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Government Effectiveness Index: A Cross-State Survey

James Stergios
Director of Research
Pioneer Institute

Pioneer Institute for Public Policy Research
Center for **Restructuring Government**

85 Devonshire Street, 8th Floor • Boston, Massachusetts 02109
Tel: 617-723-2277 • *Fax:* 617-723-1880

www.pioneerinstitute.org

k-12 education
higher education
highways transit judiciary
state police corrections
financial administration

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—J.S.

Government Effectiveness Index: A Cross-State Survey

James Stergios, Pioneer Institute

INTRODUCTION

SINCE THE START OF THE REAGAN ADMINISTRATION,[1] we have witnessed momentum toward greater state prerogative over policy-making. The consolidation of "a large number of federal programs into nine block grants" gave state and local governments "far greater freedom to fashion programs."[2] In addition, the agency waiver process was eased, setting off a wave of (especially) state experimentation through most of the 1980s. The process culminated in the welfare reform law of 1996, which devolved control over welfare policy to the state level.

The same year, the Supreme Court's struggle to resolve its long-brewing debate over whether there were limits to federal power seemed to reach a watershed with the decision in *United States v. Lopez*. In fact, while sending some mixed signals, the modern Supreme Court has generally encouraged the power shift from national to state authority.[3] Rehnquist Court decisions concerning the commerce clause, commandeering, and sovereign immunity have sharply limited the powers of Congress and may signal a new era of American federalism.[4]

With new (or regained) state authority has come a corresponding increase in the profile of state-level policy-makers and organizations such as the National Governors Association, the National Conference of State Legislatures, and the American Legislative Exchange Council, among others. There has, in addition, been an explosion of state-level think tanks since the late 1980s. Ironically, the heightened status of state policy-making has led many states to arrogate local prerogatives. Many states have claimed power over traditionally local policy areas such as K-12 education. One finds evidence in recent data on government finance that states are controlling an ever greater share of the overall purse.[5]

As states exercise increased authority and freedom to innovate, there is growing interest in the comparative effectiveness with which individual states deliver key services. There have been a number of attempts to create a set of metrics capable of assessing various state activities.[6] While valuable, these efforts have not achieved some key objectives. They have not provided output measures to make the index useful for

The Government Effectiveness Index seeks to assess how Massachusetts is doing in comparison to five other states—Michigan, New Jersey, Ohio, Rhode Island, and Virginia—in regard to eight "core" functions of state government:

- ***K-12 education***
- ***higher education***
- ***highways***
- ***transit***
- ***state police***
- ***the judiciary***
- ***corrections***
- ***financial administration.***

researchers, nor addressed delivery of service from the point of view of the citizen. They have been more focused on "process and procedures,"[7] which are primarily of interest to agency managers. Taxpayers/citizens tend to see government in terms of what they put in (money and manpower) and the number and quality of services they receive.

The central objective of the Government Effectiveness Index (GEI) is to assess how Massachusetts is doing in comparison to other states. It seeks to provide measures of effectiveness based on the efficient use of resources (inputs as a function of quantity or output) and on performance outcomes (quality of output). It does so in regard to eight "core" functions of *state* government (functions common to most states): K-12 education, higher education, highways, transit, state police, the judiciary, corrections, and financial administration.

This first edition tests the GEI model on a sample set of six states: Massachusetts, Michigan, New Jersey, Ohio, Rhode Island, and Virginia. We chose the first four comparison states on the basis of their similarities to Massachusetts: climate, presence of industry, political culture with a commitment to organized labor, and, to some extent, geography. Virginia was included in part because of its specific differences from the other five states, but mainly because of its reputation for being a well-managed state. The restriction to six states is not a matter of principle or conception. Future editions will seek to incorporate changes spurred by the comments of readers; if feasible, we may seek to increase the number of states in the GEI sample.

"Efficiency" refers to the cost of a particular unit of service.

"Performance" denotes the quality of the service provided, defined variously according to the function and data available.

"Effectiveness" represents the sum of efficiency and performance—it considers the quality of the service provided at a particular cost.

Analysis and Methodology

Definitions

The index specifies the meaning of three concepts that are usually conflated in the measurement of services: efficiency, performance, and effectiveness. The GEI utilizes the three metrics to evaluate the work of the six states in the eight core areas. "Efficiency" refers to the cost of a particular unit of service. "Performance" denotes the quality of the service provided, defined variously according to the function and data available. "Effectiveness" represents the sum of efficiency and performance—it considers the quality of the service provided at a particular cost.

Analysis

Each state is evaluated on the three metrics across all eight functional areas based on the last year of available data (usually 1998). When several years of data were collected, and where appropriate, we have included comments on trends. We have also included some explanatory "Data Context" regarding the use of human resources.

There are limitations to the analyses of effectiveness. First, we have not provided a quantitative statement of the uncertainty of our measurement results. One would have to collect a great deal of additional information in order to measure error probabilities within the data. The information needed to develop margins of error is virtually impossible to collect, as it generally calls for information from nonrespondent cases. A second weakness is our manner of weighting the analyses. Our approach has been to select the most important available metrics and weight them equally. We hope that the release of the first edition of the GEI fosters a discussion about the proper weights to assign to the metrics (and also about the value of the metrics themselves).

It should be emphasized that each analytic table, and each corresponding rating, is a piece to a larger puzzle—effectiveness—and they are most appropriately interpreted as such. It may be fair to segregate the combined efficiency ratings from the combined performance ratings, but this must be done with caution and without reading too much into the findings. Ultimately, one should keep in mind that the underlying aim of this project is to look at the "forest" rather than the "trees."

The Data

Data were collected for five fiscal years, 1994 through 1998. Data sets from the first four years were collected for two purposes: first, to ensure that we employed non-aberrant data, and second, to enable us to comment on trends.

