report expenditures and employment as per capita measures.

On a per capita basis, state expenditures on natural resources in Kentucky are high relative to other states, \$69 per person, second only to West Virginia's in 2002 but well below its spending of \$96 per capita (*Table 4.1.1*). Real state spending in Kentucky has been decreasing at a rate of 1.7% per annum from 1992 to 2002. When considering state and local combined spending, not surprisingly, the gap between spending in Kentucky and its neighboring states diminishes somewhat with Kentucky's per capita spending in 2002 of \$74 below the U.S. average of \$76 (*Table 4.1.2* and *Figure 4.1.1*). Again, real spending has decreased in Kentucky at a rate of 1.1% per annum.

From 1992 to 2002, Kentucky ranked second to West Virginia in both state employment in natural resources per 1,000 residents (*Table 4.I.3*) and combined state and local employment (*Table 4.I.4* and *Figure 4.I.2*). Like real spending, employment in natural resources on a per capita basis has slightly declined from 1992 to 2002. Kentucky also ranked second to West Virginia in monthly compensation for natural resource employees when salaries are indexed for differences in relative wages across the states (*Table 4.I.5* and *Figure 4.I.3*). However, when not indexed for regional differences in wages, Kentucky's nominal salaries are ranked in the middle of the states and were over \$400 below the U.S. average in 2002 (*Table 4.I.6*). As can be seen in *Table 4.I.6*, real monthly earnings have increased in Kentucky at a rate of almost 3.5% per annum from 1992 to 2002. While this is quite high compared to most salaries for most government functions, note that it is almost the same as the U.S. average.

4.I.2 Parks and Recreation

As with natural resources, expenditures for parks and recreation are much more centralized in Kentucky than most states. In 2002, 47.4% of spending on parks and recreation was by the state in Kentucky; for the same year the U.S. average was 16.5%.

Table 4.I.7 – 4.I.11 present data for 1992, 1997, and 2002 for expenditures and employment in Parks and Recreation on a per capita (or per 1,000 residents) basis. Given the concentration of spending at the state level, it is not surprising that state spending per capita on parks and recreation in Kentucky is quite high relative to other states. In 2002, spending per capita on state parks and recreation was \$30 per capita second only to \$38 per capita and well above the U.S. average (\$17) (*Table 4.I.7*). However, it is worth noting that in real terms, per capita spending has decrease at an almost 2% rate per annum from 1992 to 2002 in Kentucky. In contrast, the U.S. average increase during this period was 2.3% and no other state saw a decrease in real spending. Consistent with the high level of state spending is the high ranking for state employment in Kentucky (*Table 4.I.9*). Kentucky's state employment in parks and recreation was 0.40 per 1,000 residents over three times as high as the U.S. average. Again, there has been a significant decrease in the level of employment, almost 4% per 1,000 residents from 1992 to 2002.

Rankings for combined state and local spending and employment in parks and recreation are reversed from the state rankings for Kentucky. Kentucky is at the bottom with West Virginia for spending per capita (\$63 in 2002) on state and local parks and recreation compared to spending of \$105 per capita for the U.S (*Table 4.I.8*). Kentucky ranks 7th in employment in combined state and local parks and recreation. From 1992 to 2002, employment fell at a per annum rate of 2.24% (*Table 4.I.9*). Finally, even when indexed to account for lower wages in Kentucky, monthly compensation in Kentucky is quite low, but in contrast to employment has been rising in real terms at a rate of 1.79% (*Table 4.I.11*).

In addition to measuring state park and recreation services on a per capita basis, we consider two alternative measures that we believe might better reflect the costs of these facilities and services. One measure is acreage in state parks with the other being visitors to the park. We report these figures as well as revenues (\$1,000), revenues as a percentage of operating expenses, employment and expenditures (\$1,000) for 2002 in *Table 4.I.12*.⁹ As the table shows the amount of land in state parks in Kentucky is, in fact, relatively small. While revenues, as a percentage of

⁹ Data on acreage, visitors, and revenues is from the *Statistical Abstract of the United States, 2003*. p. 783, *Table 1256*.

operating expenses, is high (66.6%) there are a few states (Indiana and West Virginia) with higher or comparable cost coverage from revenues.

From the data in *Table 4.I.12*, we can calculate expenditures and employment on a per acre or per visitor basis. In *Table 4.I.13*, expenditures per acre and per visitor are reported. As the table shows, Kentucky's expenditures are much higher than any other state or the national average. While expenditures per acre may not be adequate reflection of the costs of maintaining a park or providing services to visitors, certainly the number of visitors to a park must influence costs. In 2002 Kentucky spent \$15 per visitor, compared to a national average of \$6.50.

Table 4.I.14 reports on employment per acre and employment per visitor. Again, focusing on the number of visitors, Kentucky employs .21 workers per 1,000 visitors. In contrast, the national average is .05 workers --- only 25% of the rate of employment for Kentucky.

Undoubtedly high employment and expenditures per acre and per visitor can be explained in part by some very unique attributes of Kentucky parks, most notably state resort parks with lodging and dining within the park. However, other states receive the same relative return (revenues as a percentage of operating expenses) at a much lower cost than Kentucky.

Table 4.I.1: State Expenditures on Natural Resources, Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	82	62	69	1	2	2	-1.7
United States	51	52	58	4	4	3	1.3
Illinois	29	24	34	8	8	7	1.7
Indiana	30	32	46	7	6	5	4.1
Missouri	52	54	46	3	3	4	-1.2
Ohio	27	30	32	9	7	8	1.7
Tennessee	40	35	39	5	5	6	-0.1
Virginia	33	24	25	6	9	9	-2.7
West Virginia	74	89	96	2	1	1	2.7

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.2: State and Local Expenditures on Natural Resources, Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	83	68	74	1	3	3	-1.1
United States	67	71	76	3	2	2	1.4
Illinois	31	30	51	8	8	5	5.0
Indiana	41	40	58	6	5	4	3.6
Missouri	55	55	49	4	4	6	-1.2
Ohio	31	34	37	9	7	8	1.9
Tennessee	43	38	43	5	6	7	-0.2
Virginia	40	29	30	7	9	9	-2.8
West Virginia	79	95	99	2	1	1	2.3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.3: State Employment in Natural Resources per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.00	0.91	0.93	2	2	2	-0.65
United States	0.58	0.57	0.53	4	5	4	-0.85
Illinois	0.29	0.33	0.33	9	9	9	1.48
Indiana	0.48	0.60	0.48	7	4	6	0.06
Missouri	0.49	0.52	0.47	6	6	7	-0.33
Ohio	0.35	0.34	0.34	8	8	8	-0.16
Tennessee	0.71	0.65	0.58	3	3	3	-1.98
Virginia	0.53	0.45	0.50	5	7	5	-0.41
West Virginia	1.00	1.05	1.28	1	1	1	2.48

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.4: State and Local Employment in Natural Resources per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.03	0.95	0.98	2	2	2	-0.55
United States	0.71	0.69	0.66	4	4	3	-0.71
Illinois	0.34	0.41	0.44	9	9	8	2.60
Indiana	0.59	0.72	0.57	5	3	5	-0.45
Missouri	0.54	0.56	0.50	7	6	7	-0.62
Ohio	0.43	0.42	0.43	8	8	9	-0.01
Tennessee	0.76	0.69	0.62	3	5	4	-2.11
Virginia	0.58	0.50	0.55	6	7	6	-0.56
West Virginia	1.04	1.11	1.35	1	1	1	2.64

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.5: State Salaries for Natural Resources, Indexed and Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2862	3266	2876	4	3	2	0.05
United States	2842	3153	2746	6	5	4	-0.34
Illinois	3000	2807	2482	1	8	9	-1.88
Indiana	2976	2544	2574	2	9	6	-1.44
Missouri	2598	2850	2591	8	7	5	-0.02
Ohio	2912	3329	2828	3	2	3	-0.29
Tennessee	2596	2917	2571	9	6	7	-0.10
Virginia	2672	3336	2543	7	1	8	-0.49
West Virginia	2853	3218	3007	5	4	1	0.53

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.6: State Salaries for Natural Resources, Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2,047	2,377	2,876	7	5	5	3.46
United States	2,408	2,729	3,313	2	3	1	3.24
Illinois	2,740	2,620	3,230	1	4	2	1.66
Indiana	2,295	2,014	2,726	4	9	8	1.74
Missouri	2,001	2,237	2,799	8	8	7	3.41
Ohio	2,367	2,770	3,135	3	2	3	2.85
Tennessee	1,937	2,238	2,698	9	7	9	3.37
Virginia	2,180	2,794	3,111	5	1	4	3.62
West Virginia	2,069	2,364	2,803	6	6	6	3.08

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.7: State Expenditures on Parks and Recreation, Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	37	30	30	1	1	2	-1.9
United States	14	15	17	3	4	5	2.3
Illinois	10	9	23	5	6	3	8.7
Indiana	6	10	7	8	5	9	2.4
Missouri	8	8	9	7	8	7	0.7
Ohio	5	8	8	9	9	8	5.4
Tennessee	13	20	18	4	3	4	3.0
Virginia	9	8	10	6	7	6	1.2
West Virginia	28	29	38	2	2	1	3.2

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.8: State and Local Expenditures on Parks and Recreation, Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	58	54	63	7	9	8	0.9
United States	80	88	105	2	3	2	2.7
Illinois	135	144	201	1	1	1	4.0
Indiana	41	67	77	9	6	5	6.5
Missouri	65	69	76	5	5	7	1.6
Ohio	59	64	91	6	7	3	4.4
Tennessee	66	92	76	3	2	6	1.4
Virginia	65	73	87	4	4	4	3.0
West Virginia	45	54	63	8	8	9	3.4

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.9: State Employment in Parks and Recreation per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.60	0.39	0.40	1	1	1	-3.87
United States	0.14	0.13	0.13	4	4	4	-1.07
Illinois	0.06	0.06	0.06	8	8	8	0.18
Indiana	0.02	0.02	0.02	9	9	9	1.46
Missouri	0.13	0.10	0.11	5	6	6	-1.94
Ohio	0.07	0.06	0.06	7	7	7	-1.12
Tennessee	0.22	0.20	0.17	3	3	3	-2.71
Virginia	0.12	0.11	0.12	6	5	5	0.09
West Virginia	0.52	0.31	0.32	2	2	2	-4.64

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.1.10: State and Local Employment in Parks and Recreation per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.96	0.70	0.77	4	8	7	-2.26
United States	0.89	0.87	0.91	5	4	3	0.22
Illinois	1.44	1.31	1.37	1	1	1	-0.52
Indiana	0.58	0.55	0.58	9	9	9	-0.06
Missouri	0.73	0.76	0.88	7	6	4	1.97
Ohio	0.72	0.74	0.83	8	7	5	1.54
Tennessee	0.85	0.94	0.82	6	3	6	-0.29
Virginia	0.99	1.03	1.15	3	2	2	1.58
West Virginia	1.09	0.76	0.73	2	5	8	-3.91

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.1.11: State Salaries for Parks and Recreation, Indexed and Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1723	2255	2057	8	7	7	1.79
United States	2312	2528	2243	3	4	4	-0.30
Illinois	2705	3031	2517	2	2	2	-0.72
Indiana	2141	2504	2207	5	5	5	0.31
Missouri	1895	2577	2278	7	3	3	1.86
Ohio	2778	3380	2945	1	1	1	0.59
Tennessee	1897	2177	1756	6	8	9	-0.77
Virginia	2171	2443	2088	4	6	6	-0.39
West Virginia	1523	1786	1840	9	9	8	1.91

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.12: State Park Acreage, Visitors, Revenues, Employment and Expenditures (2002)

State	Acreage (1,000)	Visitors (1,000)	Revenues	Revenues as % of Operating Expenses	Employment	Expenditure (1,000)
Kentucky	44	7,873	55,457	66.6	1645	123,003
United States	13,126	758,216	24,095	35.4	36211	4,952,534
Illinois	306	43,623	6,988	12.6	761	287,795
Indiana	179	16,879	33,514	78.7	127	43,032
Missouri	139	17,760	4,555	15.1	629	48,557
Ohio	205	57,246	29,030	44.4	720	91,000
Tennessee	144	26,275	31,824	49.6	963	102,693
Virginia	62	6,856	5,207	28.8	891	74,337
West Virginia	196	7,318	19,214	63.3	579	68,248

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.13: State Park Expenditures per Acre and per Visitor, 2002

	Expenditures per Acre		Expenditures per Visitor	
	\$2002	Rank	\$2002	Rank
Kentucky	2796	1	15.6	1
United States	377	6	6.5	5
Illinois	941	3	6.6	4
Indiana	240	9	2.5	8
Missouri	349	7	2.7	7
Ohio	444	5	1.6	9
Tennessee	713	4	3.9	6
Virginia	1199	2	10.8	2
West Virginia	348	8	9.3	3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.I.14: State Park Employment per Acre and per Visitor, 2002

	Employment per 1,000 Acres		Employment per 1,000 Visitors	
		Rank		Rank
Kentucky	37.39	1	0.21	1
United States	2.76	7	0.05	4
Illinois	2.49	8	0.02	7
Indiana	0.71	9	0.01	9
Missouri	4.53	4	0.04	6
Ohio	3.51	5	0.01	8
Tennessee	6.69	3	0.04	5
Virginia	14.37	2	0.13	2
West Virginia	2.95	6	0.08	3

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Figure 4.I.1: State and Local Expenditures on Natural Resources per Capita, Selected Years

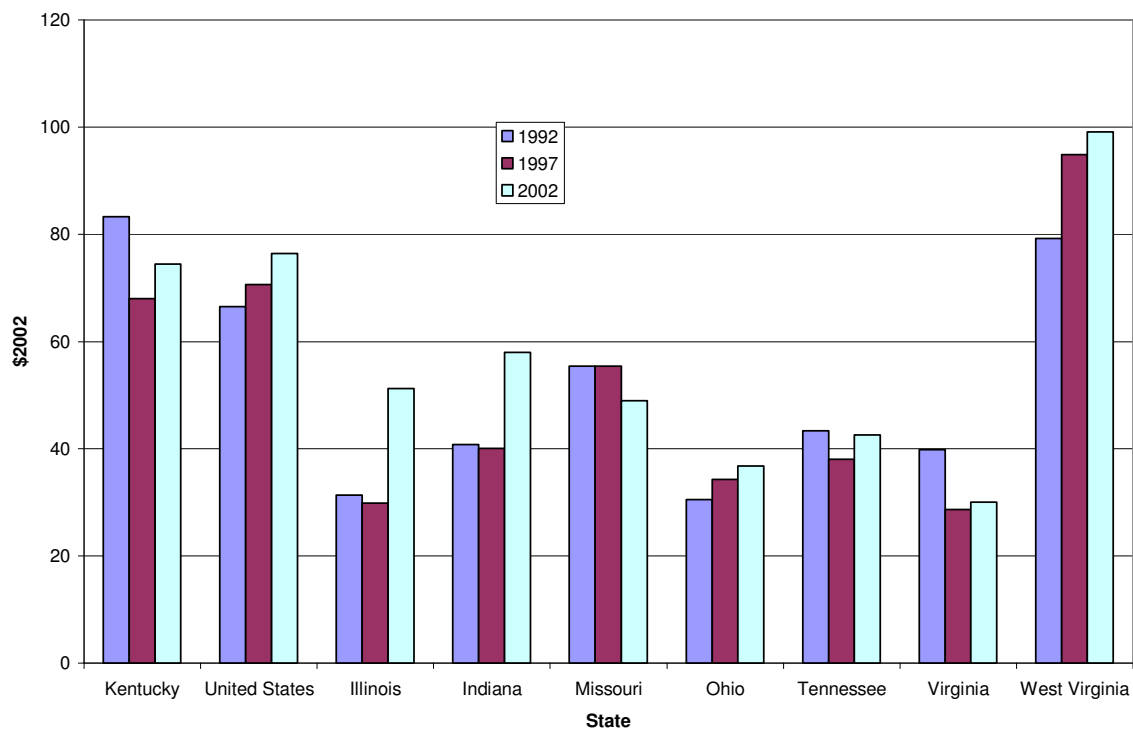


Figure 4.I.2: State and Local Employment in Natural Resources per 1,000 Residents, Selected Years

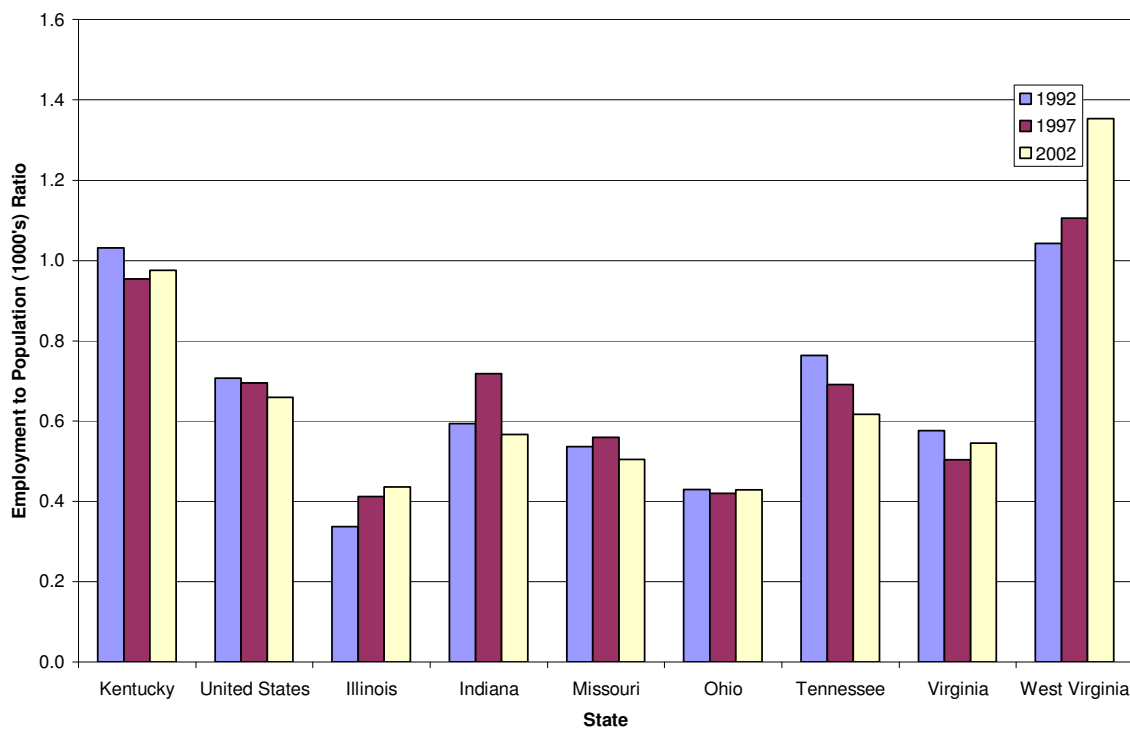


Figure 4.I.3: Salaries, Average for Natural Resources, Indexed and Adjusted for Inflation