The principal investigator sought, and in most cases received, primary data from the state agencies. While states may seek to measure the same activities, data tracking intervals and sometimes even data definitions are often different. For example, all departments of corrections keep track of recidivism; however, some track the data every year, some every two or three years, and one state (Rhode Island) has tracked only one cohort of releasees. To avoid problems related to differing data collection practices, I have used federal data to the greatest possible extent. Relying mainly on federal data allows us to mitigate problems of definition and potential bias, and also to exploit the expertise of federal data collectors and statisticians.

To facilitate cross-state comparisons of expenditure values, we have normalized dollar figures to take into account variations in the cost of living.

In addition, to facilitate cross-state comparisons of expenditure values, we have normalized dollar figures to take into account variations in the cost of living.[8]

The data points we have used are by no means the best measures *imaginable*. Rather, they are the best measures *available*. In the K-12 education survey, for example, we would have liked complete sets of NAEP scores for all states in the sample, and in every possible subject; in an ideal research world we would even like to have data on how *prepared* the children are for the reponsibilities of citizenship. That having proven impossible, we have made do with partial performance data. Using only 4th-grade NAEP Mathematics scores as a barometer of elementary school achievement would be foolish; but coupling it with seven other similar measures, including combined SAT/ACT scores, provides a viable, general picture of performance (in this case, student achievement).

Appendix A provides the specific data sources for the tables included in this paper.

Rating Effectiveness

Cross-state comparisons

Each survey summary is comprised of five sections. After a brief description of the function and the data used to analyze it, we provide three sections with analytic results and ratings for each of the metrics (efficiency, performance, and effectiveness) based on the last year of available data (usually 1998). Each survey concludes with comments on trends, usually from FY 1994 to FY 1998. In the Summary of Findings, we have averaged the survey-specific effectiveness ratings to arrive at an overall effectiveness rating for each state.

The rating is based on a six-point scale, with one being the highest score and six the lowest.

The rating is based on a six-point scale, with one being the highest score and six the lowest. Wherever possible we have used national averages to peg the center of the ratings (i.e., 3.5). When national averages were not available, we made use of sample averages. The six-point rating scale corresponds to six segments of the overall range of efficiency and performance outcomes in each analysis. In each survey summary, efficiency is computed as the average of the cost-per-output metrics; performance is the average of the quality-of-output measures. We compute effectiveness as the average of efficiency and performance.

Same-state trend ratings

In computing trend ratings, we employ the same six-point scale. That said, given that these analyses are based on same-state data (and therefore uniform definitions and data collection methods), we compute the ratings with greater precision, taking each analytic table's results to the second decimal. In calculating efficiency trends, we peg the average rating (i.e., 3.5) to the average percentage change in unit cost in all the states in the sample. For performance trend ratings, we assume no change is the equivalent of an average rating and that negative trends are when performance gets worse, even if all of the states are experiencing the same trends.

SUMMARY OF FINDINGS

SURVEYS OF FIVE OF THE EIGHT core functions are complete, while one is complete except for one state. In the K-12 education, highways, and correction surveys, enough consistent data in both the efficiency and performance domains are available to produce an effectiveness rating for all six states. The survey of the judiciary yields sufficient data to provide effectiveness ratings for five states. For mass transit we computed effectiveness ratings for the three states that have agencies with administrative power. By design, the financial administration survey focuses on performance only. Due to a lack of consistent quality-of-output data, ratings in the public higher education and state police surveys have been limited to efficiency. In the future, efforts will be made to fill in these gaps.

Ratings Key

1 = very high
2 = high
3 = above average
3.5 average
4 = below average
5 = low
6 = very low

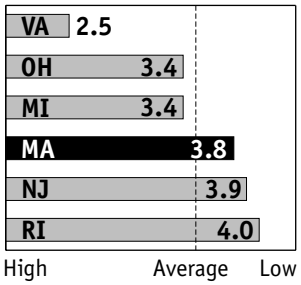
Drawing together the effectiveness ratings in each functional category, we can tabulate overall effectiveness rates for each state (see table I-1). According to this method of summarizing the data,Virginia exhibits the most effective overall administration, scoring an above average/high rating of 2.5 on our 6-point scale. Ohio and Michigan demonstrated average effectiveness, both states obtaining ratings of 3.4. Massachusetts, New Jersey, and Rhode Island demonstrated below average effectiveness, scoring 3.8, 3.9, and 4.0, respectively.

Table I-1. Overall effectiveness rating

Effectiveness

State	K-12	Highways	Transit	Judiciary	Corrections	Rating
Virginia	3.9	1.9		1.2	3.1	2.5
Ohio	4.3	2.2			3.6	3.4
Michigan	4.3	2.7		3.8	2.9	3.4
Massachusetts	2.8	3.2	4.3	4.5	4.3	3.8
New Jersey	5.1	5.0	4.6	2.1	2.9	3.9
Rhode Island	4.4	2.5	2.7	4.9	5.4	4.0

Figure I-1. Effectiveness comparison



If we break down effectiveness into its two components—efficiency and performance—we can make more detailed remarks. Table I-2 summarizes overall state efficiency on the basis of the last year of available data (usually fiscal year or calendar year 1998).

Table I-2. Overall efficiency rating

Efficiency

State	K-12	Higher Ed	Highways	Transit	State Police	Judiciary	Corrections	Rating
Virginia	4.0	2.8	1.0		3.5	1.0	3.5	2.6
Ohio	4.0	3.8	1.0		1.0		5.0	3.0
Rhode Island	4.0	2.0	2.5	1.0	3.3	5.0	4.8	3.2
Michigan	6.0	3.5	1.7		3.5	6.0	3.5	4.0
Massachusetts	3.5	2.8	5.0	5.8	4.0	3.5	4.0	4.1
New Jersey	6.0	6.0	5.7	4.7	4.0	2.0	3.5	4.6

Table I-3 summarizes overall state performance.

Table I-3. Overall performance rating

Performance

State	K-12	Highways	Transit	Judiciary	Corrections	Finance	**Rating**
Virginia	3.8	2.7		1.3	2.6	1.0	2.3
Michigan	2.6	3.7		1.7	2.4	4.0	2.9
Ohio	4.7	3.3		2.8	2.1	2.0	3.0
New Jersey	4.1	4.4	4.5	2.3	2.3	2.8	3.4
Massachusetts	2.0	1.4	2.7	5.5	4.5	5.3	3.6
Rhode Island	4.8	2.5	4.3	4.8	6.0	4.3	4.5

Massachusetts' effectiveness rating was a function of an average performance rating of 3.6 (fifth among the states in the sample), combined with a below average efficiency rating of 4.1 (again, fifth). One should note that this low efficiency rating cannot be explained by pointing to the Commonwealth's generally high cost of living, since all the cost data used in the study were normalized to take cross-state differences in overall price levels into account. It resembled New Jersey the most, in that New Jersey's average performance (3.4) came at an elevated price (efficiency rating of 4.6). Michigan also had a comparatively expensive state apparatus (with efficiency at 4.0), but its above-average performance (2.9) at least in part justified the expense.

Although geographically and culturally close to Massachusetts, Rhode Island obtained very different results overall. Its below average effectiveness rating was mainly due to its poor performance (4.5), while its efficiency was slightly above average (3.2).

Virginia and Ohio exhibited good marks on both efficiency and performance. The former earned high performance (2.3) and above-average/high efficiency ratings (2.6), the latter above-average efficiency and performance ratings (both 3.0).

Trends

Given the five years of data collected, the GEI can be used to make strong suggestions about recent trends in efficiency and performance. We can address such questions as, Have recent administrations—and their attempts at reform—had a measurable effect on outcomes? Are there any core areas of state administration that are slipping behind efficiency and performance levels in other states? Which states have shown the best trends? Which states can we look to for advice on how to improve our own delivery of these core services?

Table I-4 presents the trends in ***efficiency*** for six of the surveys (excluding the transit survey for its partial sample and the financial administration survey because it included no efficiency analyses). In terms of general trends, no state stands out as having dramatically reduced per-output costs since FY1994. Most states hover around the six-state average, with the exception of Massachusetts, which is allowing per-output costs to increase at a rate that should trigger some concern.

Ohio's unit cost trends were the best in the sample. Its trends for the state police and corrections functions, however, were toward higher than average increases in cost. The overall trends in Virginia, Michigan, and New Jersey were slightly better than average. The judiciaries in Virginia and Michigan displayed very good efficiency trends, as did the K-12 and state police systems in New Jersey. Rhode Island's unit cost trends were up to standard only in the judiciary, Massachusetts' solely in corrections.

Table I-4. Trends in efficiency

Efficiency

State	K-12	Higher Ed	Highways	State Police	Judiciary	Corrections	**Rating**
Ohio	2.00	2.75	1.63	4.10		3.95	2.89
Virginia	3.50	3.25	3.73	3.55	1.00	3.30	3.06
Michigan	4.50	3.50	3.00	4.00	1.25	2.65	3.15
New Jersey	1.00	5.00	2.73	1.00	5.75	3.55	3.17
Rhode Island	4.20	3.85	3.43	5.15	2.40	3.20	3.70
Massachusetts	5.00	3.75	5.40	6.00	5.30	3.35	4.80

Table I-5 provides a partial look at performance trends. Overall, the performance trends were rather positive. The highway performance trends were toward improvement for all of the states except New Jersey. Corrections trends were positive in all six states. Trends in financial administration were mixed, with New Jersey and Rhode Island standing out for recent performance. Financial administration trends in Michigan and Virginia were poor.

Table I-5. Trends in performance

Performance

State	Highways	Corrections	Financial Administration	**Rating**
New Jersey	3.79	2.25	2.00	2.68
Rhode Island	2.53	3.23	2.27	2.68
Massachusetts	2.47	2.57	3.50	2.85
Ohio	3.34	2.35	3.10	2.93
Michigan	3.30	1.88	5.53	3.57
Virginia	2.23	2.53	6.00	3.59

Obviously, we cannot suggest any overall state performance trends on the basis of the trends manifest in three surveys. We present the partial findings for their interest and hope that future versions of the Government Effectiveness Index will be able to provide a fuller treatment of performance trends.

Table I-6 summarizes the trends in effectiveness on the basis of the two functions for which we can calculate them—highways and corrections. While partial, these findings will prove helpful in discussing (below) some of the policy and diagnostic significance of this study.

Table I-6. Trends in effectiveness

Effectiveness

State	Highways	Corrections	**Rating**
Michigan	3.15	2.27	2.71
Ohio	2.49	3.15	2.82
Virginia	2.98	2.92	2.95
New Jersey	3.26	2.90	3.08
Rhode Island	2.98	3.22	3.10
Massachusetts	3.94	2.96	3.45

General Policy Significance

Static analysis

The GEI enables us to identify states that are effective, or have recently become more effective, in the delivery of certain services or the administration of certain functions. The snapshot of effectiveness gained from the last year of available data (see table I-1) suggests that state-level policymakers may want to look to Virginia as a point of reference when trying to craft reforms suitable to their own highway agency or judiciary systems. This is also true of Virginia's financial administration, for which we have only collected performance data.

A more basic point can be made here. If we only have two functions that stand out for effectiveness, then we need to experiment further in delivering services associated with the other functions in order to create "break-out" reforms from which all states can learn.

Other states can be cited for effective functions. For example, Ohio's highway and New Jersey's judicial administrations are effective. We can also note those state functions that had low effectiveness, such as Rhode Island's judiciary and correctional agency, or New Jersey's K-12 and higher education systems.

One could, in addition, use tables I-2 and I-3 to identify those states that obtained very high efficiency or performance ratings for certain functions, though this is probably reading too much into this study (given that the effectiveness of a cut in unit costs is only known when balanced by the consideration of any change in the quality of the output).