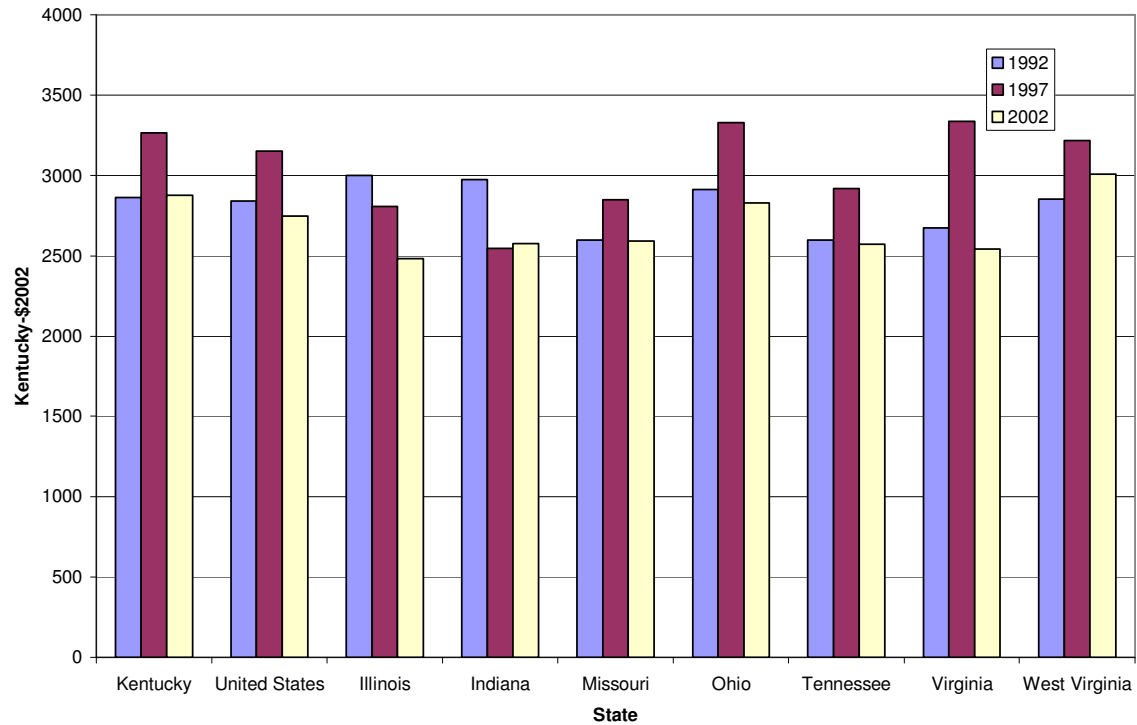


Figure 4.I.4: State and Local Expenditures on Parks and Recreation per Capita, Selected Years

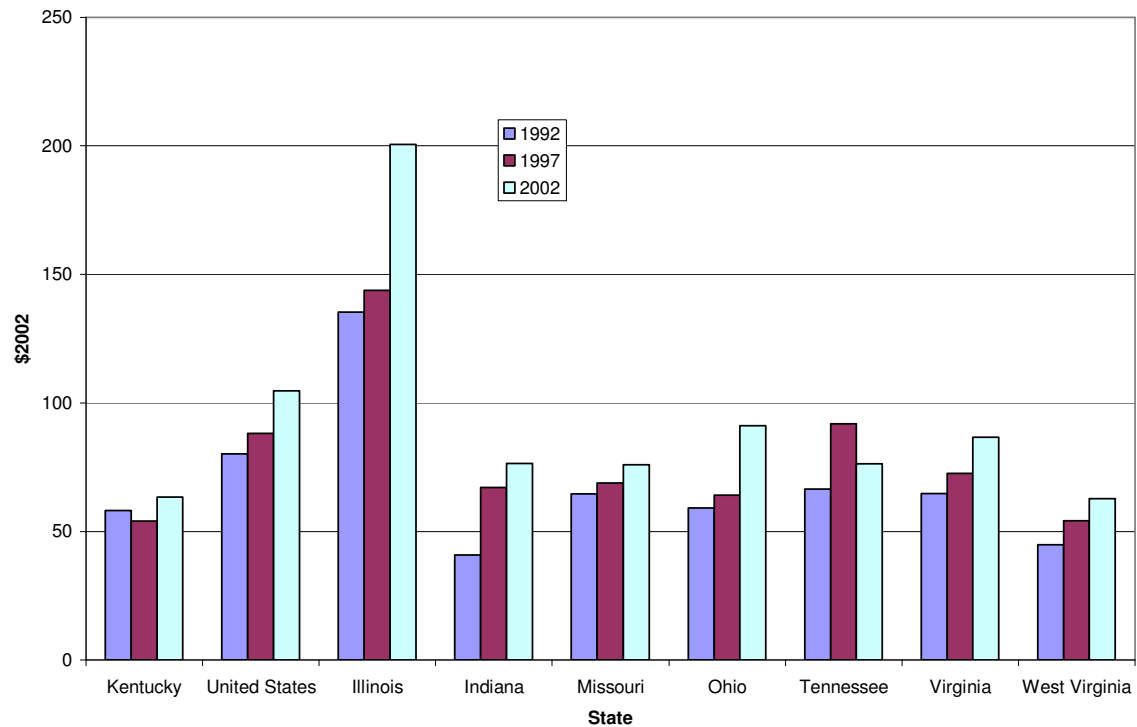


Figure 4.I.5: State and Local Employment in Parks and Recreation per 1,000 Residents, Selected Years

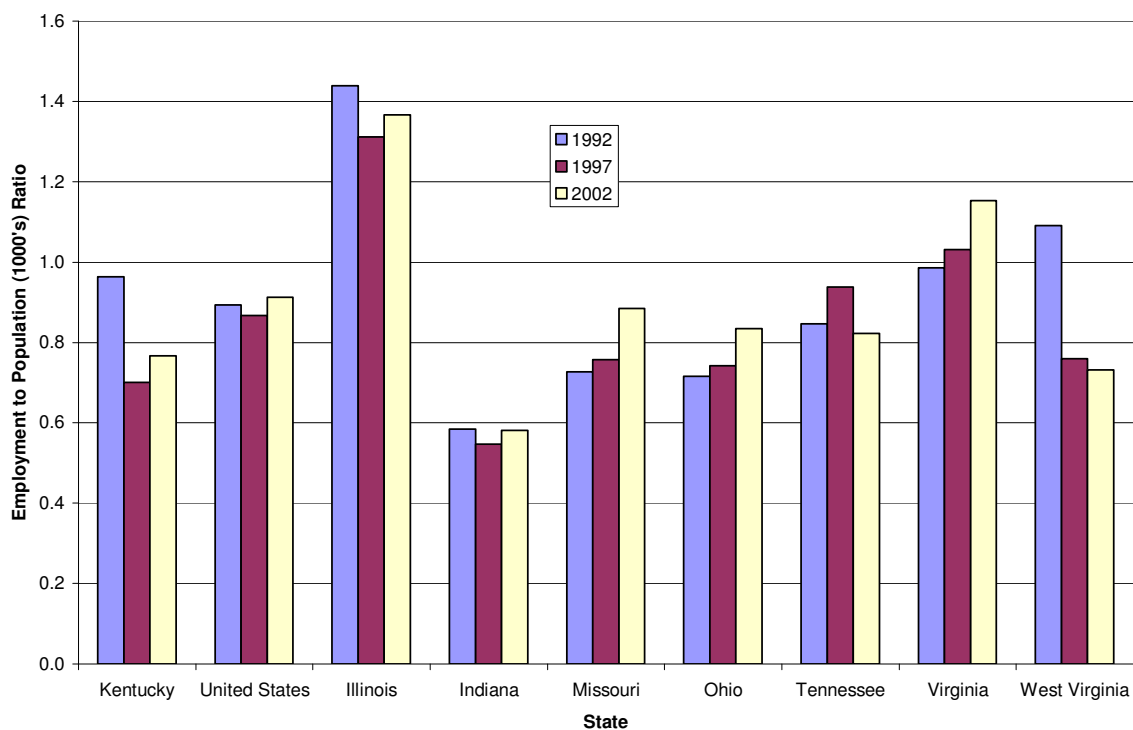
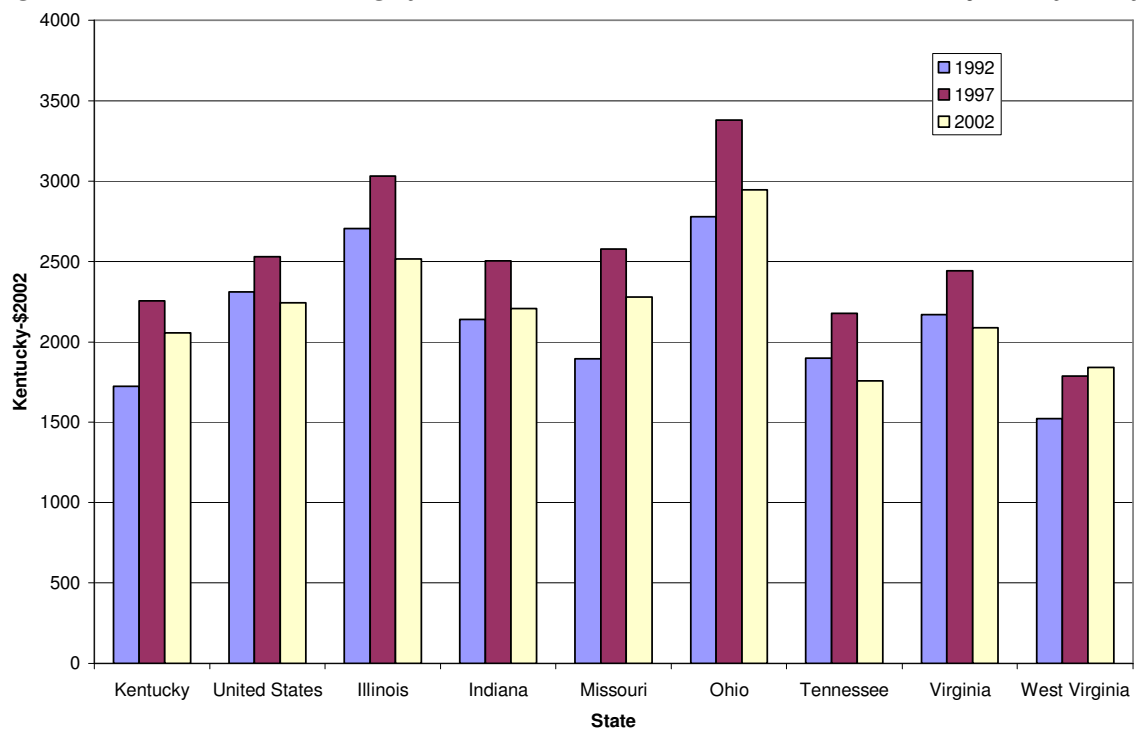


Figure 4.I.6: Salaries, Average for Parks and Recreation, Indexed and Adjusted for Inflation



4.J Police Protection

While in most states, the overwhelming share of police expenditures is at the local or municipal level (for the U.S. 14.6% of expenditures were by states in 2002), in 2002, 30% of police expenditures in Kentucky were by the state (*Table 4.J.1*). Not surprisingly, then, per capita spending on police protection was higher than any of its neighbors or the U.S. average from 1992 to 2002. In 2002, per capita state spending on police protection was \$40 in Kentucky versus \$33 for the U.S. average. The highest per capita spending of the neighboring states was \$31 in Indiana. Real spending per capita has been increasing at a 2.4% per annum rate from 1992 to 2002 in Kentucky. While high compared to spending in government functions, a number of states increased real spending at a rate above 4% and the average rate in the U.S. was 2.8%.

However, when combined state and local spending is considered, Kentucky's ranking is reversed – only West Virginia had lower per capita spending on state and local police protection (*Table 4.J.2* and *Figure 4.J.1*). In 2002, Kentucky spent \$133 per capita compared to the U.S. average of \$224.

Tables 4.J.3-4.J.6 report on employment per 1,000 residents. In addition to reporting as state and combined state and local employment, we also report on employment of police officers and employment of other staff. The employment figures mirror expenditure figures. Kentucky has the highest number of state police officers per 1,000 residents (*Table 4.J.3*) but the second lowest number of state and local officers (*Table 4.J.4* and *Figure 4.J.2*). While there was very slow growth in state police from 1992 to 2002 (0.20%), growth of state and local officers was relatively high, approximately 2%. While the rankings of employment of other police protection staff are the same as they are for officers, the trends in growth are significantly different. State police staff other than officers have been increasing at an annual rate of 3.69% from 1992 to 2002 (compared to growth in officers of 0.2%) as shown in *Table 4.J.5*. Growth in state and local police staff other than officers in Kentucky was not as high but still almost 3% (*Table 4.J.6*).

While the relative rankings of officers and other staff in employment at the state level might indicate high administrative costs, another interpretation might be that in Kentucky, officers perform little administrative work and primarily are in the field. Based on data from the U.S. Department of Justice Bureau of Justice Statistics this appears to be the case as shown in *Table 4.J.7*. Only 3.4% of Kentucky state police are primarily assigned to administrative functions, the second lowest to the 1.1% in Tennessee. Given that most officers in Kentucky are in field operations that only 57% of officers responded to calls in 1999 is surprising.

Tables 4.J.8 – 4.J.11 provide salary information. Again we report salaries only adjusted for inflation (*Tables 4.J.8* and *4.J.10*) and salaries also indexed for differences in local wages (*Tables 4.J.9* and *4.J.11*). The data in these four tables suggests significant differences in comparative compensation of officers and non-officer personnel. In *Table 4.J.8*, the salaries of police officers adjusted for inflation are reported. From 1992 to 2002 been at or near the bottom in terms of compensation. The average 2002 monthly salary of \$3,683 was nearly \$900 below the U.S. average. Real earnings did increase for officers during this time period but only at a .21% rate. When adjusted for the lower average earnings in Kentucky, the ranking of Kentucky salaries increases and the gap with the U.S. average drops to less than \$100 (*Table 4.J.9*). However, real earnings actually decrease, meaning that the increase in average earnings for all employment in Kentucky was higher than that of police officers.

Table 4.J.10 gives salaries for other state police staff adjusted for inflation and *Table 4.J.11* gives the salaries when also adjusted for state wage differences. In contrast to officers, staff salaries are relatively high in nominal terms and the highest of any of the comparison states when adjusted for inflation. Real salaries also increased at a relatively high rate of 1.67% per annum in Kentucky from 1992 to 2002.

Measuring the output of police protection is, as with many other government functions, difficult. In *Table 4.J.12* we report crime rates (per 100,000) not adjusting for the type of crime.¹⁰ Kentucky's rate is the second lowest with only West Virginia have a lower rate. Given the data on population and expenditures also reported in *Table 4.J.12*, we calculate expenditures per reported crime. This figure, we admit, may not be a good measure of the cost or certainly the effectiveness of police protection. In fact, it might be argued that a high expenditures per crime might suggest more effective police protection because reductions in criminal activity given a fixed budget will increase expenditures per reported crime. Given these caveats this measure might provide some insights into relative costs of protection. In 2002, expenditures per crime in Kentucky were \$4.52 well below the U.S. average of \$5.39 and several other states as well. This is despite having a low crime rate, a factor that would, by itself, increase the cost per crime.

¹⁰ From the *Statistics Abstract of the United States, 2003*, p. 200, Table no. 307.

Table 4.J.1: State Expenditures on Police Protection, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	31	32	40	1	1	1	2.4
United States	25	28	33	3	3	2	2.8
Illinois	24	27	29	4	5	6	1.8
Indiana	20	29	31	5	2	4	4.5
Missouri	18	25	30	6	7	5	5.2
Ohio	17	19	20	7	8	9	1.6
Tennessee	16	19	22	9	9	8	3.1
Virginia	27	27	32	2	4	3	1.8
West Virginia	17	25	26	8	6	7	4.5

Source: Unless otherwise noted, all data is from the U.S. Census Bureau Division of Governments *Annual Survey of Government Finances and Employment*.