Dynamic analysis

The five years of data collected for the GEI allow us to go beyond the snapshot of static analyses and, in fact, to draw some policy lessons from dynamic (trend) analyses. For example, the effectiveness trends (see table I-6) indicate that reformers might want to look at the policies put into place, or having an impact, over the five-year survey in the Michigan Department of Corrections. Ohio's effectiveness trend in highway administration also deserves attention.

Policy Significance to the States

The GEI's static component allows us to identify broad areas of successful management, as well as areas where more work needs to be done. The dynamic analyses allow us, on a comparative basis, to gauge how effective policies have been. To state policymakers, who often fall prey to the parochial belief that their reforms and systems are *sui generis*, the GEI offers a bird's-eye view of their handiwork in the context of reform efforts and administrative cultures in other states. We present some of these findings state-by-state.

Massachusetts

www.state.ma.us

The Commonwealth's strongest function was its K-12 education system, which demonstrated good performance at average cost. The cost of public higher education was a little less than what might be expected given the programs and degrees offered by the state colleges and universities. Highway performance was good, but expensive. While some of Massachusetts' cost was related to the Central Artery/Tunnel project, the data indicated that the state's highway program has high structural costs. Trend analyses indicate that the highway trends (toward high cost and good performance) will continue. Transit costs were higher than those of the two other states with which we could make comparisons, while performance was slightly above the sample average. As of 1998 the state police were a little more expensive than the norm, but the rate at which costs have risen warrants some attention. The judiciary's costs were average, but performance was so much below the norm that we should begin looking to other states for ways to improve the delivery of justice. The correctional system was also rated below average on both cost per output and quality of service, but recent trends point to better performance and costs. The financial administration of the Commonwealth resembles corrections in that performance is lower than in any other state in the sample; that said, trends from 1994 to 1998 indicate that the worst is behind us and we are holding our own.

Michigan

www.state.mi.us

Michigan's strong functions were highways and corrections. The highway system was a mix of low cost and average performance, corrections average cost and high performance. Trend analyses suggest general improvement in both cost-per-output and quality of service for the highway agency, and even greater improvement for corrections (especially regarding cost containment). The state's weakest area was K-12 education, an extremely high cost system with better than average results. Trend analyses imply that the cost of education in Michigan will continue to outstrip that of all of the states except New Jersey. Higher education costs were in line with expectations, while those of the state police were on a par with sample averages. The judiciary was very expensive, but its performance was also superior. Recent trends indicate some success in reducing, or at least holding the line on, the price of justice. The performance of its financial administration was below average. Trend data suggest that financial administration will only get worse over the short term.

New Jersey

www.state.nj.us

New Jersey has two relatively two strong state administrative functions—the judiciary and (to a lesser degree) corrections. The judiciary exhibits both high efficiency and high performance, corrections average cost-per-output and high performance. Trend analyses, unfortunately, show that costs in the judiciary are spiraling upward at a very rapid rate. The good news is that the cost of corrections is in line with sample averages and that its performance is improving faster than in any of the other states. New Jersey's weak areas are K-12 education, highways, and transit. The public schools cost more than in any other state (trend data suggest they will continue to do so), and they rate low on student achievement. The same can be said of highways, except that trends indicate that the rate of increase in highway costs may have slowed. New Jersey Transit also costs a lot and performs below cross-state norms. Finally, financial administration's performance was above average, and trends indicate that its performance was improving faster than in any other state.

www.state.oh.us

Ohio

Ohio's strong function was the highway agency. It displayed low costs (with trends implying continued cost-cutting) and above average performance. In fact, Ohio performance was above average in all state functions but K-12 education. Its financial performance was especially good, with trend data suggesting that, as of 1998, it was still improving vis-à-vis the rest of the sample. The Ohio Department of Corrections also performed admirably, though at high cost. According to longitudinal data, OHDOC's performance was still getting better, but unit costs were also rising faster than in other states. The judiciary's performance was above average, but we lacked the financial data to assess unit costs. The Ohio Highway Patrol had low unit costs but this may have been mainly due to its restricted range of activities, especially when compared to states like Massachusetts and New Jersey. While Ohio's K-12 education system is not particularly expensive (above the national average in normalized dollars), its performance is worrisome. K-12 cost-per-output trends show Ohio doing a better job of keeping costs in check; unfortunately, we were unable to do the same on the performance side.

www.state.ri.us

Rhode Island

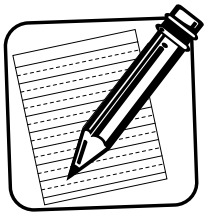
Rhode Island's strong functions were highways and transit. The highway administration was both low-cost and high-performance. Recent trends indicate that increases in cost-per-output have outpaced the sample average, but performance has also increased over the five years of the survey. The transit authority was more effective overall than either the MBTA or New Jersey Transit (though no judgment can be made about coverage of transit services). Another area of strength would seem to be Rhode Island's ability to hold the cost of its state colleges and universities below what one would expect given its programs and demographic data. The Ocean State's least effective functions were corrections, the judiciary, and K-12 education. All three functions had high relative costs-per-output and low to very low performance ratings. Correctional agency trends from 1994 to 1998 indicate a turn-around on both costs and performance. The judiciary also seems to be making progress on getting costs under control. Finally, although its 1998 rating was poor, Rhode Island's financial administration trends during the five years of the survey also demonstrate movement toward improved performance.

www.state.va.us

Virginia

Virginia's strong functions were highways and the judiciary. In these two areas, Virginia had very high efficiency ratings (both 1.0) and above average to high performance ratings (2.7 and 1.3). Corrections was also one of its more effective functions, with average costs and above average performance. Another function performing well was financial administration, which easily topped the other states in the sample on such measures as debt management, taxation, expenditures and bond ratings. Virginia did not have any worrisome functions, though K-12 education was below average in both efficiency and performance. If anywhere, Virginia's weaknesses are in its trends. Efficiency trends for highways and the state police, while below average, do not warrant too much concern. The most significant negative area to note is the decline in Virginia's financial administrative trends. Although still the best performer in 1998, between 1994 and 1998 Virginia's performance declined the fastest of any of the six states.