Table 4.J.2: State and Local Expenditures on Police Protection, Selected Years

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	104	114	133	7	8	8	2.5
United States	176	203	224	2	2	2	2.5
Illinois	192	227	256	1	1	1	2.9
Indiana	99	125	145	8	7	7	4.0
Missouri	133	160	180	5	5	5	3.1
Ohio	157	183	212	3	3	3	3.0
Tennessee	122	159	169	6	6	6	3.3
Virginia	150	166	180	4	4	4	1.8
West Virginia	67	87	104	9	9	9	4.5

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.3: State Employment in Police Protection (Officers) per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.25	0.25	0.25	3	3	2	0.20
United States	0.22	0.21	0.22	4	6	4	0.21
Illinois	0.20	0.18	0.19	5	7	8	-0.46
Indiana	0.19	0.21	0.21	6	5	6	0.70
Missouri	0.18	0.22	0.20	8	4	7	1.09
Ohio	0.11	0.12	0.13	9	9	9	0.97
Tennessee	0.19	0.18	0.21	7	8	5	0.99
Virginia	0.25	0.26	0.25	2	2	3	-0.15
West Virginia	0.29	0.34	0.34	1	1	1	1.50

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.4: State and Local Employment in Police Protection (Officers) per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.39	1.56	1.69	8	8	8	1.99
United States	2.05	2.27	2.30	2	2	2	1.15
Illinois	2.51	2.73	2.77	1	1	1	0.98
Indiana	1.66	1.83	1.88	7	7	7	1.25
Missouri	1.84	2.20	2.27	5	4	3	2.09
Ohio	1.68	2.01	2.21	6	6	5	2.79
Tennessee	1.86	2.21	2.26	4	3	4	2.01
Virginia	1.87	2.03	2.05	3	5	6	0.94
West Virginia	1.23	1.53	1.57	9	9	9	2.48

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.5: State Employment in Police Protection (Other) per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.21	0.22	0.30	1	1	1	3.69
United States	0.12	0.14	0.14	6	6	5	1.65
Illinois	0.13	0.16	0.15	4	4	4	1.64
Indiana	0.13	0.13	0.12	5	7	7	-0.15
Missouri	0.19	0.20	0.19	2	2	3	0.02
Ohio	0.09	0.10	0.11	9	8	8	1.49
Tennessee	0.12	0.15	0.13	7	5	6	0.85
Virginia	0.12	0.10	0.11	8	9	9	-0.98
West Virginia	0.16	0.18	0.19	3	3	2	2.06

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.6: State and Local Employment in Police Protection (Other) per 1,000 Residents, Selected Years

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	0.49	0.57	0.66	8	8	7	2.97
United States	0.68	0.74	0.79	3	3	3	1.46
Illinois	0.83	0.91	0.81	1	1	2	-0.23
Indiana	0.60	0.66	0.71	5	5	6	1.57
Missouri	0.82	0.91	0.92	2	2	1	1.20
Ohio	0.65	0.66	0.74	4	6	5	1.26
Tennessee	0.60	0.67	0.77	6	4	4	2.53
Virginia	0.53	0.58	0.61	7	7	8	1.42
West Virginia	0.35	0.40	0.43	9	9	9	2.14

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.7: Primary Function of State Police Officers (Administrative, Field, Technical) and Percentage of Officers Responding to Calls for Service, 1999¹

Agency Name	Administration	Field Operations	Technical Support	1999 Percent
Kentucky State Police	3.40	90.50	6.10	57
Illinois State Police	5.20	94.80	0.00	69
Indiana State Police	10.10	89.90	0.00	57
Missouri State Highway Patrol	8.30	67.00	24.70	67
Ohio State Highway Patrol	12.50	87.50	0.00	87
Tennessee Department Of Safety	5.50	94.50	0.00	94
Virginia State Police	1.10	98.90	0.00	53
West Virginia State Police	8.30	91.70	0.00	75

Source: U.S. Department of Justice, Bureau of Justice Statistics, <http://www.ojp.usdoj.gov/bjs/welcome.html>.

Table 4.J.8: State Salaries for Police Protection (Officers), Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3,608	3,561	3,683	7	9	7	0.21
United States	4,212	4,144	4,541	3	4	3	0.76
Illinois	4,677	4,859	4,938	2	2	1	0.54
Indiana	3,416	4,300	4,006	9	3	5	1.61
Missouri	3,932	3,616	3,609	4	7	9	-0.85
Ohio	4,716	4,882	4,590	1	1	2	-0.27
Tennessee	3,512	3,621	3,610	8	6	8	0.27
Virginia	3,838	3,780	4,289	5	5	4	1.12
West Virginia	3,645	3,580	3,732	6	8	6	0.24

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.9: State Salaries for Police Protection (Officers), Indexed and Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	3847	4267	3683	4	4	6	-0.43
United States	3791	4176	3764	6	6	5	-0.07
Illinois	3905	4542	3795	2	3	3	-0.29
Indiana	3378	4739	3784	9	2	4	1.14
Missouri	3892	4020	3342	3	8	9	-1.51
Ohio	4424	5118	4140	1	1	1	-0.66
Tennessee	3589	4117	3441	7	7	8	-0.42
Virginia	3587	3938	3507	8	9	7	-0.23
West Virginia	3832	4251	4003	5	5	2	0.44

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.10: State Salaries for Police Protection (Other), Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2,591	2,609	3,058	4	4	3	1.67
United States	2,967	3,296	3,438	2	2	2	1.48
Illinois	3,435	3,628	3,926	1	1	1	1.35
Indiana	2,367	2,353	2,640	7	8	6	1.10
Missouri	2,559	2,552	2,340	5	6	8	-0.89
Ohio	2,802	3,180	3,010	3	3	4	0.72
Tennessee	2,220	2,381	2,417	8	7	7	0.85
Virginia	2,469	2,601	2,881	6	5	5	1.56
West Virginia	1,751	1,906	2,007	9	9	9	1.37

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.11: State Salaries for Police Protection (Other), Indexed and Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2762	3127	3058	2	4	1	1.02
United States	2670	3322	2850	3	3	3	0.65
Illinois	2868	3391	3018	1	1	2	0.51
Indiana	2341	2593	2494	6	8	5	0.63
Missouri	2532	2837	2167	5	5	8	-1.55
Ohio	2629	3334	2715	4	2	4	0.32
Tennessee	2269	2707	2304	8	7	7	0.16
Virginia	2307	2710	2356	7	6	6	0.21
West Virginia	1841	2263	2153	9	9	9	1.58

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Table 4.J.12: Crime Rates, Expenditures, and Expenditures per Crime, 2002

State	Population (1,000)	Crime Rate (per 100,000)	State (\$1,000)	Local (\$1,000)	Combined	Expenditures per Reported Crime
Kentucky	4,090	2938	163,317	379,398	542,715	4.52
United States	287,405	4161	9,407,598	55,084,296	64,491,894	5.39
Illinois	12,586	4098	359,209	2,866,822	3,226,031	6.25
Indiana	6,157	3831	193,527	701,845	895,372	3.80
Missouri	5,670	4776	172,082	845,802	1,017,884	3.76
Ohio	11,409	4178	233,180	2,180,449	2,413,629	5.06
Tennessee	5,790	5153	125,377	851,166	976,543	3.27
Virginia	7,288	3178	231,914	1,077,430	1,309,344	5.65
West Virginia	1,805	2560	47,790	139,114	186,904	4.04

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Figure 4.J.1: State and Local Expenditures on Police Protection per Capita, Selected Years

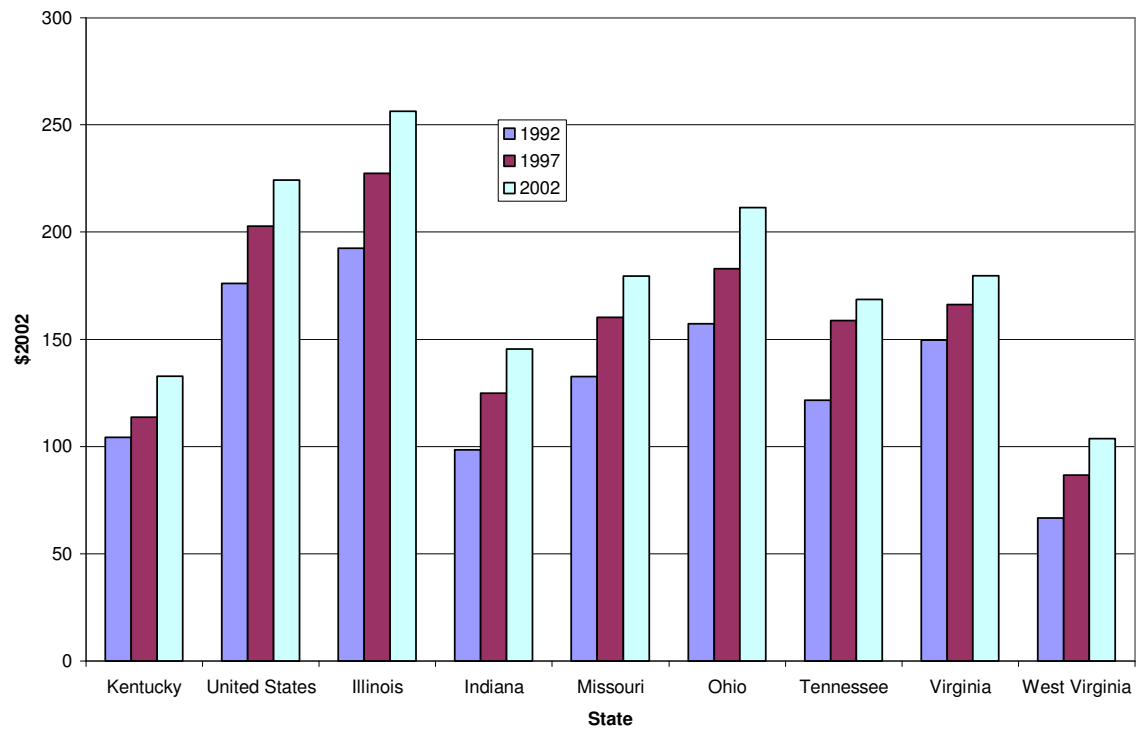


Figure 4.J.2: State and Local Employment in Police Protection (Officers) per 1,000 Residents, Selected Years

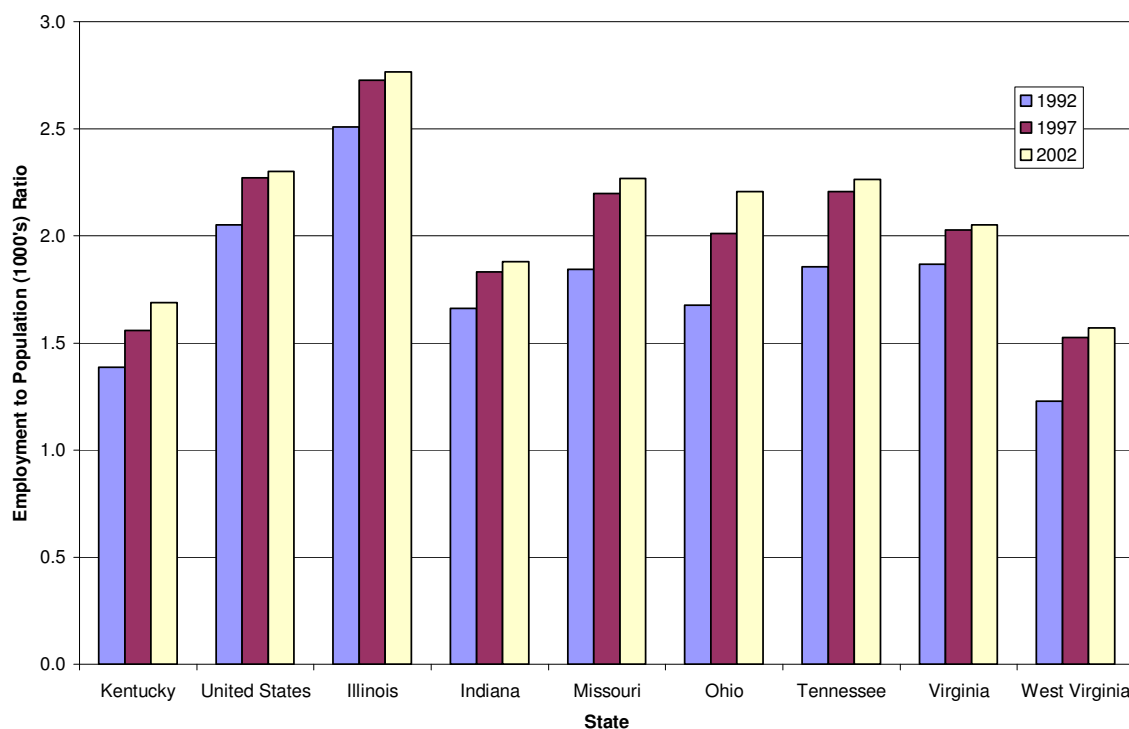
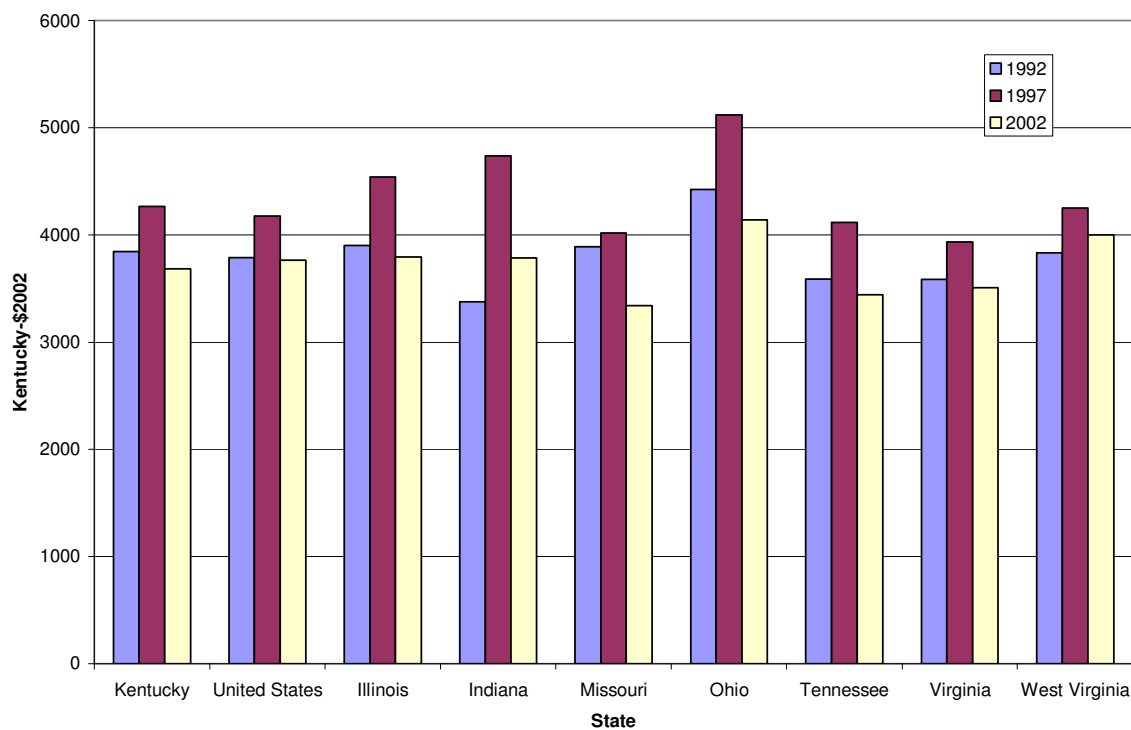


Figure 4.J.3: Salaries, Average for Police Protection (Officers), Indexed and Adjusted for Inflation



4.K Public Welfare

The category of public welfare broadly includes cash assistance programs and in-kind payments based on income or need. From the classification manual for the U.S. Census Bureau Division of Governments *Survey of Government Finances and Employment* public welfare expenditures include:

Direct payments to beneficiaries under the Federal categorical public assistance programs, Supplemental Security Income (SSI) and Temporary Assistance for Needy Families (TANF); and intergovernmental aid under the Federal Medicaid program.¹¹

and

Cash payments made directly to individuals contingent upon their need, other than those under Federal categorical assistance programs.

While the SSI is classified as a payment to be included in public welfare since it is almost entirely federally funded it is not reported with either state or local welfare funds. In addition to direct payments to recipients, vendor payments are also included. These are defined as

Payments under public welfare programs made directly to private vendors (i.e., individuals or nongovernmental organizations furnishing goods and services) for medical assistance and hospital or health care, including Medicaid (Title XIX), on behalf of low-income or other medically-needy persons unable to purchase such care.

and

Payments under public welfare programs made directly to private vendors (i.e., individuals or nongovernmental organizations furnishing goods and services) for services and commodities, other than medical, hospital, and health care, on behalf of low-income or other needy persons unable to purchase such goods and services.

Here we provide some data on expenditures, salaries, and employment for public welfare broadly defined. Since in almost all states, public welfare is primarily the responsibility of the state rather than local governments, we focus on state spending only. In addition to looking at aggregate public welfare expenditures we also examine expenditures and administrative costs for TANF as well.

Public welfare, unlike programs such as parks and recreation or police protection is a transfer program rather than a service. As such, high expenditures do not necessarily imply high costs of a program but instead may simply indicate high benefits for the recipients. This important distinction means that inferences about efficiency in providing public welfare based on per capita or per recipient costs could well be erroneous. Thus while we report measures of expenditures that include these transfer payments it should be understood that we do not mean to imply any inefficiency in provision associated with them. For TANF we do have measures of administrative costs, what we believe is a meaningful measure of cost of providing these services.

In *Table 4.K.1* we report public welfare spending per capita for the years 1992, 1997, and 2002 for Kentucky and its neighboring states. As would be expected based on the higher poverty

¹¹ See the classification manual for the *Survey of Government Finances and Employment*, <http://www.census.gov/govs/www/class.html>.

rates in Kentucky and West Virginia, per capita payments are highest in these two states. In 2002, payments per capita in Kentucky were \$1,164 compared to the U.S. average of \$835. From 1992 to 2002, per capita state welfare payments increased at an annual rate of 3.5%. Employment in public welfare services in Kentucky was also very high relative to other states with 1.74 public welfare employees per 1,000 compared to the U.S. average of 0.84 employees per 1,000 (*Table 4.K.2*).

Differences in public welfare spending would suggest differences in reciprocity rates and eligible populations. In *Table 4.K.3*, we report on total TANF recipients and the total Medicaid eligible population for 2000. Then using the population for 2000 we calculate a reciprocity rate for TANF and eligibility rate for Medicaid. The results are somewhat surprising – while states with high per capita public welfare expenditures have higher than average TANF reciprocity and Medicaid eligibility rates, the relationship is not as strong as might reasonably be expected. In both categories Kentucky ranks third following Tennessee in both categories, Missouri in TANF reciprocity, and West Virginia in Medicaid eligibility. Obviously other factors such as the benefit levels and other expenditures per recipient must explain some of the differences in per capita costs.

Table 4.K.4 reports average monthly salary for public welfare employees adjusted for inflation and indexed for differences in local earnings. Given this indexing, salaries in Kentucky (average of \$2,780 in 2002) are above the U.S. average (\$2,550 in 2002). However, if not indexed for differences in local wages Kentucky salaries would be significantly below the U.S. average.

Tables 4.K.5 and *4.K.6* provide some disaggregation of spending. *Table 4.K.5* reports on cash payments per capita. Note that Kentucky is quite low in this category ranking 7th with only 26 per capita compared to the average of \$37 in the U.S. As with the other states and the U.S. average there have been significant decreases in real spending during this time – for Kentucky an average annual real decrease of 16.4%. This is primarily attributable to the large reductions in TANF roles following the 1996 welfare legislation. In contrast, per capita vendor payments, payments not being made to individuals are extremely high in Kentucky (\$926 in 2002) compared the U.S. average (\$664). While many different expenditures comprise this category, Medicaid expenditures are a significant share of these costs and are probably a major driving force behind the high costs in Kentucky.

Table 4.K.7 reports on the trend in recipients for our set of states from 1996 to 2002. In all states there have been significant decreases in the number of recipients with the decrease in Kentucky (54.96) similar to the U.S. average (58.30).¹² *Table 4.K.8* reports the TANF average monthly assistance per family and recipient for 2000. As the table shows Kentucky has relatively low benefit levels (\$273.98 per family) compared to other states and the U.S. average (\$412.40).

Finally *Table 4.K.9* reports on administrative costs as a percentage of total costs. Kentucky's administrative costs, 13%, are significantly above the U.S. average of 9% though in line with several states including Virginia and Ohio. Interestingly, the smallest state in the group, West Virginia has among the lowest administrative costs. Also reported is the percentage of TANF applications approved. It is not immediately clear what this measure might suggest about performance and efficiency in the provision of TANF services. Of course, an application

¹² Data from the U.S. Department of Health and Human Services (2003). *Temporary Assistance for Needy Families Program (TANF). Fifth Annual Report to Congress*,

approval rate of 100% might raise concern but so should an extremely low rate as this suggests that those households that are legitimately eligible are not receiving benefits. Kentucky's approval rate of 53.2% in 2001 is somewhat below the U.S. average of 60.7 and below all but two of the states (Virginia and Tennessee).

Table 4.K.1: State Expenditures on Public Welfare, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	823	932	1,164	1	2	2	3.5
United States	642	713	835	6	5	6	2.7
Illinois	660	772	749	3	4	8	1.3
Indiana	533	567	780	8	8	7	3.9
Missouri	626	639	948	7	7	4	4.2
Ohio	656	704	852	5	6	5	2.7
Tennessee	659	780	1,091	4	3	3	5.2
Virginia	372	489	497	9	9	9	3.0
West Virginia	785	994	1,183	2	1	1	4.2

¹Source: U.S. Census Bureau Government Division *Annual Survey of Government Finances and Employment*, <http://www.census.gov/govs/www/index.html>.

Table 4.K.2: State Employment in Public Welfare per 1,000 Residents, Selected Years¹

	Per 1,000 Residents			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	1.32	1.20	1.74	1	2	2	2.85
United States	0.83	0.83	0.84	7	6	6	0.11
Illinois	1.08	1.11	1.17	4	3	4	0.75
Indiana	0.95	0.88	0.84	5	4	7	-1.25
Missouri	1.31	1.39	1.49	2	1	3	1.30
Ohio	0.19	0.20	0.24	9	8	9	2.04
Tennessee	0.94	0.85	0.96	6	5	5	0.26
Virginia	0.38	0.30	0.30	8	7	8	-2.35
West Virginia	1.25	0.04	1.78	3	9	1	3.59

¹Source: U.S. Census Bureau Government Division *Annual Survey of Government Finances and Employment*, <http://www.census.gov/govs/www/index.html>.

Table 4.K.3: TANF Recipients and Medical Eligible Population, 2000¹

				TANF Reciprocity Rate		Medicaid Eligibility Rate	
	Population	TANF Recipients	Medicaid Eligible	per 1000	Rank	per 1000	Rank
Kentucky	4,042,000	88,747	724,500	22.0	3	179.2	3
United States	281,422,000	5,943,450	44,297,300	21.1	5	157.4	5
Illinois	12,419,000	254,238	1,736,200	20.5	6	139.8	6
Indiana	6,080,000	99,703	756,200	16.4	8	124.4	8
Missouri	5,595,000	124,763	991,400	22.3	2	177.2	4
Ohio	11,353,000	245,085	1,420,400	21.6	4	125.1	7
Tennessee	5,689,000	145,473	1,535,100	25.6	1	269.8	1
Virginia	7,079,000	72,573	681,300	10.3	9	96.2	9
West Virginia	1,808,000	32,257	354,300	17.8	7	196.0	2

¹Source: U.S. House of Representatives, Committee on Ways and Means, 2003 Green Book, <http://waysandmeans.house.gov>

Table 4.K.4: State Salaries for Public Welfare, Indexed and Adjusted for Inflation, Selected Years

	Monthly Salary			Rank			Annual % Change
	1992	1997	2002	1992	1997	2002	
Kentucky	2712	3111	2780	3	4	3	0.25
United States	2628	2933	2550	5	6	5	-0.30
Illinois	2652	3309	2917	4	2	2	0.96
Indiana	2152	2530	2247	7	7	8	0.43
Missouri	2033	2415	2066	9	8	9	0.16
Ohio	3344	4061	3651	1	1	1	0.88
Tennessee	2727	3084	2457	2	5	6	-1.04
Virginia	2572	3168	2681	6	3	4	0.42
West Virginia	2036	1804	2331	8	9	7	1.36

¹Source: U.S. Census Bureau Government Division Annual Survey of Government Finances and Employment, <http://www.census.gov/govs/www/index.html>

Table 4.K.5: State Expenditures on Cash Assistance Payments, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1997	2000	2002	1997	2000	2002	
Kentucky	63	34	26	5	7	7	-16.4
United States	56	43	37	7	6	6	-7.9
Illinois	87	53	45	2	5	5	-12.5
Indiana	2	5	1	9	9	9	-23.2
Missouri	61	61	64	6	2	1	0.8
Ohio	94	54	55	1	4	4	-10.1
Tennessee	71	56	58	4	3	2	-3.8
Virginia	82	84	17	3	1	8	-26.8
West Virginia	36	27	57	8	8	3	9.5

¹Source: U.S. Census Bureau Government Division *Annual Survey of Government Finances and Employment*, <http://www.census.gov/govs/www/index.html>

Table 4.K.6: State Expenditures on Vendor Payments, Selected Years¹

	Per Capita, \$2002			Rank			Annual % Change
	1997	2000	2002	1997	2000	2002	
Kentucky	737	828	926	2	2	2	4.7
United States	549	583	664	5	5	6	3.9
Illinois	483	450	459	7	8	8	-1.0
Indiana	479	521	610	8	7	7	4.9
Missouri	487	567	750	6	6	4	9.0
Ohio	553	607	742	4	4	5	6.0
Tennessee	583	700	869	3	3	3	8.3
Virginia	387	418	445	9	9	9	2.8
West Virginia	828	845	929	1	1	1	2.3

¹Source: U.S. Census Bureau Government Division *Annual Survey of Government Finances and Employment*, <http://www.census.gov/govs/www/index.html>

Table 4.K.7: Average Monthly TANF Recipients by State and Year¹

State	1996	1997	1998	1999	2000	2001	2002	Net Change, 1996-2002
Kentucky	174,882	157,807	126,845	99,138	88,747	81,809	78,764	-54.96
United States	12,644,915	10,935,125	8,790,149	7,187,658	5,943,450	5,419,603	5,272,453	-58.30
Illinois	655,396	580,324	506,580	368,249	254,238	182,673	146,699	-77.62
Indiana	147,995	120,179	114,406	108,301	99,703	115,543	134,929	-8.83
Missouri	231,891	196,937	155,376	131,861	124,763	131,364	121,979	-47.40
Ohio	545,918	497,429	366,439	275,501	245,085	199,352	194,702	-64.33
Tennessee	260,257	183,973	148,540	149,560	145,473	154,905	163,070	-37.34
Virginia	161,928	130,600	104,688	89,380	72,573	65,051	67,085	-58.57
West Virginia	95,085	82,746	53,796	31,762	32,257	39,039	42,934	-54.85

¹Source: U.S. Department of Health and Human Services (2003). *Temporary Assistance for Needy Families Program (TANF)*. Fifth annual report to Congress. Washington, DC
<http://www.acf.dhhs.gov/programs/ofa/indexar.htm>

Table 4.K.8: TANF, Average Monthly Assistance, 2002¹

	per Family		per Recipient	
	\$2,002	Rank	\$2,002	Rank
Kentucky	237.98	7	106.37	5
United States	412.4	1	163.94	1
Illinois	155.27	9	54.97	9
Indiana	268.58	4	95.33	6
Missouri	247.57	6	93.37	7
Ohio	323.19	3	140.75	2
Tennessee	170.39	8	65.25	8
Virginia	254.35	5	113.84	4
West Virginia	360.39	2	136.16	3

¹Source: U.S. Department of Health and Human Services (2003). *Temporary Assistance for Needy Families Program (TANF)*. Fifth annual report to Congress. Washington, DC
<http://www.acf.dhhs.gov/programs/ofa/indexar.htm>

Table 4.K.9: TANF Administrative Costs as Percentage of Total TANF Costs and Percentage of Applications Approved, 2001

	TANF, Administrative Costs (2001)		Applications Approved	
	% of Total Costs	Rank	%	Rank
Kentucky	13	1	53.2	7
United States	9	5	60.7	3
Illinois	4	8	55.5	6
Indiana	7	6	60.7	3
Missouri	4	8	58.4	5
Ohio	13	1	0.5	9
Tennessee	10	4	68.7	2
Virginia	13	1	49.0	8
West Virginia	5	7	84.8	1

¹Source: U.S. Census Bureau Governments Division Annual Survey of Government Finances for the relevant years (<http://www.census.gov/govs/www/financegen.html>).

Figure 4.K.a: State and Local Expenditures on Public Welfare per Capita, Selected Years

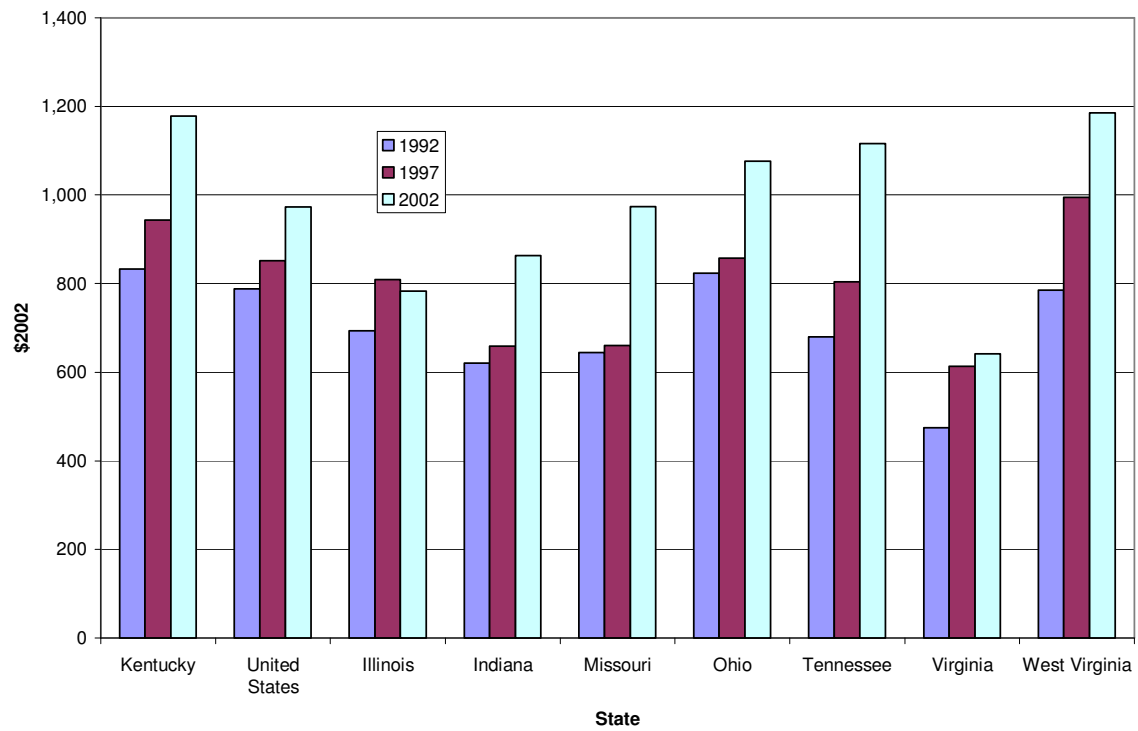


Figure 4.K.b: State and Local Employment in Public Welfare per 1,000 Residents, Selected Years

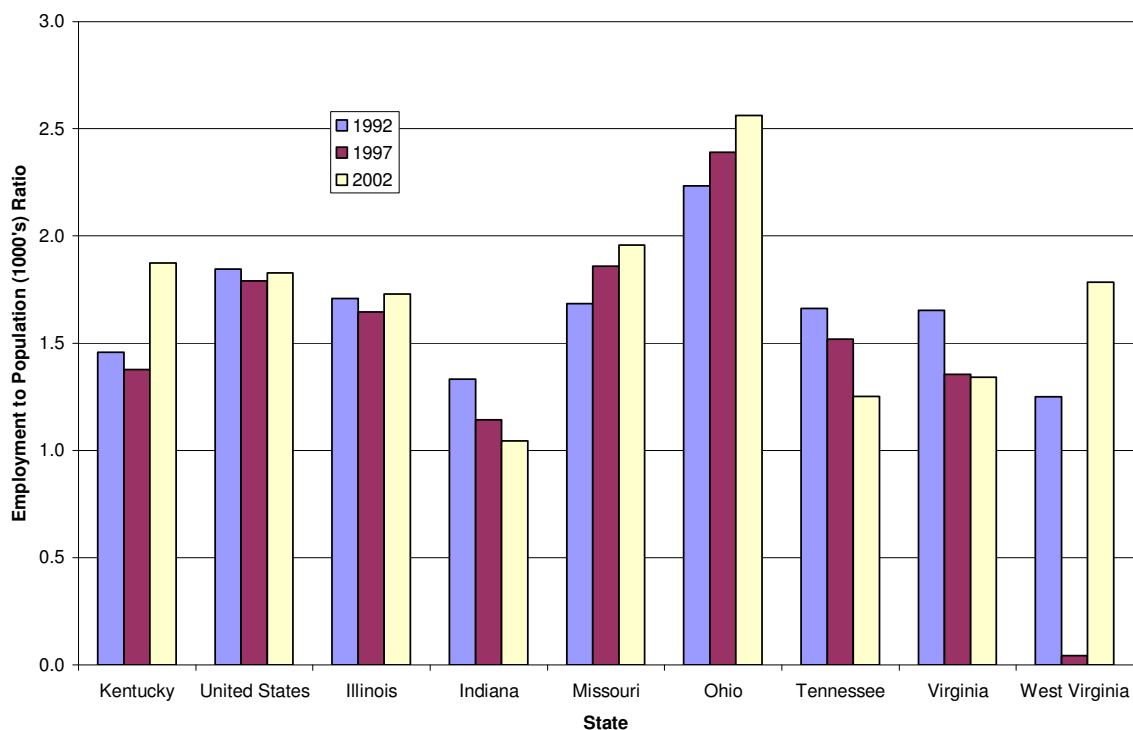
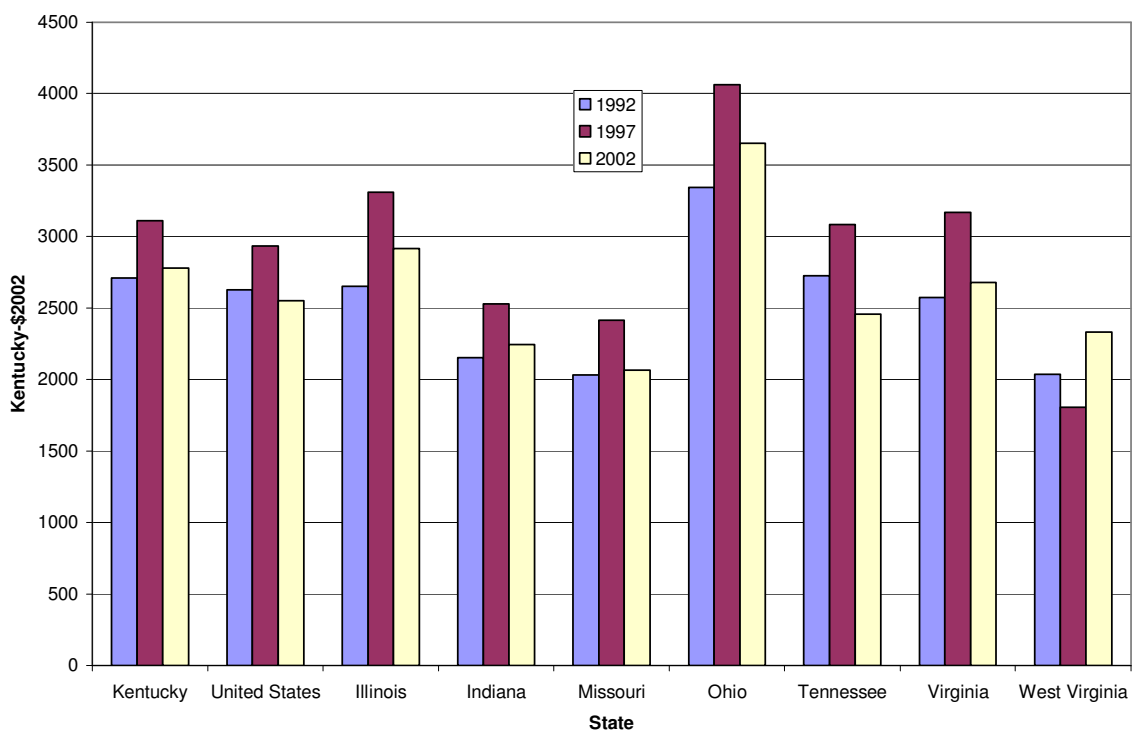


Figure 4.K.12: Salaries, Average for Public Welfare, Indexed and Adjusted for Inflation



Section 5. Performance Management and Benchmarking Practices in Use in Other States

5.1 What is Performance Management?

The measurement of costs presented in sections 3 and 4 of this report are a departure from the practices that are currently undertaken. These practices are frequently referred to as performance management or “best practices.” Since the introduction and implementation of the Baldrige Criteria (see *Baldrige National Quality Program* <http://www.quality.nist.gov/> for a description) a great deal has been written about how to implement performance management practices. In *Table 5.1* we provide a list of some organizations, primarily educational or not-for-profit institutions and think tanks that engage in research and publish on issues related to performance management. Also included in this list are links to the organizations and some of their relevant publications.

A useful summary of performance measurement practices is found in a recommendation of the Government Financial Officers Association (GFOA) Committee on Governmental Budgeting and Management from January, 2002, “Performance Management: Using Performance Measurement for Decision Making (2002) - Updated Performance Measures (1994).” We cite the recommendation of this committee in its entirety:

Background. A key responsibility of state and local governments is to develop and manage programs, services, and their related resources as efficiently and effectively as possible and to communicate the results of these efforts to the stakeholders. Performance measurement when linked to the budget and strategic planning process can assess accomplishments on an organization-wide basis. When used in the long-term planning and goal setting process and linked to the entity's mission, goals, and objectives, meaningful performance measurements assist government officials and citizens in identifying financial and program results, evaluating past resource decisions, and facilitating qualitative improvements in future decisions regarding resource allocation and service delivery.