PUBLIC ELEMENTARY AND SECONDARY EDUCATIONAL SYSTEMS



PUBLIC ELEMENTARY AND SECONDARY education systems operate schools for children attending kindergarten through the twelfth grade and are funded through taxes and other public revenues.

An effective public school system will attain the best educational results for the financial resources dedicated to the system.

We have computed effectiveness by employing one financial measure (cost per student) and eight performance measures (6 NAEP test scores, college entrance exam scores, and dropout rates).

In terms of ***efficiency***, Massachusetts had the lowest cost per student—the equivalent of the national average—if we normalize the dollar amounts to account for differences in the cost of living. Ohio, Virginia and Rhode Island followed, in that order. Michigan and New Jersey had extremely high-cost systems. All of the states except for Massachusetts spent more per student than the national average.

Table 1-1. Efficiency of K-12 system

State	Cost per Student *($ normalized)*	**Rating**
Massachusetts	6,426	3.5
Ohio	6,600	4.0
Virginia	6,768	4.0
Rhode Island	6,891	4.0
Michigan	8,206	6.0
New Jersey	8,961	6.0
Average	*7,309*	
National Average	*6,443*	

Student ***performance*** was best in Massachusetts and Michigan, the only two states to obtain above-average ratings. Virginia's performance was slightly below average, while New Jersey, Ohio, and Rhode Island all performed badly. Massachusetts—the most efficient of the states—was best (or tied for best) in all but one performance category: SAT/ACT combined scores. The best performer in that category was Ohio, the second-most efficient state.

A lesson to draw from the efficiency and performance data is that spending more does not guarantee better results.

A weakness of our model is that in some functions, efficiency and performance across the sample, or even across the nation, are below standard. K-12 education is just such a function. While the Commonwealth's performance *is* better than the rest, its NAEP test scores (which are based on a 500-point scale) are nothing to brag about. We have therefore lowered by one point the ratings on all of the test score metrics, as experts agree that no state is performing very well.

Table 1-2. Performance of K-12 system

State	NAEP Gr-4 Math	NAEP Gr-4 Reading	NAEP Gr-8 Math	NAEP Gr-8 Reading	NAEP Gr-8 Writing	NAEP Gr-8 Science	SAT/ACT *(Combined)*	Dropout Rate	**Rating**
Massachusetts	229	225	278	269	155	157	1016	3.3	2.0
Michigan	226	217	277			153	1019		2.6
Virginia	223	213	270	266	153	149	1001	3.3	3.8
New Jersey	227	219	271				1004		4.1
Ohio			267				1022	5.4	4.7
Rhode Island	220	218	269	262	148	149	999	4.6	4.8
Average	*225*	*218*	*272*	*266*	*152*	*152*	*1,010*	*4.1*	
National Average	*224*	*212*	*271*	*261*	*148*	*148*			

The ***effectiveness*** rating is computed by taking the equally weighted average of the efficiency and performance ratings. Of the six states, Massachusetts' K-12 education system proved to be the most effective. Rhode Island, Michigan, Virginia, and Ohio had average effectiveness ratings. Michigan's poor efficiency rating was offset by its above-average performance rating. Higher than average spending per student in Rhode Island and Ohio obtained low student performance. Virginia's efficiency and performance ratings were both below average. New Jersey, with the highest expenditures and only mediocre performance, rated least effective.

Table 1-3. Effectiveness of K-12

State	Efficiency	Performance	**Rating**
Massachusetts	3.5	2.0	2.3
Virginia	4.0	3.8	3.9
Michigan	6.0	2.6	4.3
Ohio	4.0	4.7	4.3
Rhode Island	4.0	4.8	4.4
New Jersey	6.0	4.1	5.1

Trends

An analysis of trends is only possible regarding efficiency. The efficiency trends were best in New Jersey and Ohio. Virginia and Rhode Island came next. Michigan and Massachusetts increased spending per output greatly. Over three years of data (FY1994-1996), growth in cost per student was highest in Massachusetts, followed by Michigan, Rhode Island, Virginia, Ohio, and New Jersey. The national growth in cost per student over the same period was 7.5 percent.

Table 1-4. Efficiency trends, 1994-1996 (percentage change)

State	Cost per student (%)	**Rating**
New Jersey	3.9	1.00
Ohio	5.6	2.00
Virginia	7.8	3.60
Rhode Island	8.4	4.20
Michigan	8.8	4.50
Massachusetts	10.0	5.00
Average	*7.5*	

Longitudinal ***performance*** data were not consistent enough to ascertain performance trends.

Data Context: Increasing Budgets ≠ A Higher Proportion of Teachers

As table 1-4 makes clear, states are increasing per-student expenditures, often claiming that class size reduction is a main policy objective. As figure 1-A shows, school administrators in four of the six states have, in fact, lowered the number of students to total staff.

Unfortunately, administrators have not ensured that a high proportion of new hires be teachers. Over the fiscal years reported, full-time equivalent (FTE) teachers as a percentage of FTE staff have actually decreased in every state except Ohio (see figure 1-B). Michigan's large increase in expenditures coincided with a 2.2 percent reduction in the proportion of staff made up of teachers. In Massachusetts, the percentage was higher prior to the passage of the Education Reform Act of 1993.

In FY 1994 61.9 percent of all employees in private schools were teachers. Private schools with religious orientations fared even better: 64.2 percent of Catholic school employees were teachers and 65.2 percent of those in schools with "other religious orientations" were teachers. As figure 1-C shows, in 1997, of the six states in our sample only in Rhode Island did the public system approximate the proportion of the workforce made up of teachers found in private schools.