Recommendation. The Government Finance Officers Association (GFOA) recommends that program and service performance measures be developed and used as an important component of long term strategic planning and decision making which should be linked to governmental budgeting. Performance measures should:

- be based on program goals and objectives that tie to a statement of program, mission or purpose;
- measure program outcomes;
- provide for resource allocation comparisons over time;
- measure efficiency and effectiveness for continuous improvement;
- be verifiable, understandable, and timely;
- be consistent throughout the strategic plan, budget, accounting and reporting systems and to the extent practical, be consistent over time;
- be reported internally and externally;
- be monitored and used in managerial decision-making processes;
- be limited to a number and degree of complexity that can provide an efficient and meaningful way to assess the effectiveness and efficiency of key programs; and
- be designed in such a way to motivate staff at all levels to contribute toward organizational improvement.

GFOA encourages all governments to utilize performance measures as an integral part of the budget process. Over time, performance measures should be used to report on the outputs and outcomes of each program and should be related to the mission, goals and objectives of each department. Governments in the early stages of incorporating performance measures into their budget process should strive to:

- develop a mission statement for government and its service delivery units by evaluating the needs of the community;

- develop its service delivery units in terms of programs;
- identify goals, short- and long-term, that contribute to the attainment of the mission;
- identify program goals and objectives that are specific in timeframe and measurable to accomplish goals;
- identify and track performance measures for a manageable number of services within programs;
- identify program inputs in the budgeting process that address the amount of resources allocated to each program;
- identify program outputs in the budgeting process that addresses the amount of service units produced;
- identify program efficiencies in the budgeting process that addresses the cost of providing a unit of service;
- identify the program outcomes in the budgeting process that addresses the extent to which the goals of the program have been accomplished;
- take steps to ensure that the entire organization is receptive to evaluation of performance;
- integrate performance measurements into the budget that at a minimum contains by program the goals and input, output, efficiency and outcome measures; and □ calculate costs and document changes that occur as a direct result of the performance management program in order to review the effectiveness of the performance management program.

As governments gain experience, they are encouraged to develop more detailed information and use a variety of performance measures to report on program outcomes. These measures should be linked to the goals of the programs and the missions and priorities of the organization. Governments should:

- ensure that the benefits of establishing and using performance measures exceed the resources required to establish performance measures;
- develop multiyear series of efficiency indicators to measure the efficiency of service delivery within programs;
- develop multiyear series of quality or outcome indicators to measure the effectiveness of service delivery (are accomplishments being met?) within programs;
- develop a mechanism to cost government services;
- analyze the implications of using particular measures for decision making and accountability;
- use customer or resident satisfaction surveys;
- adopt common definitions of key efficiency and effectiveness performance measures to allow intergovernmental comparisons;
- develop, measure, and monitor more detailed information within programs;
- develop common or improved approaches to utilization of financial and nonfinancial performance measures in making and evaluating decisions;
- use community condition measures to assess resident needs that may not be addressed by current programs;
- develop and periodically review supportable targets for each performance measure;
- evaluate the data to use in long term resource allocation and budget decisions for continuous improvement; and
- utilize performance information in resource allocation decisions and report the efficiency and effectiveness and the extent to which the program goals have been accomplished.

In the final analysis, GFOA recognizes that the value of any performance measurement program is derived through positive behavioral change. Stakeholders at all levels must embrace the concept of continuous improvement and be willing to be measured against objective expectations. GFOA urges governments to recognize that establishing a receptive climate for performance measurement is as important as the measurements themselves.¹³

More succinctly, the objectives and traits of effective performance management systems are summarized in a publication from the Kennedy School of Government “Visions of Govern-

¹³ The GFOA recommendation is available at <http://www.gfoa.org/services/rp/budget/budget-performance-management.pdf>

ance in the 21st Century” project, “Re: Get Results through Performance Management.”¹⁴,
Reasons for performance management are:

1. Goals motive.
2. Performance measures motivate.
3. Goals and performance measures communicate.
4. Performance measures lead to important insights.
5. Performance measurement and management strengthen democracy.

“Re: Get Results through Performance Management” goes on to offer ten traits that characterize effective performance management systems:

1. Outcome-Focused
2. Few, simple, resonant at the top.
3. Challenging, but realistic.
4. “Cascading down” and “folding back up”.
5. Broadly used.
6. Visible.
7. Interactive and informational.
8. Frequent and fresh.
9. Sementable.
10. Fact-based.

Critical to performance measurement is the ability of governments to be able to quantify the outcomes of their programs to determine effectiveness. A report done for the Commonwealth of Kentucky Legislative Research Commission by Greg Hager, Alice Hobson, and Ginny Wilson notes that in regard to performance measures that

[b]ased on their strategic plans, agencies should develop specific, systematic measures of outcomes that can be used to determine how well that agencies are meeting their objectives. Examples: student test scores for education programs, mortality rates for health programs.¹⁵

Hager et. al. also note that these are measures of outcomes, not inputs, and that measuring performance can often be difficult since the link between costs and performance may be tenuous.

¹⁴ This publication (power point presentation) is available at
http://www.ksg.harvard.edu/visions/performance_management/local_memo.pdf.

¹⁵ This report, , “Performance-Based Budgeting: Concepts and Example” Research Report No. 302 is available at
<http://lrc.ky.gov/lrcpubs/RR302.pdf>.

5.2 Performance Management Practices in State Government

In *Table 5.2* we list state agencies, with websites, directly or indirectly involved with performance management and best practices in budget management for Kentucky and its neighboring states. When available, agency publications related to performance management budget are also provided. *Table 5.3* lists state agencies with websites for the remaining states when available.¹⁶

While the extent that performance management and strategic planning is done and formalized among Kentucky's neighboring states varies, it is clear that Kentucky's neighbors are actively and, for some, aggressively attempting to implement models of performance management. Here we provide examples of some of the practices and procedures found in three states with developed strategic planning and performance management programs, Missouri, Indiana, and Virginia, that must be performed by agencies annually or bi-annually as part of their review process.

Missouri

The *Managing For Results* initiative in Missouri was created by executive order on January of 2001. Part of the initiative is the creation of guidelines for strategic planning for Missouri state agencies. The *Missouri Strategic Plan* (March 2002) lists these guidelines:¹⁷

- **Planning to Plan:** This first step represents the advance work necessary before the actual planning process can begin. In this step, each agency agrees internally on the overall strategic planning effort and on key planning steps to be undertaken.
- **Mandates:** Each agency is influenced by constitutional and/or legislative mandates. At an early stage in the process, agencies should review and evaluate the role and significance of these mandates as they pertain to day-to-day business and future activities.
- **State Leadership:** By identifying and promoting a vision for the state's future and outlining broad results important to Missouri citizens, state leadership provides critical guidance to agencies as they set their strategic priorities and direction.
- **Environmental Assessment (External and Internal):** External and internal assessment is an evaluation of key factors that influence the agency. Detailed evaluation of trends, conditions, opportunities and obstacles directs the development of each element of the strategic plan. This type of assessment may be quantitative or qualitative in nature.
- **Vision, Mission and Values:** Determining the agency vision, mission and values is critical to establishing the scope and direction of agency activities.
- **Key Outcomes/Measures:** Outcomes are end points or public benefits that are important to citizens and agencies and for which a level of success can be determined. Outcome measures are quantifiable information that indicates the degree to which the desired outcomes are being achieved.
- **Strategies:** Strategies explain how the agency's objectives will be accomplished. Allocation of resources (budgeting) and quantification of services and products (outputs) are tied to implementation of strategies.
- **Action Plans:** Action plans describe how strategies will be implemented and, specifically, who is responsible for doing what and when tasks will be completed.
- **Budget:** State agency planning and budgeting processes are linked in the "Program Decision Item Analysis - Form 5," which state agencies prepare for each item (core and new) in their annual budget requests.

¹⁶ An excellent source for many of the websites listed in *Tables 5.2* and *5.3* is the website for the *National Governors Association Center for Best Practices*, <http://www.nga.org/center/1,1188,,00.html>.

¹⁷ From *Missouri Strategic Planning Model and Guidelines* (March 2002), p.9-10, <http://www.mri.missouri.gov/sp/m&g.pdf>.

- **Legislation:** Legislation may result from an agency's strategic planning process, often providing authorization for needed programs or defining the scope of agency responsibility in addressing a critical issue. Legislation also can take the form of a new mandate, which must be assessed at the outset of the planning process and incorporated into an agency's plan.
- **Evaluation of Results:** Agencies evaluate their outcome and objective measures and strategies annually, or more frequently if data collection cycles permit, to track progress toward key outcomes and objectives. In the evaluation process, agencies assess the effectiveness and efficiency of their operations and make adjustments in strategic plans, use of resources, and operating procedures to improve results.

An example of the strategic planning process in Missouri for primary and secondary education is found in *Appendix 5.1*. Each agency is to list a **Key Outcome** that is measurable. The agency is then required to justify this outcome, provide comparisons with other states and discuss what works. The agency also lists a **Key Objective** that is also quantifiable and also provides trends and comparisons with other states as well. Note that while there is reference to external benchmarking, for most measures there is not an obvious comparison.

In *Appendix 5.2* the "Priority Results for Missourians" is provided as published on the Missouri *Managing for Results Initiative* website. Missouri has three broad priorities: to be a leader in education, developing a 21st century economy, and to be a "safe, healthy place to live and work". While by themselves these priorities may seem hard to measure, for each priority Missouri also has specific measurable "Success Predictors" such as "Teens not getting Pregnant" for education and the poverty rate for a safe, healthy place to live and work.

Virginia

Virginia's current *Managing for Results System* has been operational since 1995. It is comprised of four linked processes: strategic planning, performance measurement, program evaluation, and performance budgeting, and it is overseen by the Department of Planning and Budget. An overview from the website is provided in *Appendix 5.3*. Like Missouri, performance measurement is based on broad statewide indicators of quality of life presented in *Appendix 5.4*. While different from those used by Missouri, all are quantifiable and provide benchmarking opportunities with other states.

Virginia has an annual performance management scorecard for each agency. The criteria for the scorecard are based upon objectives in four areas: human resource management, government procurement, financial management, and technology. Within each of these areas are specific objectives on which the department is evaluated as either being below expectations, progress towards expectations, and meets expectations. A clear description is given for what constitutes the expectations for each of these objectives. This evaluation criteria is found in *Appendix 5.5* and a sample of the evaluation of (selected) departments is found in *Appendix 5.6*.

Appendix 5.7 provides a sample of the "Virginia Results Planning and Performance Report" for the Department of State Police. This report includes a brief mission statement, activities of the agency, customers, and performance measures. In the case of the Department of State Police, data on nine performance measures is included in the report.

Indiana

Unlike Missouri and Virginia, Indiana efforts at performance measurement are more integrated into the budget planning for the entire state budget. Only in the "Indiana Program Budget Book, 2003" are discussions of strategic planning or performance management found.

Indiana's measures of performance appear to be more specific to the agency and narrower in focus than those in Virginia or Missouri.

For the purposes of agency review each agency provides:

- Mission statement
- Summary of Activities
- External factors (that affect the accomplishment of agency mission)
- Evaluation and Accomplishments
- Plans for Biennium
- Special Initiatives

An example for what we assume to be a fictitious department (Ocean Safety) is found in *Appendix 5.8*

Table 5.1 Websites of Organizations providing Publications on Best Practices, Performance Management, and Baldrige Criteria

Baldrige National Quality Program <http://www.quality.nist.gov/>

The Council for Excellence in Government <http://www.excelgov.org/>

The Finance Project www.financeproject.org

Government Finance Officers Association <http://www.gfoa.org/>

“Recommended Budget Practices: A Framework For Improved State and Local Government Budgeting”
<http://www.gfoa.org/services/nacslb/>

Performance Management: Using Performance Measurement for Decision Making (2002) - Updated Performance Measures (1994) <http://www.gfoa.org/services/rp/budget/budget-performance-management.pdf>

The Government Performance Coalition <http://www.govresults.com/members.htm>

Harvard University, John F. Kennedy School of Government

“Visions of Governance in the 21st Century Project,” <http://www.ksg.harvard.edu/visions/>

Metzenbaum, Shelly H., Executive Session on Public Sector Performance Management “Public Sector Performance Management Principles,”
http://www.ksg.harvard.edu/visions/performance_management/managing_perf_present_10-11-01.pdf

Executive Session on Public Sector Performance Management, “Re: Get Results through Performance Management,” http://www.ksg.harvard.edu/visions/performance_management/local_memo.pdf

IBM Center for the Business of Government <http://www.businessofgovernment.org/>

Robert D. Behn, "Performance Leadership: 11 Better Practices That Can Ratchet Up Performance",
http://www.businessofgovernment.org/main/publications/grant_reports/details/index.asp?GID=209

National Governor’s Association Center for Best Practices <http://www.nga.org/center/1,1188,,00.html>

“Managing for Results” (listing of State Initiatives)
http://www.nga.org/center/divisions/1,1188,C_ISSUE_BRIEF%5ED_4096,00.html

Table 5.2 Websites Describing State Practices of or Studies Commissioned by Kentucky and Neighboring States

Kentucky

“Management Administrative Reporting System” MARS <http://www.state.ky.us/agencies/adm/mars/>

Commonwealth of Kentucky Legislative Research Commission, “Performance-Based Budgeting: Concepts and Example” Research Report No. 302, <http://lrc.ky.gov/lrcpubs/RR302.pdf>

Illinois

Executive Order Creating the Office of Statewide Performance Review 1999(7)
<http://www.state.il.us/Gov/pdf/execorder.pdf>

“Governing for Change Continuous Quality Improvements July 1, 1999 - December 31, 1999,” George H. Ryan, State of Illinois Office of Performance Review <http://www.state.il.us/gov/pdf/previewgovern.pdf>

Indiana

Indiana State Budget Agency, “Indiana Program Budget Book, 2003”
http://www.in.gov/sba/budget/2003_budget/as_passed/pdfs/Intro.pdf (Introduction)

Missouri

Missouri Managing for Results, <http://www.mri.missouri.gov>

“Missouri Strategic Planning Model and Guidelines (March 2002)” <http://www.mri.missouri.gov/sp/m&g.pdf>

Ohio

State of Ohio Office of Budget and Management “State Government Budget Book, 2003”
<http://www.obm.ohio.gov/businesscommunitypage/stategovbook.PDF>

Tennessee

“Enterprise Information Technology Plan, 2004,” <http://www.state.tn.us/finance/oir/strategic.pdf>

Department of Finance and Administration, Agency Strategic Plans,
<http://www.state.tn.us/finance/bud/planning/strategic.html>

Virginia

“Virginia Results” Virginia Department of Planning and Budget, <http://dpb.virginia.gov/VAResults/Index.cfm>

“Virginia Excels: Best Managed State Initiative”
<http://www.vaexcels.governor.virginia.gov/accomplishments/accomplishments-PBM.cfm>

Virginia State Government Planning and Performance Agency Planning and Performance
<http://dpb.virginia.gov/VAResults/PP/PublicSelect.cfm>

“Statewide Quality Of Life Indicators” <http://dpb.virginia.gov/VAResults/Societal/Societal.cfm>

Table 5.3: Websites Describing Practices of or Studies Commissioned by Other States

Alaska

Office of Management and Budget, Missions & Measures, <http://www.gov.state.ak.us/omb/results/explain.php>

Arizona

Office of Strategic Planning and Budgeting <http://www.ospb.state.az.us/default.htm>

“Managing for Results” <http://www.ospb.state.az.us/handbook.htm>

Arkansas

State Of Arkansas, “Performance Budgeting and Accountability System, Act 221 (2001) “Agency Strategic Plan” Development Guide Department of Finance & Administration, Office of Budget
http://www.state.ar.us/dfa/budget/strategic_planning_guide.pdf

California

“Strategic Planning Guidelines” California State Department Of Finance, Revised: May 1998

Colorado

“New Century Colorado” <http://www.state.co.us/ncc/default.asp>

Connecticut

“The Social State of Connecticut” Fordham Institute for Innovation in Social Policy
http://www.cga.state.ct.us/coc/soc_index00/index.htm

Georgia

Governor’s Office of Planning and Budget <http://www.opb.state.ga.us/>

State Strategic Plan <http://www.opb.state.ga.us/publications/StrategicPlanFY04.htm>

“Prioritized Program Planning And Budgeting: Fy06 Strategic And Business Planning Guidelines For Georgia Agencies”, Governor’s Office of Planning and Budget Georgia Merit System Georgia Technology Authority Atlanta, Georgia
http://www.opb.state.ga.us/Strategic_Business_Planning/GUIDELINES%20FINAL%20COPY8-03-2004.pdf

Idaho

Office of Performance Evaluations Idaho State Legislature <http://www2.state.id.us/ope/default.htm>

Kansas

Division of Budget <http://da.state.ks.us/budget/>

Louisiana

Office of Planning and Budget, Performance-Based Budgeting <http://www.state.la.us/opb/pbb/pbb.html>

Statutory Requirements for Performance Accountability (La. R.S. 39:87.1). <http://www.state.la.us/opb/pbb/pa-statutes.htm>

Performance Standards <http://www.state.la.us/opb/pbb/pbb.html>

Maine

Maine State Planning Office, State of Maine Performance Budgeting Web Page
<http://www.maine.gov/spo/sp/stratplan/>

Maine Marks <http://www.mainemarks.org/>

Bureau of the Budget <http://www.state.me.us/budget/>

Maryland

“Managing for Results” Department of Budget and Management

http://www.dbm.maryland.gov/dbm_publishing/public_content/dbm_taxonomy/other_services/managing_for_results_mfr/about_mfr/mfroverview.html

Office of Legislative Audits <http://www.ola.state.md.us/>

Minnesota

Minnesota Milestones <http://www.mnplan.state.mn.us/mm/>

Department Results <http://www.departmentresults.state.mn.us/subjects/publicsafety/index.htm>

Mississippi

The Mississippi Legislature, Joint Committee on Performance Evaluation And Expenditure Review

<http://www.peer.state.ms.us/>

New Jersey

Department of Treasury, Office of Budget and Management, <http://www.state.nj.us/treasury/omb/>

Budget for each program or department contains “evaluation data”

“Living with the Future in Mind Goals and Indicators for New Jersey's Quality of Life First Annual Update to the Sustainable State Project Report 2000,” The Interagency Sustainability Working Group, under the direction of Commissioner Robert C. Shinn, Jr. New Jersey Department of Environmental Protection

<http://www.state.nj.us/dep/dsr/sustainable-state/>

Nevada

“Perspectives: A Biennial Report of State Agencies 2002,” Department of Administration, Budget and Planning Division, Editor: Heather K. Elliott, Governor Kenny C. Guinn, John P. Comeaux, Director Department of Administration July 2002 <http://budget.state.nv.us/BR02Cover.htm>

“Some Nevada Efficiency & Timeliness Measures”

http://www.budget.state.nv.us/some_nevada_timeliness_measures.htm

North Dakota

“North Dakota Delivers” <http://www.state.nd.us/fiscal/NDDelivers/NDDelivers.pdf>

Oklahoma

Office of State Finance, Budget Division Oklahoma Program Performance Budgeting and Performance Budgeting and Accountability Act Accountability Act Strategic Planning Requirements for State Agencies Strategic Planning Requirements for State Agencies HB 1622, OSL HB 1622, OSL 1999

<http://www.state.ok.us/osfdocs/sp-presnt.pdf>

Oregon

Oregon Progress Board “Oregon Benchmarks” <http://egov.oregon.gov/DAS/OPB/obm.shtml>

“2005-07 Budget & Leg Concept Instruction Appendix C Performance Measure Guidelines For Oregon State Agencies” Budget and Management Division, March 2004 Corrected August 2004,

http://www.oregon.gov/DAS/BAM/docs/Publications/2005-07_budget_instructions/AppendixC.pdf

Pennsylvania

Office of Management and Productivity, Office of Administration Executive Order creating Office of Management and Productivity, http://www.oa.state.pa.us/oac/lib/oac/exec_orders/2003-3.pdf

South Carolina

State Agency Accountability Reports <http://www.scstatehouse.net/reports/aar2001/aar2001.htm>

Texas

Legislative Budget Board <http://www.lbb.state.tx.us/>

Utah

Governor's Office of Planning and Budget <http://governor.utah.gov/gopb/default.html>

"Utah Tomorrow Strategic Plan," Governor's Office of Planning and Budget
<http://www.governor.utah.gov/PLANNING/UtahTomorrow/StrategicPlan2000.htm>

Washington

Office of Management & Performance <http://www.ofm.wa.gov/budget/manage/manage.htm>

Performance Measures & Activities <http://www.ofm.wa.gov/budget/activity/03-05/activity.htm>

"Governing for Results" <http://www.governor.wa.gov/improve/improve.htm>

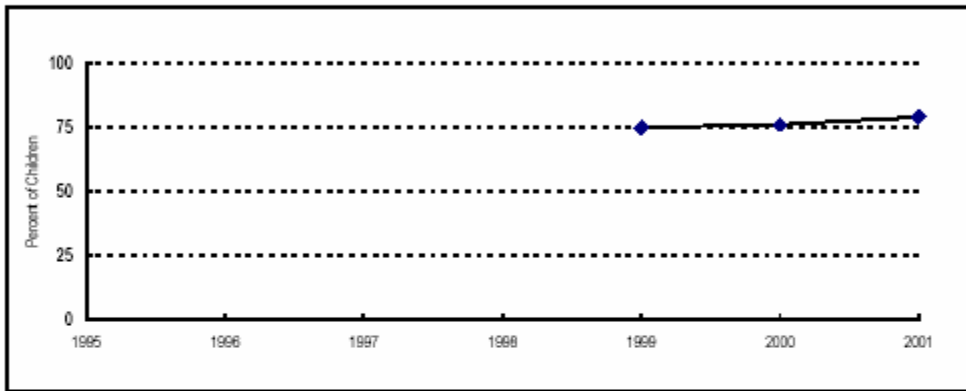
Appendix 5.1: Example of Missouri Agency Strategic Plan (Primary and Secondary Education)

Key Outcome: Increased percentage of children entering school ready to succeed

What's the trend?

More than three-fourths of Missouri kindergartners enter school with average or above average school readiness skills, according to results of the Missouri School Entry Assessment.

Percent of children with "average" or "above average" school readiness skills



Percent of children with "average" or "above average" school readiness skills	1996	1997	1998	1999	2000	2001
				75%	76%	79%

SOURCE: Missouri School Entry Assessment, 1999-2001

ABOUT THE MEASURE: The Missouri School Entry Assessment was conducted for the first time during the 1998-99 school year by the Department of Elementary and Secondary Education, in cooperation with the Departments of Health, Mental Health and Social Services. The assessment involves approximately 3,500 kindergartners drawn from a stratified, random sample of Missouri districts and schools. Teachers rate children on 66 items in general areas such as language development, mathematical understanding, and how they work with others. Based on their observations, teachers also rate each child in terms of his or her preparation for kindergarten. Children rated as average or above average are considered prepared for kindergarten. A complementary parent survey provides information about major pre-kindergarten experiences.

Why is this outcome important?

Neuroscience findings indicate that the first five years of life are critical in the development of a person's character and behavior. Research shows that quality early care and parent education programs improve children's readiness for school and later success. Failure to address the need for quality early care and parent education will mean that some Missouri children start school with undiagnosed developmental delays or health problems that could jeopardize their chances for success. Without a strong start in school, students will not acquire essential knowledge and skills and will be less likely to complete high school and continue their education. Without quality early care and parent education, costs for special education and remedial education services could increase. Opportunities to reduce child abuse and neglect through parent education and support will be lost.

How does Missouri compare to other states and the nation on this measure?

Comparative measures are not available at this time.

What factors influence this measure?

- Awareness and understanding among parents and school personnel of the research showing the importance of quality early care and education
- Families' awareness of and access to community agencies that can provide needed support services
- Districts' ability to provide adequate space and support services for preschool and full-day kindergarten programs
- Funding

What works?

Missouri has made progress during the past decade in providing quality early care and parent education programs. These programs must be expanded, however, to ensure that all families have access to high-quality preschool and child-care services and to ensure that parents are skilled, first teachers of their children. Approximately 366,000 Missouri children under the age of five and their families are eligible to take advantage of one or more of these programs or services:

- **Parents as Teachers (PAT)** is a voluntary program that supports parents in their role as their child's first and most influential teacher. PAT also provides screenings so that developmental delays and health needs can be identified and addressed before children enter kindergarten.
- The **First Steps** program provides early intervention services for children with special needs from birth to age three and their families.
- The **Missouri Preschool Project (MPP)** and **Title I preschools** are sponsored by the Department. Research shows that the quality of an early childhood program is directly related to the education and training of the early childhood teacher/caregiver. Both of Missouri's programs have high standards for teachers, curriculum and class size. MPP requires licensing before the opening of the preschool and accreditation by a nationally recognized organization within three years of opening.

Addressing the needs of young children and their families must be a collaborative effort among programs within the Department, and among the Department and other entities, both public and private, that provide services. The Department must continue to support initiatives that will create the cohesive, high-quality system envisioned by the state's Commission on Early Childhood Care and Education in 1997.

Other School Entry Assessment findings indicate that quality preschool experiences benefit children:

- When Parents as Teachers (PAT) is combined with any other pre-kindergarten experience for high-poverty children, the children score above average on all scales when they enter kindergarten.
- The highest performing children participate in PAT and preschool or center care. Among children who participate in PAT and attend preschool, both minority and non-minority children score above average. Children in both high-poverty and low-poverty schools who participate in PAT and attend preschool score above average when they enter kindergarten.
- Teachers rate special needs children who participate in PAT and preschool in addition to an early childhood special education program as being similar in preparation to other children.

Efforts to increase the percentage of students who enter school ready to succeed include making PAT services available to more families, especially those who meet high-need criteria; expanding educational preschool services through the Missouri Preschool Project and other programs created by House Bill 1519; and addressing quality issues, such as program accreditation, use of research-based curricula, teacher and teacher-assistant qualifications and professional development, and child-adult ratios. The Early Childhood Care and Education Interagency Team has developed an interagency work plan (goals, desired outcomes, objectives and strategies) to guide implementation of key initiatives.

For more information:

<http://www.dese.state.mo.us/divimprove/fedprog/earlychild/>

Early Childhood Education Section

Division of School Improvement

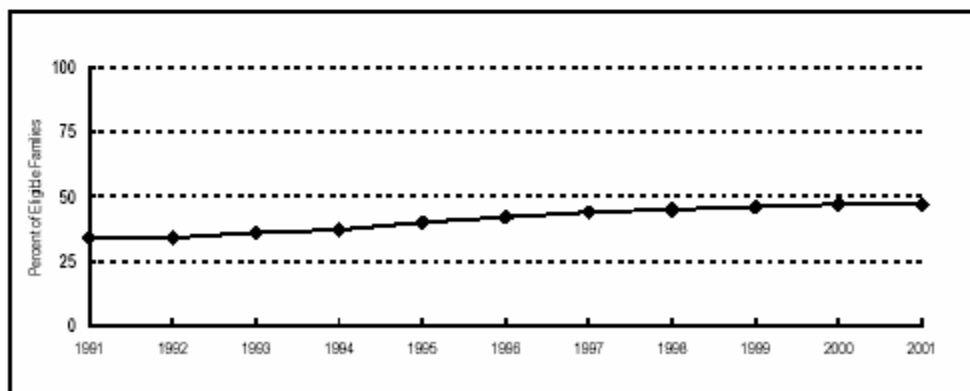
Missouri Department of Elementary and Secondary Education

Key Objective: Increase from 47 to 60 percent the number of families with pre-kindergarten children who participate in parent education and related support services, by 2005.

What's the trend?

The percent of eligible families served by PAT grew from 30 percent in 1990 to 47 percent in 2000 and remained stable at 47 percent in 2001. State education officials have set the objective of serving 60 percent of eligible families by 2005; they also believe that a long-term goal of serving 70 percent of eligible families is reasonable, despite the voluntary nature of the program. In recent years, the state has redirected some PAT resources to increase services for the neediest families as well as increase the overall number of families served.

Percent of eligible families served by Parents as Teachers



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Percent of eligible families with pre-kindergarten children served by PAT (0-5 program)	34%	34%	36%	37%	40%	42%	44%	45%	46%	47%	47%
Percent of PAT families who are "high need" (0-3 program)			40%	40%	42%	48%	38%	41%	41%	44%	44%
Number of districts with PAT participation rates below 30% (0-3 program)					213 (41%)	187 (38%)	173 (33%)	149 (28%)	122 (23%)	110 (21%)	101 (19%)

SOURCE: Early Childhood Education Section, August 2001

ABOUT THE MEASURE: The PAT participation rate is calculated by dividing the number of families served by PAT statewide by the number of families with children, birth to five. The numbers of eligible families for the state and for each school district are derived from Census data multiplied by a change factor, which are supplied by the state demographer. The numbers of families served statewide and for each district are taken from end-of-the-year reports submitted by each district. "High need" families have one or more of the high-needs characteristics (see "What works?" below).

Why is this objective important?

Parents as Teachers is Missouri's model home-school-community partnership, which supports parents in their role as their child's first and most influential teachers. Several independent evaluations of PAT, conducted between 1985 and 1995, have shown the program to be effective: 1) PAT children were significantly more advanced in language development, problem solving, and social development at age 3 than comparison children, 2) 99.5 percent of participating families were free of child abuse or neglect; 3) children whose families participated in PAT maintained their early gains in elementary school, based on standardized test results, 4) PAT parents continue to take an active role in their child's education, and 5) school districts have reduced costs because fewer students required special education services and remedial education and fewer students were retained.

The state's Early Childhood Development Act of 1984 requires all school districts to make parent education and screening services available to families with children birth to five. Parents in every Missouri school district can choose to take advantage of PAT services, which include personal visits from certified parent educators, group meetings, developmental screenings, and connections with other community resources.

How does Missouri compare to other states and the nation on this measure?

Missouri is the only state that provides for and funds universal access to Parents as Teachers; therefore, comparative data are not available.

What factors influence this measure?

- Awareness and understanding among parents and school personnel of the research showing the positive effect of this program—especially when it is combined with quality preschool experience—on young children

- PAT participation is voluntary.
- The ability of district PAT staff to reach high-needs families and inform them about the benefits of PAT participation
- Funding

What works?

- Expanding services to high-need families.

For the past three years, school districts have been able to provide as many as 25 personal visits for families with high needs. (High-needs families include teen parents; unemployed parents; parents with disabilities; foster parents; parents involved with the state's corrections, mental health, health, or social service systems; non-English speaking parents; those with chemical dependencies.) In 2000-01, 44 percent of the families participating in PAT (birth to 3 program) met one or more of the high-needs characteristics.

- Expanding services to families with three- and four-year olds.

155,156 Missouri families received parent-education services through PAT in 1999-2000, including 29,107 newly recruited families. State education officials support expanding parent-education services for families with three- and four-year-olds so that they receive the same level of services as participants in the PAT birth-to-3 program. Continuing the same level of services for families with three- and four-year-olds would strengthen the transition to kindergarten and help increase school-readiness skills among Missouri children.

- Expanding developmental screening services.

In 1999-2000, 132,850 children, ages 1-5, participated in developmental, language, hearing and vision screenings, which help to detect and address problems that might affect a child's future success in school. State education officials also believe developmental screening services should be expanded for all preschoolers.

- Expanding outreach and publicity efforts.

Districts that actively recruit in hospitals, doctors' offices, WIC (Women, Infants and Children nutrition program) offices, and Family Services offices increase the percent of eligible families who participate in PAT.

For more information:

<http://www.dese.state.mo.us/divimprove/fedprog/earlychild/>
Early Childhood Education Section
Division of School Improvement
Missouri Department of Elementary and Secondary Education

Key Strategies

1. The Department will inform school leaders about the importance of increasing participation in parent education and support systems, particularly among high-needs families.
2. The Department will advise districts on removing barriers to the involvement of families and communities as active partners in their children's education through PAT, e.g. helping districts identify neutral locations where PAT parent educators can meet with parents who live in unsafe neighborhoods.
3. The Department will make a concerted effort to assist districts that have historically low participation in PAT, including St. Louis and Kansas City.
4. The Department will encourage districts to recruit more First Steps families into PAT.

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Appendix 5.2: Priority Results for Missourians

Missouri is a Leader in Education

Result: Increased percentage of children prepared for kindergarten
Increased percentage of students scoring proficient or higher on MAP tests
Increased percentage of 18-year-olds with a high school diploma or GED

Success Predictors

- Parents participating in Parents as Teachers program
- Children not abused or neglected
- Children participating in a quality early childhood experience
- K-3rd graders in classes with 15-20 students
- Use of technology in the classroom
- High quality teachers
- School attendance
- Youth involved in extracurricular and community activities
- Teens not getting pregnant
- Students without substance abuse

Missouri is Developing a 21st Century Economy

Result: Increased level of per capita income
Decreased rate of unemployment
Increased percentage of people with incomes above 100 percent of the poverty level

Success Predictors

- Missourians with undergraduate or technical degrees
- Improved net farm income
- High wage jobs
- Higher rates of employment among persons with disabilities
- Thriving businesses
- Economic health of the community
- Safe and sound financial institutions
- High quality transportation infrastructure
- Representation for all citizens in the economy

Missouri is a Safe, Healthy Place to Live and Work

Result: Decreased rates of crimes against persons
Decreased rates of crimes against property
Increased percentage of births resulting in healthy birth-weight babies
Decreased impact of chronic diseases
Increased life expectancy

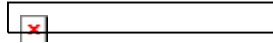
Success Predictors

- Few repeat offenders (recidivism rate)
- Less juvenile crime
- Mothers accessing pre-natal care
- Mothers not smoking or abusing drugs during pregnancy
- Higher immunization rates
- Lower rates of chronic risk factors (smoking, obesity, etc.)
- Missourians with health insurance
- Missourians not living in poverty
- Clean air and water
- People with mental illnesses moving towards recovery

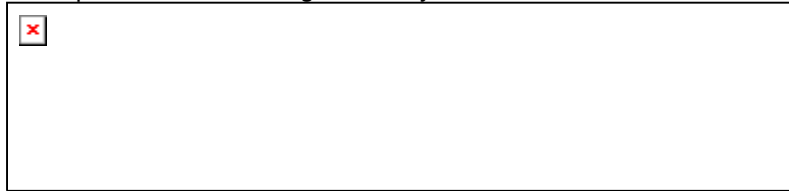
Appendix 5.3: Overview of the Virginia Performance Management System

VIRGINIA'S PERFORMANCE MANAGEMENT SYSTEM: AN OVERVIEW

[Virginia Results Home](#)



Virginia's current managing for results system has been operational since 1995. It is comprised of four, linked processes: strategic planning, performance measurement, program evaluation, and performance budgeting. The figure below presents one way to show the linkages between these processes. Because the processes are designed to work together to manage the performance of state government, this system is referred to as the Virginia's "performance management" system.



Definitions of each of the four components of the state's performance management system are as follows:

- **Strategic planning:** Systematic clarification and documentation of what an organization wishes to achieve and how to achieve it.
- **Performance measurement:** Systematic collection and reporting of information that track resources used, work produced, and intended results achieved.
- **Program evaluation:** Systematic collection and analysis of information to determine a program's performance and reasons for achieving the level of performance.
- **Performance budgeting:** Systematic incorporation of performance information (planning, performance measurement, and evaluation information) into the budgetary process.

Taken as a whole, these components provide multiple tools and streams of information that policy and decision-makers, the general public, and state employees can use to manage strategy and improve and communicate the results of government services. These three key uses of Virginia's managing for results system can be further broken out as follows.