Figure 1-A. Students per FTE staff

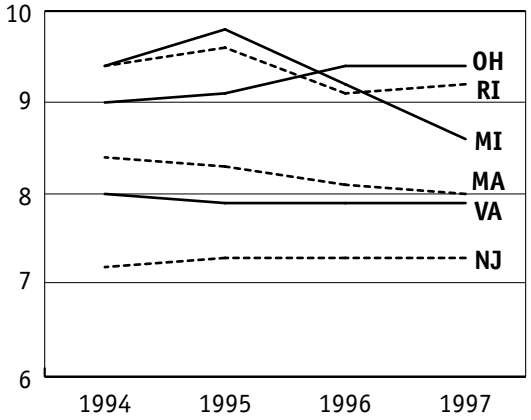


Figure 1-B. FTE teachers as a percentage of FTE staff, trends 1994-1997

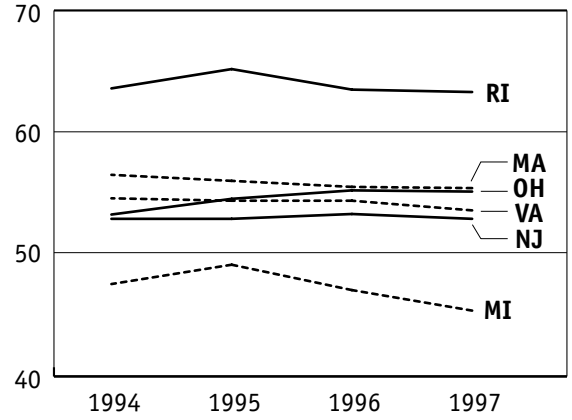
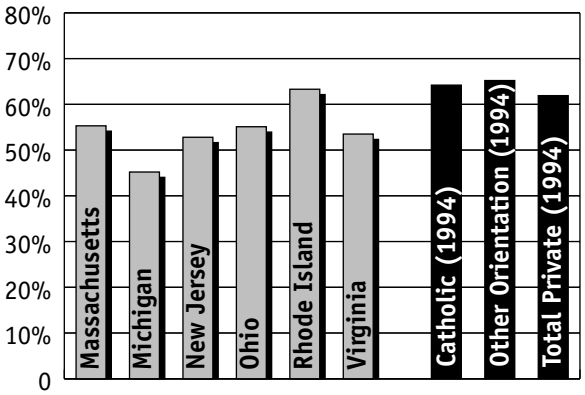
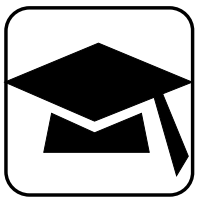


Figure 1-C. FTE teachers as a percentage of FTE staff, 1997





HIGHER EDUCATION

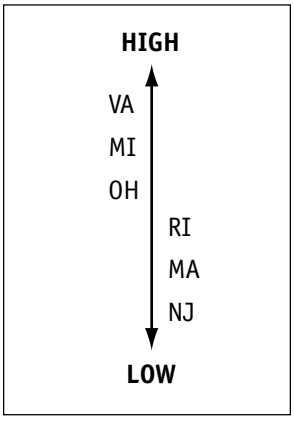
PUBLIC INSTITUTIONS OF HIGHER LEARNING are funded from tax revenues, fees, and tuition.[9] An efficient public system of higher education will make use of the fewest financial resources to provide the best education possible to students.

As we lack sufficient data on student achievement to carry out performance analyses, we can hazard neither a performance rating nor an effectiveness rating. Our analysis will concentrate on efficiency. To assess efficiency we present two financial resource measures (expenditures per student and expenditures per degree).

Data on total expenditures in private institutions often include capital costs and debt payments, and we would have preferred to employ similar data here. Unfortunately, those data were not available. We have, therefore, used current fund expenditure data to assess efficiency.[10]

To evaluate ***efficiency*** with due subtlety, in addition to normalizing dollar amounts to account for cost-of-living differences, we have scaled the scores according to cost-related institutional differences. We present the *probable hierarchy of costs* in figure 2-A as a tool that will aid in scaling our rating to account for differences in degree programs offered and student body composition.[11]

Figure 2-A. Probable cost hierarchy



While highly comparable, these six public systems of higher education have different cost structures. This is because of differences in programs offered, enrollments, and the quality of degrees conferred. Based on an analysis of the above demographic and institutional differences, we propose the probable hierarchy of costs in figure 2-A.

Scaling the efficiency ratings in accordance with figure 2-A, we can present our findings in table 2-1. According to both metrics, Rhode Island is more efficient than its system's demographic and institutional characteristics would have led us to expect. Massachusetts and Virginia also have lower costs per student than expected, but their efficiency on the cost per degree metric is mediocre. Michigan, on the other hand, has good cost-per-degree efficiency, but its per-student costs are higher than expected.

Table 2-1. Efficiency of higher education

State	Cost per FTE Student *($ normalized)*	Cost per Degree *($ normalized)*	**Rating**
Rhode Island	12,183	52,947	2.0
Massachusetts	11,693	54,980	2.8
Virginia	17,962	85,348	2.8
Michigan	19,265	71,112	3.5
Ohio	16,005	77,013	3.8
New Jersey	14,551	73,825	6.0
Average	*15,277*	*69,204*	

New Jersey's efficiency was the lowest on both measures. The relatively high proportion of part-time students in New Jersey's system would lead one to expect it to be the least expensive of the six state systems of higher education; unfortunately, it is extremely expensive by both measures.

Data Context: More Staff per Student ≠ More Faculty per Student

Not surprisingly, Rhode Island had to manage its human resources efficiently to obtain such a high efficiency rating. It did not overinflate staff levels, keeping the ratio of FTE students to FTE staff high (see figure 2-B).[12] Virginia was the best on this measure. Massachusetts was the worst, indicating a relatively high number of staff involved in administration or student services. Michigan, New Jersey, and Ohio were also below the sample average.

Virginia and Rhode Island did not overinflate staff levels.