Manage Strategy

- Support strategic and operational planning
- Guide resource allocation
- Enhance accountability
- Identify partners for collaborations

Improve Performance

- Identify effective practices
- Support organizational learning
- Facilitate organizational redesign
- Recognize and reward successes
- Recruit and retain talented staff
- Identify training needs

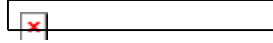
Communicate Results

- Substantiate funding requests
- Demonstrate effectiveness to internal/external audiences
- Enhance agency's program's public image
- Recognize and reward successes
- Promote a program to referral sources

Appendix 5.4: Virginia Statewide Quality Of Life Indicators

STATEWIDE QUALITY OF LIFE INDICATORS

[Virginia Results Home](#)



[Community](#) | [Economy](#) | [Education](#) | [Environment](#) | [Families](#) | [Government](#) | [Health](#) | [Safety](#) | [Technology](#)

Community

- ☐ [Percent of voting-age Virginians who vote in national general elections](#)
- ☐ [Per capita monetary contributions to local charitable organizations](#)
- ☐ [Number of public charitable organizations](#)
- ☐ [Percent of families owning a home](#)
- ☐ [Percentage of income required by a low-income household to pay Fair Market Rent \(as determined by HUD\) for a modest apartment in Virginia.](#)

Economy

- ☐ [Percent change in annual nonfarm employment](#)
- ☐ [Per capita gross state product](#)
- ☐ [Per capita personal income](#)
- ☐ [Unemployment rate \(percent\)](#)
- ☐ [Number of new companies per 1000 employees](#)

Education

- ☐ [Percentage of 8th grade Virginia public school students passing the English-writing section of the Standards of Learning exam](#)
- ☐ [Percentage of 8th grade Virginia public school students passing the mathematics section of the Standards of Learning exam](#)
- ☐ [Percent of adults 25 or older living in Virginia who have graduated high school](#)
- ☐ [Average tuition and fees at public universities](#)
- ☐ [Percent of adults living in Virginia who have completed a baccalaureate degree](#)
- ☐ [Percentage of 8th grade Virginia public school students passing the reading, literature, and research section of the Standards of Learning Exam](#)

Environment

- ☐ [Air pollution emissions in short tons \(in thousands\)](#)
- ☐ [Percent of river and stream miles polluted](#)
- ☐ [Percent of pollution discharged into surface waters](#)
- ☐ [Energy use per capita \(millions of BTUs\)](#)
- ☐ [Per capita use, freshwater, in gallons per day](#)

☐ [Percentage of nonfederal land developed](#)

Families

☐ [Percent of children under 18 living in households below the federal poverty line](#)

☐ [Number of families participating in the Temporary Assistance for Needy Families \(TANF\) Program](#)

☐ [Percent of children in families headed by a single parent](#)

☐ [Teen pregnancy rate \(per 1,000 girls age 15-19\)](#)

Government

☐ [State and local taxes as a percentage of personal income](#)

☐ [Number of major bond rating firms \(Standard and Poor's Corporation, Moody's Investor Service, and Fitch Investor's Service\) that give Virginia AAA rating](#)

Health

☐ [Percent of children age 19-35 months who have been fully immunized \(4:3:1 series\) against vaccine-preventable childhood diseases](#)

☐ [Percent babies weighing less than 2,500 grams \(5.5 pounds\) at birth](#)

☐ [Infant mortality rate \(deaths per 1,000 live births\)](#)

☐ [Percent of non-elderly Virginians with public and private health care insurance](#)

☐ [Expected years of life remaining at birth](#)

☐ [Percent of Virginians who have smoked or used any tobacco products in the past month](#)

☐ [Percent of Virginians who consumed any alcoholic beverages in the past month](#)

Safety

☐ [Number of violent & nonviolent crimes reported per 100,000 residents](#)

☐ [Number of arrests of juveniles - all offenses \(except traffic\), per 1000 total population](#)

☐ [Percent of state prisoners released in-state who were arrested for a new crime within 2 years](#)

☐ [Number of children per 1000 child population where charge of abuse substantiated](#)

☐ [Number of traffic fatalities per 100 million miles traveled](#)

Technology

☐ [Percent of Virginians who have access to Internet either at home or at work.](#)

☐ [Percent of Virginians with a computer in their home.](#)

Appendix 5.5: Virginia Performance Management Criteria

Evaluation Criteria for Governor's Management Scorecard

Objectives	Results		
	Below Expectations	Progress Toward	Meets Expectations
Human Resources			

Management			Expectations	
HR 1	WORKFORCE PLANNING: Implements effective workforce plans utilizing accurate and timely workforce data. Creates a work environment conducive to change. <i>Data source: Agency Workforce Plan, Commonwealth Workforce Plan</i>	Workforce plan has not been started. Workforce data is incomplete or out-of-date.	Workforce plan is under development. Gaps in the workforce have not been addressed. Workforce data is incomplete and not always timely.	Workforce plan is completed and submitted identifying objectives required to achieve organizational goals. Workforce data is complete and current.
HR 2	EMPLOYEE ATTRACTION & RETENTION: Attracts and retains qualified workforce by strategically using existing human resource management flexibilities, pay practices, and benefits. <i>Data source: Hiring Report, Pay Practices Report, Applicant Flow Report, Turnover Report, Employee Surveys</i>	Positions remain unfilled. Turnover is high. Human resource management flexibilities are not used.	Positions filled with minimally qualified candidates. Human resource management flexibilities are not fully utilized.	Positions are filled on time with qualified candidates. Human resource management flexibilities are used effectively.
HR 3	FAIRNESS & DIVERSITY: Applies management policies and practices fairly and consistently. Champions equal employment opportunity and inclusion by prohibiting discrimination. Utilizes EEO compliance statistics to address deficiencies. <i>Data source: EEO Assessment Report, Employee Dispute Resolution Report</i>	Actions are not taken to address inconsistent application of policy or EEO issues. Employee allegations are upheld in employee grievances and EEO cases.	Actions are being implemented to address inconsistent application of policy and EEO issues. Employee allegations are fully or partially upheld in employee grievances and EEO cases.	Workforce is diverse. Policies are consistently applied and there are no EEO issues. Agency positions are upheld in employee grievances and EEO cases.
HR 4	EMPLOYEE PERFORMANCE MANAGEMENT: Differentiates among levels of performance. Excellence is rewarded, and mediocre or poor performance carries consequences. <i>Data source: Employee Performance Evaluation Report, Agency Salary Administration Report</i>	Performance is not managed on an ongoing basis. No employee performance evaluations have been documented. Recognition program is not used.	Performance is managed inconsistently. Some employee performance evaluations have been documented. Recognition program is sometimes used.	Performance is managed on an ongoing basis. All employee performance evaluations have been documented. Employee performance evaluation program is appropriately administered. Recognition program is used effectively.
HR 5	TRAINING & DEVELOPMENT: Invests in the training of the workforce to insure that employees have the appropriate skill sets. Develops employees to meet the current and future needs of the organization. <i>Data source: Training Report,</i>	Employees have not been trained and do not have the necessary skills to do the job.	Some employees have received appropriate training and have the necessary skills to do the job.	All employees have received appropriate training and have the necessary skills to do the job.

	<i>Employee Training Evaluations</i>			
HR 6	SAFE WORK ENVIRONMENT: Provides a safe work environment minimizing potential hazards. <i>Data source: OSHA 300A Report, Agency OSHA Programs, Workers' Compensation Reports</i>	Workplace hazards are ignored. Workforce receives no safety training. Safety programs are not in place.	Addresses workplace hazards as they occur. Workforce receives minimal safety training. Safety programs out-of-date.	Potential hazards have been identified and corrected. Loss data is analyzed. Safety training is provided. Safety programs are up-to-date.
Government Procurement		Below Expectations	Progress Toward Expectations	Meets Expectations
GP 1	eVA USAGE: Conducts procurements using advanced technology by: 1) completing all agency purchases through the eVA portal, 2) posting notices of business opportunities on the eVA website, and 3) making purchases from vendors and suppliers who are registered in eVA. <i>Data source: DGS and DOA Quarterly Management Reports (to be developed)</i>	1) Less than 25% of agency procurements are processed through eVA. 2) Less than 75% of agency purchases are with eVA registered vendors and suppliers.	1) At least 25%, but less than 95% of agency procurements are processed through eVA. 2) At least 75%, but less than 95% of agency purchases are made with registered vendors and suppliers.	At least 95% of agency procurements are made through eVA with registered vendors and suppliers.
GP 2	SMALL, WOMEN, & MINORITY SUPPLIERS: Demonstrates commitment to using Small, Women and Minority (SWAM) suppliers by: 1) designating an agency employee as its Supplier Diversity Champion(s), 2) including, when available, suppliers from the list of certified minority business enterprises (MBE) in all agency solicitations, 3) providing supplier diversity training for its employees, 4) promoting the use of SWAM subcontractors in state construction and major multi-faceted contracts, and 5) collecting statistics and preparing reports on its supplier diversity efforts. <i>Data source: DMBE Quarterly Management Reports</i>	Incomplete SWAM procurement plan, no progress toward SWAM aspirational goals or failure to submit quarterly SWAM reports.	Late or insufficient SWAM procurement plan, minimal progress toward SWAM aspirational goals or late/insufficient quarterly SWAM reports.	Complete and timely SWAM procurement plan, sufficient progress in meeting SWAM aspirational goals and accurate/timely quarterly SWAM reports.
Financial Management		Below Expectations	Progress Toward Expectations	Meets Expectations
FM 1	BUDGET PLAN: Establishes financial plan with spending targets. Ensures expenditures are made in accordance with the Appropriation Act and any other	Expenditures exceed targets and agency does not meet requirements established by the	Expenditures exceed target or agency does not meet requirements established by the	Not exceeding total target and meeting other requirements established by Governor.

	requirements that the Governor may add. Data Source: CARS and PROBUD.	Governor.	Governor.	
FM 2	INTERNAL CONTROLS: Complies with all state laws and regulations, ensures agency internal control framework and procedures safeguard against the loss or inefficient use of Commonwealth assets and records financial transactions properly in CARS. <i>Data Source: Report on Audit for the Year Ended (APA Report)</i>	More than three audit findings, management letter comments, and/or material internal control weaknesses reported in the most recent APA audit report.	One to three APA audit findings, management letter comments, and/or material internal control weaknesses reported in the most recent APA audit report.	No APA audit findings, management letter comments or material internal control weaknesses reported in the most recent APA audit report.
FM 3	APA AUDITS: Ensures that material weaknesses, audit points, and management letter comments from APA audits are adequately and promptly addressed and not recurring. <i>Data Source: Comptroller's Quarterly Report</i>	Two or more recurring findings.	Untimely corrective action plan or one recurring finding.	No findings or recurring findings, timely corrective action plan.
FM 4	PROMPT PAY: Ensures compliance with the minimal acceptable management standard of 95 percent compliance with the prompt pay act. <i>Data Source: Comptroller's Quarterly Report</i>	Below 95% compliance in last two quarters.	Below 95% compliance during the most recent quarter.	95% or higher compliance during the quarter and fiscal year-to-date.
FM 5	DISBURSEMENT POLICIES: Adheres to statewide disbursement policies governing the legal and proper disbursement of state funds, including but not limited to state travel policies. <i>Data Source: Comptroller's Quarterly Report</i>	APA management letter comment regarding compliance with state funds disbursement policies and/or "minimal" or "unacceptable" rating in Comptroller's disbursements review.	"Satisfactory" rating in Comptroller's disbursements review.	No APA management letter comments regarding compliance with state funds disbursement policies and "good" or "exceptional" rating in Comptroller's disbursements review.
Technology		Below Expectations	Progress Toward Expectations	Meets Expectations
T1	IT PLANNING: Integrates information technology into business operations effectively by implementing a successful IT strategic plan tied to the business issues of the agency. Use of information technology continuously leads to efficiencies in business operations.	No Information Technology Strategic Plan in place.	Information Technology Strategic Plan in place, but business-oriented metrics for gauging progress are not defined.	Information Technology Strategic Plan completed with metrics gauging the progress of outstanding IT projects.

	<i>Data source: Agency IT Strategic Plan and Technology (IT Investment) Portfolio.</i>			
T2	IT INVESTMENTS: Invests in statewide information technology resources and procurement that support Virginia's information technology infrastructure and enterprise architecture. <i>Data source: Agency IT Technology (IT Investment) Portfolio.</i>	Technology Portfolio not complete. Metrics not established for IT investments.	Technology Portfolio not current. Metrics established for IT investments but are not actively reviewed.	Technology Portfolio complete and current, with metrics actively reviewed by management..
T3	IT PROJECT MANAGEMENT: Manages and reviews agency-based information technology projects to ensure that projects are on-time, within budget, and meet business-oriented performance measures. Takes prompt corrective action for poor performance. <i>Data source: IT Dashboard (Projects Database of Technology Portfolio)</i>	Did not perform IT project evaluations and performance measurements.	IT project evaluations and performance measurements are completed, with status indicators reflecting continuous project problems.	IT project evaluations and performance measurements are completed, with status indicators demonstrating problem corrective actions in place or no continuing problems.
T4	POLICY ADHERENCE: Adheres to statewide information technology policies in systems development, enterprise architecture, and the maintenance, operation, and security of information technology systems. <i>Data source: Agency IT Service Level Agreements / APA Audits / VITA Audits</i>	Action not taken to address any IT audit points. No Service Level Agreement with VITA in place.	Two or more consecutive quarters of repeated IT audit comments.	IT audit demonstrates no deficiencies, or corrective action work plan has been implemented. Service Level Agreement with VITA in place.
Performance Management		Below Expectations	Progress Toward Expectations	Meets Expectations
PM 1	COMMUNICATES PRIORITIES: Develops and documents agency priorities in agency strategic plan, and communicates in at least two ways within thirty days of development to all managers and staff. <i>Data source: Strategic Plan</i>	No strategic plan, no quantifiable objectives documented.	Strategic plan with quantifiable objectives documented, but not communicated to all managers and staff in at least two ways within thirty days of development.	Strategic plan with quantifiable objectives documented and communicated in at least two ways within thirty days of development to all managers and staff.

Appendix 5.6: Virginia Performance Management Scorecard

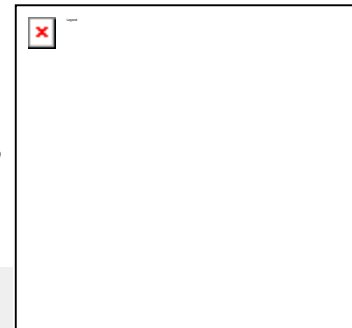
Management Scorecard

Legend:

G	Meets Expectations
Y	Progress Toward Expectations
R	Below Expectations
U	Results Unavailable

Click column headers to alphabetically sort agencies by name or by Secretariat.
Click on a colored square to view the criteria for that category.

Agency Name	Secretariat					
Board of Accountancy	Commerce and Trade	G	G	G	G	G
Commonwealth's Attorneys' Services Council	Public Safety	G	G	G	G	G
Department for the Aging	Health & Human Resources	G	Y	G	G	Y
Department for the Blind and Vision Impaired	Health & Human Resources	G	Y	G	Y	Y
Department for the Deaf & Hard-of-Hearing	Health & Human Resources	G	Y	G	Y	Y
Virginia Tourism Authority	Commerce and Trade	G	G	G	G	G



Appendix 5.7 Virginia Results Planning and Performance Report for State Police

Virginia Results Planning and Performance Report

November 9, 2004

Department of State Police (156)

Agency Head Contact Information

Name: Colonel W. Steven Flaherty Phone: 804-674-2087

Email: supt@vsp.state.va.us

Planning and Performance Contact Information

Name: Cynthia A. Vernacchia Title: Planning Director

Telephone: 804-674-2239 Email: cvernacchia@vsp.state.va.us

Agency Website: <http://www.vsp.state.va.us/vsp.html>

Mission Statement

The Virginia State Police, independent yet supportive of other law enforcement and criminal justice agencies, will provide high quality, statewide law enforcement services to the people of Virginia and our visitors.

Activities

1. **Uniform Patrol Services:** Efforts to promote highway safety by patrolling over 64,000 miles of roadways and interstate highways throughout Virginia, providing traffic safety information to the public, and enforcing Virginia's traffic laws.
2. **Crime Investigation and Intelligence Services:** Efforts to enforce criminal laws and help local law enforcement agencies with complex investigations requiring special equipment or expertise. The collection of intelligence pertaining to terrorist activity is also included in this activity.
3. **Drug Enforcement:** Efforts to enforce the Commonwealth's narcotics laws and help local law enforcement agencies with narcotics investigations.
4. **Counter-Terrorism and Criminal Interdiction:** Efforts to provide the central command for the department's statewide Regional Response Teams. Members are fully trained and equipped to respond to the scene of major disasters or acts of terrorism.

5. **Training:** Efforts to provide entry-level and in-service training to all employees, ensuring all employees meet or exceed mandated training requirements.
6. **Telecommunications:** Efforts to maintain the department's communication system, which includes dispatch services, radios, microwaves, telephones, and electronics. This activity also encompasses installing and maintaining radio equipment in other state agency vehicles.
7. **Criminal Justice Computer Network:** Efforts to maintain a critical criminal justice computer network for use by local, state, and federal law enforcement agencies.
8. **Criminal and Non-Criminal Justice Information Services:** Efforts to collect, store, retrieve and disseminate important law enforcement data such as criminal history records, fingerprints, investigative reports, photographs, concealed weapons permits, the sex offender registry, and missing children information.
9. **Sex Offender and Crimes Against Minors Registry:** To maintain information on violent sex offenders in the registry and provide public access to this information through the Internet. This activity also monitors offender records and reports non-compliance of offenders.
10. **Vehicle Safety Inspections:** Efforts to reduce the number of vehicles with safety defects through enforcement of motor carrier safety and hazardous materials regulations, supervision of the Safety Inspection Program, and approval of safety equipment.
11. **Firearms Program:** Efforts to prevent the sale of firearms to those not authorized to own them by providing gun dealers with instantaneous confirmation of the eligibility of prospective gun purchasers based on the results of a criminal history record check.
12. **Aviation:** Efforts to support law enforcement through aerial speed enforcement, surveillance, transportation of special enforcement units, medical evacuation from accidents, search and rescue, and marijuana eradication.
13. **Commercial Vehicle Enforcement:** Efforts to enforce commercial vehicle size and weight regulations.
14. **Motorist Assistance Program:** Efforts to assist disabled motorists and help troopers with traffic direction and control. This program helps free troopers from these activities, allowing them more time for enforcement duties.
15. **Agency Administration:** Efforts to efficiently administer department operations through strategic planning and evaluation, quality control, financial management, maintenance of supplies and equipment, property management, human resources management, and public information.

Public Safety Agencies
 Citizens of Virginia
 Visitors

Same
 Increasing
 Increasing

Governor's and Other Initiatives	Status
In conjunction with other criminal justice agencies, the State Police Gang Strike Force will focus on eradicating gang activity in the Commonwealth by enhancing intelligence gathering capabilities and deploying Strike Force personnel to hot spots of gang activity.	The gang assessment phase of the Governor's Gang Reduction Initiative was completed on Sept. 11, 2004. Phase II of the initiative is underway. Enforcement action plans have been developed for each jurisdiction where gang activity has been identified.

[Performance Measures](#)

Measure #1

Increase the percentage of crime victims and individuals involved in traffic accidents who rate their experience with the Department as "Very Good" or "Excellent".

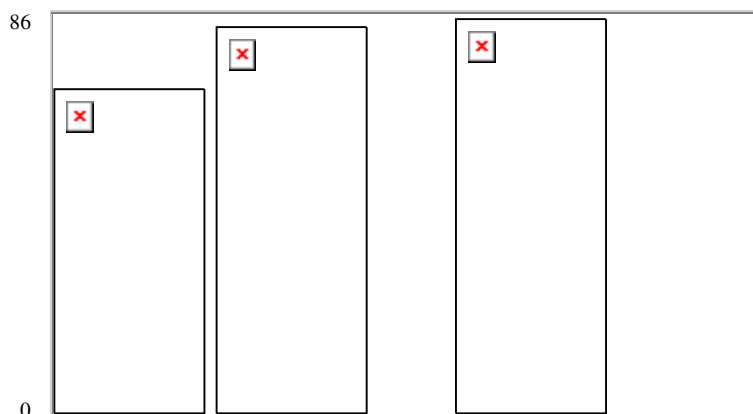
Is this measure a number or percent

The preferred direction of the trend

Target Value Target Date

Data Begins Collection Frequency

Year	Measurement	
2002	70.0	
2003	83.3	
2004		



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Explanatory Note

2004 Data not yet available due to the unavailability of third quarter sample of DMV contacts.

Title or brief description of the primary data source(s)

An annual survey is conducted of crime victims and persons involved in traffic crashes whose incidents were investigated by the State Police. A random sample of persons is selected from DMV and State Police records in the third quarter.

Describe how the measure is calculated

Number of survey responses marked "excellent" or "very good" divided by the total number of surveys returned.

Describe how the target is calculated

Executive Agreement

Measure #2

Decrease the statewide average trooper response time for emergency calls (Priority "E").

Is this measure a number or percent

The preferred direction of the trend

Target Value Target Date

Data Begins Collection Frequency

Year	Measurement	
2002	18.3	
2003	18.8	
2004	19.4	

20

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Explanatory Note

none

Title or brief description of the primary data source(s)

Response time data from Computer Aided Dispatch System (CAD)

Describe how the measure is calculated

Average time (in minutes) between a "Priority E" incident entry by dispatcher until the entered arrival of the first unit on-scene. Total of time for all "E" incidents divided by the number of "E" incidents in a given fiscal year.

Describe how the target is calculated

Reduction from 2002 average response time.

Measure #3

Improve statewide intelligence sharing capabilities by increasing the number of law enforcement agencies having access to the new Statewide Automated Criminal Intelligence Data Collection & Sharing Network.

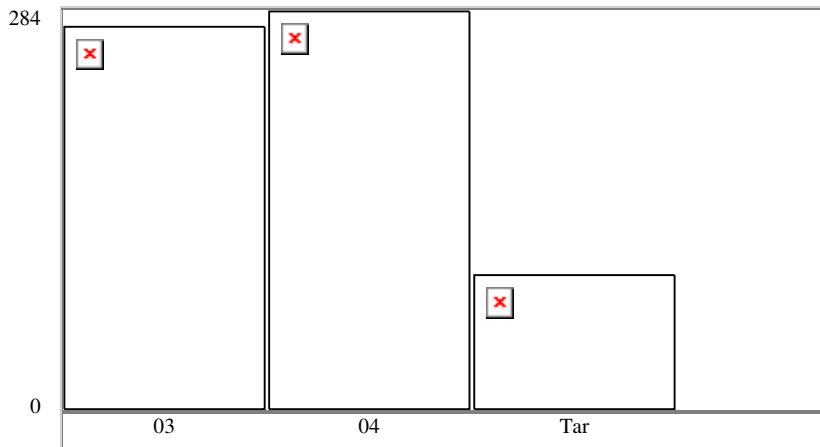
Is this measure a number or percent

The preferred direction of the trend

Target Value Target Date

Data Begins Collection Frequency

Year	Measurement	
2003	272	
2004	284	



Explanatory Note

System becomes operational in 2004.

Title or brief description of the primary data source(s)

Memorandums of Understanding (MOU) with User Agencies

Describe how the measure is calculated

Number of MOU's that are signed and returned.

Describe how the target is calculated

Program Projection

Measure #4

Implement Statewide Agencies Radio System (STARS) in all seven State Police field divisions.

Is this measure a number or percent

The preferred direction of the trend

Target Value Target Date

Data Begins Collection Frequency

Year	Measurement	
2004	0	

Not enough data to graph

Explanatory Note

Contract and funding approved in FY 2005. Data begins in FY 2005.

Title or brief description of the primary data source(s)

Written reports from STARS project team.

Describe how the measure is calculated

Number of field divisions that are operational on the STARS system.

Describe how the target is calculated

Project timeline through 2009

Measure #5

Maintain the number of founded complaints of racial profiling or driving while black at 0.

Is this measure a number or percent

The preferred direction of the trend

Target Value Target Date

Data Begins Collection Frequency

	Q1	Q2	Q3	Q4	
2000	0.0	0.0	0.0	0.0	
2001	0.0	0.0	0.0	0.0	
2002	0.0	0.0	0.0	0.0	
2003	0.0	0.0	0.0	0.0	
2004	0.0	0.0	0.0	0.0	

0.0

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0.0

Explanatory Note

none

Title or brief description of the primary data source(s)

Complaint database maintained by the Professional Standards Unit.

Describe how the measure is calculated

Number of cases closed as "Sustained".

Describe how the target is calculated

Executive Agreement

Measure #6

Increase the percentage of female recruits by 15% - from an average of 8 for the last three Academy schools.

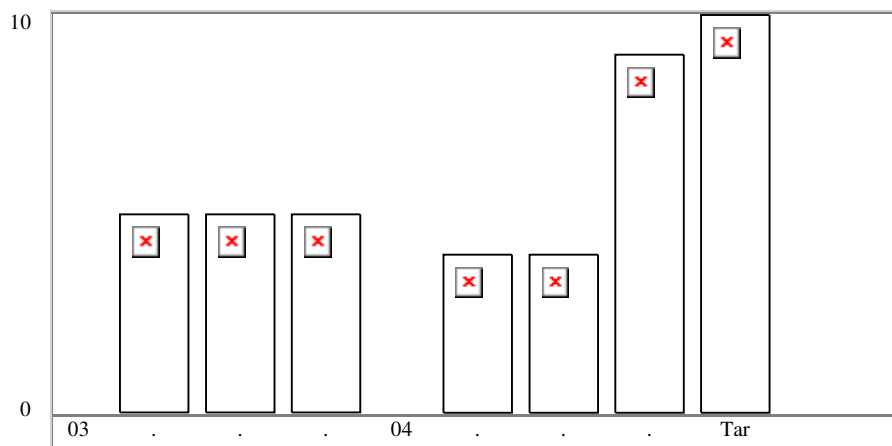
Is this measure a number or percent

The preferred direction of the trend

Target Value Target Date

Data Begins Collection Frequency

	Q1	Q2	Q3	Q4	
2003	0.0	5.0	5.0	5.0	
2004	0.0	4.0	4.0	9.0	

**Explanatory Note**

No schools were started in the first quarter of each year.

Title or brief description of the primary data source(s)

Personnel employment records

Describe how the measure is calculated

Number of female recruits hired in a particular quarter.

Describe how the target is calculated

Average number of female recruits in three schools in 2002, increased by 15% per year.

Measure #7

Increase the percentage of minority recruits by 15% - from an average of 6 recruits for the last three Academy schools.

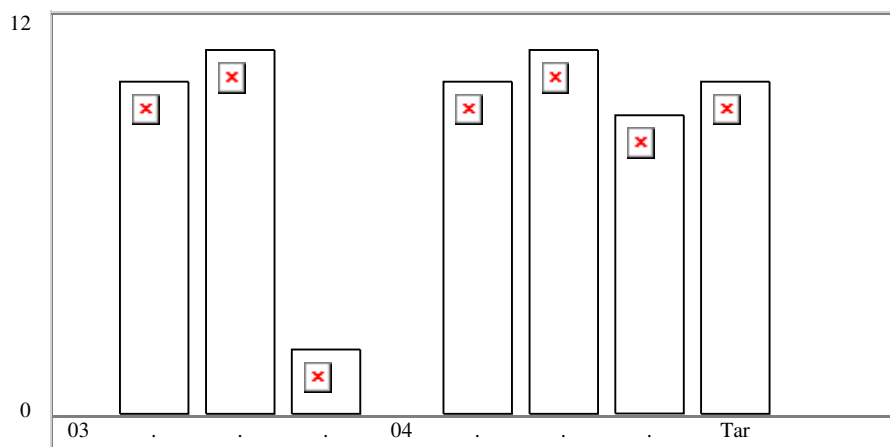
Is this measure a number or percent **Number**

The preferred direction of the trend **Increase**

Target Value **10** Target Date **2006**

Data Begins **2003** Collection Frequency **Quarterly**

	Q1	Q2	Q3	Q4	
2003	0.0	10.0	11.0	2.0	
2004	0.0	10.0	11.0	9.0	



Explanatory Note

No schools were started in the first quarter of each year.

Title or brief description of the primary data source(s)

Personnel employment records

Describe how the measure is calculated

Number of minority recruits hired in a particular quarter.

Describe how the target is calculated

Average number of minority recruits in three schools in 2002 increased by 15% per year.

Measure #8

Increase the number of sworn employees hired per year to fill vacancies.

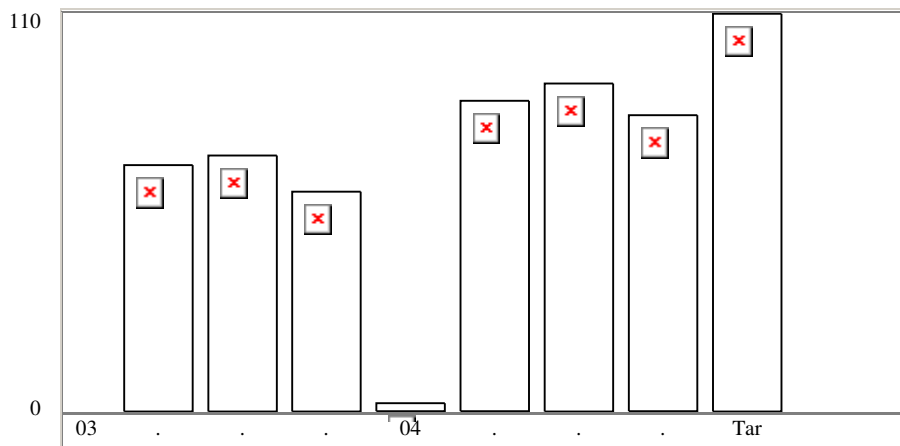
Is this measure a number or percent **Number**

The preferred direction of the trend **Increase**

Target Value **110** Target Date **2006**

Data Begins **2003** Collection Frequency **Quarterly**

	Q1	Q2	Q3	Q4	
2003	0.0	68.0	71.0	61.0	
2004	3.0	86.0	91.0	82.0	



Explanatory Note

No schools were started in the first quarter of each year. The troopers hired in the first quarter of 2004 were rehires.

Title or brief description of the primary data source(s)

Personnel employment records

Describe how the measure is calculated

Number of sworn employees hired in a particular quarter.

Describe how the target is calculated

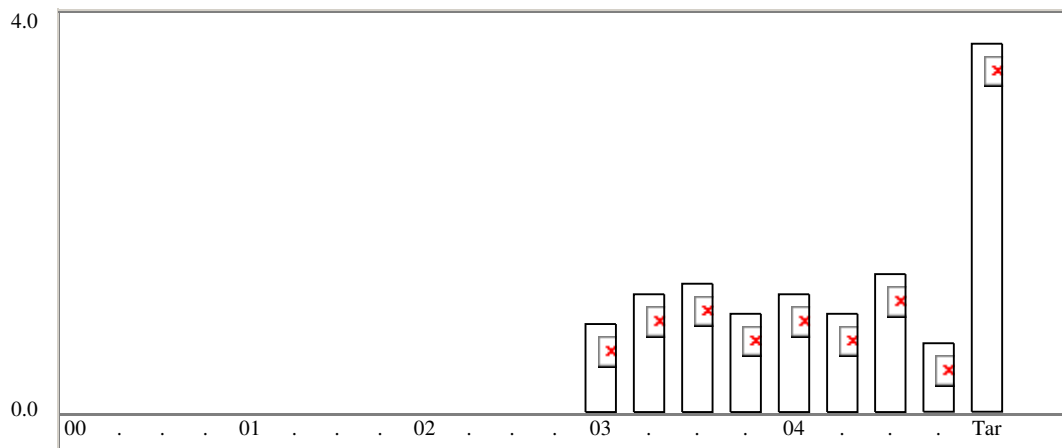
Executive Agreement

Measure #9

Maintain the turnover rate for sworn employees at 3.7%.

Is this measure a number or percent **Percent**The preferred direction of the trend **Maintain**Target Value **3.7** Target Date **2006**Data Begins **2000** Collection Frequency **Quarterly**

	Q1	Q2	Q3	Q4	
2000	0.0	0.0	0.0	0.0	
2001	0.0	0.0	0.0	0.0	
2002	0.0	0.0	0.0	0.0	
2003	0.9	1.2	1.3	1.0	
2004	1.2	1.0	1.4	0.7	

**Explanatory Note**

none

Title or brief description of the primary data source(s)

Personnel separation records

Describe how the measure is calculated

Total separations less those due to retirements or terminations.

Describe how the target is calculated

Executive Agreement

Ocean Safety

Mission

To promote and preserve a coastal aquatic environment that is safe for recreational pursuits.

The Mission answers the question: "What is the purpose of the program? What benefits will it produce?"

Summary of Activities

The Indiana Ocean Safety program is comprised of three main divisions: enforcement, search and rescue, and public education.

The Summary of Activities answers the question: "What does the State of Indiana do to accomplish the mission?"

The enforcement division employs 14 vessels and 75 officers, patrolling 400 miles of coastline. The division enforces the regulations and laws of the Indiana Maritime Act relating to boating safety, recreation, pollution, shipping, and commercial fishing.

The search and rescue division provides rapid emergency response services to all seagoing vessels in the Indiana Ocean. It employs six vessels and 30 officers. Search and rescue personnel are on call 24 hours per day, 365 days per year, and have the capacity to respond to distressed vessels ranging from one-person sailboats to international-class shipping frigates.



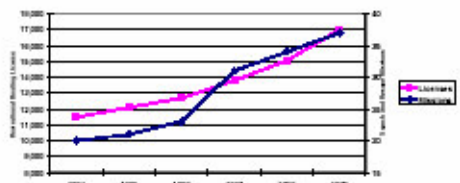
The public education division increases public awareness of ocean safety through seminars, presentations, educational materials, and the annual "Ocean Safety Jamboree". It employs five officers who travel to schools throughout the state giving ocean safety presentations to schoolchildren. It develops and distributes ocean safety manuals to all licensed boat owners, and contracts with an outside vendor for safety-related public information services.

External Factors

The most significant external factor affecting Ocean Safety is the corresponding upturn in the number of search and rescue missions enforcement. It has also increased the occurrence of simultaneous rescue missions, straining the capacity of the search and rescue division.

External Factors represent demographic trends, outside funding sources, and other factors that the state must accommodate and respond to in order to effectively accomplish the mission.

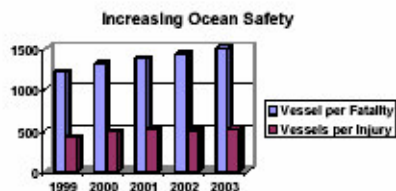
Increases in commercial activity and stricter environmental standards for ocean water quality have also contributed to a greater need for enhanced enforcement activities. The state is required to bring the water quality index to a level of 6.8 by the end of calendar year 2002. The rate at the end of 1999 was 6.1.



Evaluation and Accomplishments

Despite an increase in the number of sea-going vessels, the safety of the Indiana Ocean has improved. The ratio of vessels to fatalities has increased every year since 1995, with

The Evaluation and Accomplishments section answers the question: "To what extent has the State succeeded in carrying out the mission?"



four of the last five years. This increase in program performance is attributable to an enhanced focus on patrolling ocean areas that have been the site of a disproportionate number of accidents, and to a decreased average response time for the search and rescue unit.

The public education division has also expanded the scope of information provided to public recently. In 1999 it met its goal of visiting every secondary school in the state, meeting schoolchildren and providing educators with ocean safety curriculum materials.

Plans for the Biennium

The Ocean Safety Program has identified three primary objectives for the biennium:

- 1) Continue to refine and improve the use of the Ocean Accident Prevention System (OAPS), increasing concentrated enforcement and rescue activities in targeted areas, which will decrease personal injuries and fatalities.
- 2) Help Indiana meet the federal ocean water quality standards that have been established for 2003.
- 3) Develop and implement a new boating safety education program to be rolled out in the Spring of 2003, targeting first-time boat owners. These owners are, on average, 68% more likely to be involved in accidents than owners with at least five years of boating experience.

The Plans for the Biennium outline major initiatives and goals for carrying out the mission during the next two state fiscal years.

“The Indiana Ocean is a public resource that we must all work together to preserve.”

- Admiral Harding

Special Initiatives

The Ocean Safety program is proposing a two-year initiative for improved equipment. Many of the boats and safety equipment currently being used are badly out of date. In addition, recent technological advances in equipment provide an opportunity to significantly enhance patrol effectiveness. Two existing coastal cruisers will be rehabilitated and one new cruiser will be purchased. Investments in new equipment to meet recently enacted federal water quality standards will be made.

FY 2003 – State Fiscal Year 2003.

State appropriations are made on a fiscal year basis.

Fiscal years begin on July 1st, and end on June 30th.

FY 2003 ended June 30th, 2003.

The program is currently operating at a level above the minimum federal standard that has been established.

Special Initiatives represent new or expanded services that require additional funding.

Appropriations indicate the amount of money authorized to be spent. In the case of federal and dedicated funds, appropriations may vary from actual expenditures, because those revenues may vary from the amount originally anticipated. Capital expenditures can also be made over multiple fiscal years.