Michigan and Rhode Island also demonstrated good allocation of staff, maximizing the proportion of the total staff made up of faculty (see figure 2-C).[13] Massachusetts also performed well on this measure. New Jersey was again below the sample average, indicating a human resource emphasis on nonacademic activities.

Michigan, Rhode Island, and Massachusetts emphasized faculty in human resource decisions.

Figure 2-B. FTE students per FTE staff

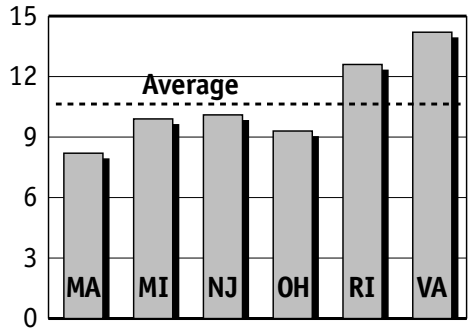
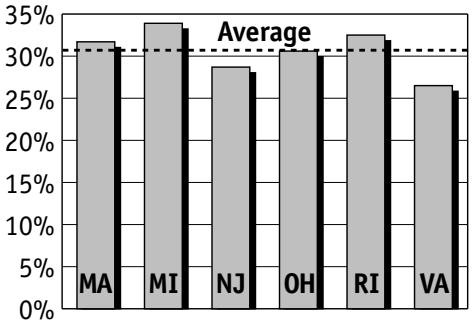


Figure 2-C. FTE Faculty as a percentage of FTE staff, 1996



Trends

As was the case in the K-12 survey, trend analyses in higher education are limited to the consideration of financial resource management. Even here, we can only hazard suggestions about the trends, as the data sets often consist of only two years of data. With these caveats, we can note that Ohio's ***efficiency*** trends were the best. It kept increases in current-fund expenditures per student relatively low and the cost per degree relatively stable. With the exception of New Jersey, trends in all of the other states fell somewhere in the middle.

Michigan's increases in current-fund expenditures per student were high, while its cost per degree actually decreased 9 percent between 1994 and 1996; Virginia's trends were exactly the opposite. New Jersey's trends were the worst: its increase in current-fund expenditures per student was average for the six-state sample, but its cost per degree jumped 9 percent in just two years.

Table 2-2. Efficiency trends, 1994-1996 (percentage change)

State	Cost per FTE Student (%)	Cost per Degree (%)	Rating
Ohio	8.4	0.4	2.75
Virginia	6.6	7.2	3.25
Michigan	15.9	-8.9	3.50
Massachusetts	13.1	0.7	3.75
Rhode Island	12.4	1.7	3.85
New Jersey	10.4	8.9	5.00
Average	*11.1*	*1.7*	

HIGHWAY SYSTEMS [14]

HIGHWAY SYSTEMS REFER TO STATE-OWNED highway systems. An effective highway agency provides the service most appropriate to the state's needs while utilizing the lowest possible level of financial resources. Strong agency performance entails good administration, planning, maintenance, and construction.[15]

We have evaluated effectiveness on the basis of three financial resource measures (cost per mile, administrative cost per mile, and maintenance cost per mile) and seven performance measures (poor condition on various types of roadways, congestion, bridge condition, fatalities, and narrow roads).

Table 3-1 exhibits the outcomes of the ***efficiency*** analyses for FY1998. Virginia, Ohio, and Michigan were clearly the most efficient states. Rhode Island's highway agency was also comparatively efficient. Massachusetts and New Jersey had very low efficiency ratings.

Table 3-1. Efficiency of highway agency, $000s

State	Cost per Mile *($ normalized)*	Administrative Cost per Mile *($ normalized)*	Maintenance Cost per Mile *($ normalized)*	**Rating**
Virginia	44	3	12	1.0
Ohio	107	7	14	1.0
Michigan	187	7	21	1.7
Rhode Island	251	9	35	2.5
Massachusetts	735	44	50	5.0
New Jersey	597	67	96	5.7
Average	*320*	*23*	*38*	

Massachusetts had the highest per-mile (nominal) expenditures at $837,000. New Jersey outspent the four remaining states with per-mile total expenditures of $680,000. Among the others, Rhode Island led with costs of $278,000 per mile, while Michigan, Ohio, and Virginia ranged from $177,000 to $42,000 per mile. One could suggest that Massachusetts' high total disbursements per mile figures were due to the numerous projects related to the Central Artery/Tunnel. In part, this is true. But a look at administrative costs per mile indicates other potential explanations. In 1998 New Jersey spent $67,000 and Massachusetts $50,400 per mile on administrative costs. The four remaining states spent between $3200 and $9700 per mile on administrative costs.

Using multiple efficiency measures allows us to see beyond the bumps in expenditures-per-mile data as a result of large-scale capital projects, such as the Central Artery/Tunnel Project in Massachusetts.

New Jersey's high costs persisted even on highway maintenance, where per-mile spending was $109,000. Massachusetts and Rhode Island followed with per-mile disbursements of $57,400 and $38,600, respectively. Michigan, Ohio, and Virginia each disbursed between $11,000 and $19,000 per mile. Below we show the normalized dollar values and each state's efficiency rating.

Performance was best in Massachusetts. Rhode Island came next, followed closely by Virginia. Ohio's performance was slightly better than average, Michigan's slightly worse. New Jersey's performance was poor. Massachusetts' performance was good on all measures, except bridge maintenance (where it was average). Rhode Island fared well on all of the measures except congestion (average) and bridges (worst condition). Virginia's performance rating was adversely affected by its high fatality rate and high percentage of rural roads that were too narrow. Ohio's highway maintenance was

Table 3-2. Performance of highway agency

State	Interstate Rural *(% poor condition)*	Interstate Urban *(% poor condition)*	Arteries Rural *(% poor condition)*	Congestion *(%)*	Bridges *(% deficient)*	Fatalities *(Per 100 M. vehicle miles)*	Narrow Rural Roads *(% under 12 ft. wide)*	**Rating**
Massachusetts	0.6	1.0	0.7	47.0	36.9	0.78	5.5	1.4
Rhode Island	0.0	2.2	0.0	54.3	61.6	0.93	10.8	2.5
Virginia	0.6	4.7	1.3	49.6	25.1	1.32	27.4	2.7
Ohio	0.0	0.7	0.2	61.9	39.8	1.36	20.1	3.3
Michigan	8.9	14.8	1.3	51.4	32.1	1.46	22.9	3.7
New Jersey	20.4	37.7	13.7	61.3	29.4	1.15	1.7	4.4
Average	*5.1*	*10.2*	*2.9*	*54.3*	*37.5*	*1.17*	*14.7*	

generally very good, but it rated average or (sometimes much) worse on congestion, bridge condition, fatalities and narrow roads. New Jersey's performance on the three highway maintenance measures was by far the worst; it also fared poorly on the congestion and narrow roads measures.

The ***effectiveness*** ratings for the highway agencies ranked, from first to last, Virginia, Ohio, Rhode Island, Michigan, Massachusetts, and New Jersey. All of the states except New Jersey were rated above average in effectiveness.

Table 3-3. Effectiveness of highway agency

State	Efficiency	Performance	**Rating**
Virginia	1.0	2.7	1.9
Ohio	1.0	3.3	2.1
Rhode Island	2.5	2.5	2.5
Michigan	1.7	3.7	2.7
Massachusetts	5.0	1.4	3.2
New Jersey	5.7	4.4	5.0

Trends

Ohio's ***efficiency*** trends were the best in the sample. New Jersey and Michigan also exhibited trends toward improvement. Trends in Rhode Island and Virginia approximated the sample average. Massachusetts' cost-per-output trends should elicit concern.

More specifically, costs per mile exploded in Massachusetts and Michigan. Unlike the Commonwealth, however, Michigan was able to reduce per-mile administrative and maintenance costs. New Jersey experienced significant changes in its per-mile cost. From 1994 to 1996 reported administrative costs in that state dropped from $85,000 to $40,000; then, after remaining stable in 1997, these costs increased significantly in 1998, to $76,000. Michigan's administrative costs dropped from $10,000 to $6,000 per mile and remained in four figure, like three of the other states (Ohio, Rhode Island, and Virginia).

Ohio reduced per-mile administrative and maintenance costs the most. Massachusetts' maintenance costs per mile jumped nearly 70 percent.

Table 3-4. Efficiency trends, 1994-1998 (percentage change)

State	Cost per Mile (%)	Administrative Cost per Mile (%)	Maintenance Cost per Mile (%)	**Rating**
Ohio	18.0	-42.9	-31.2	1.63
New Jersey	1.5	-11.2	8.0	2.73
Michigan	49.4	-37.8	-5.7	3.00
Rhode Island	-6.5	36.1	4.3	3.43
Virginia	28.7	15.5	-2.5	3.73
Massachusetts	64.7	5.8	69.8	5.40
Average	*26.0*	*-5.8*	*7.1*	

Only Massachusetts and Ohio displayed any significant variation in per-mile maintenance disbursements over the five-year period, Ohio manifesting a 31.2 percent reduction in costs (from $20,500 to $14,100 per mile), while Massachusetts' per-mile maintenance costs shot up nearly 70 percent (from $33,800 to $57,400).

On the ***performance*** side, the five-year trends were best in Virginia, Massachusetts, and Rhode Island. In Michigan and Ohio, they were toward slight improvement. New Jersey was the only state with poor performance.

More specifically, Virginia showed the largest improvement on both interstate road condition metrics and on the percentage of congested urban interstate. Of all the states, New Jersey is the only one to exhibit declining performance—its rating adversely affected by outcomes on the three road condition measures.

Massachusetts' performance was consistent, its best outcome being the almost 10 percent reduction in its already low fatalities rate. Rhode Island performed well except for the 7 percent jump in fatalities and the 10 percent increase in the number of bridges that were deficient.

Table 3-5. Performance trends, 1994-1998 (percentage change)

State	Interstate Rural *(% poor condition)*	Interstate Urban *(% poor condition)*	Arteries Rural *(% poor condition)*	Congestion *(%)*	Bridges *(% deficient)*	Fatalities *(Per 100 million vehicle miles)*	Narrow Rural Roads *(% under 12 ft. wide)*	**Rating**
Virginia	-9.4	-2.1	-1.5	-24.8	-6.1	8.2	-0.1	2.23
Massachusetts	0.0	-0.7	-8.4	-9.6	-4.9	-9.3	-5.8	2.47
Rhode Island	-4.8	-1.9	-36.5	-23.3	9.9	6.9	-12.4	2.53
Michigan	3.9	9.3	-2.6	-8.0	-11.9	-1.4	0.5	3.30
Ohio	0.0	-1.3	-1.0	-2.8	-3.7	10.6	-4.3	3.34
New Jersey	13.0	18.1	13.7	-14.5	-8.4	0.9	-10.4	3.79

TRANSIT

OF THE SIX STATES, ONLY Massachusetts, New Jersey, and Rhode Island administer transit systems.[16] Some factors, such as route placement and vehicle type,[17] which are determined by the political process, are beyond the scope of this analysis. They are taken as givens and will obviously have a large impact on system effectiveness. That said, all transit agencies must provide the most appropriate service to meet the state's needs, taking care to provide the best service in core areas—administration, planning, on-time performance, maintenance, and safety—while utilizing the lowest level of financial resources possible.

We compute effectiveness using six measures: three financial measures (cost per vehicle mile, administrative costs as a percentage of total operating costs, and vehicle miles per dollar spent on maintenance) and three performance measures (collisions per vehicle mile, crimes per trip, and road calls per trip).

The results of the transit analyses must be considered tentative. A larger sample—or national averages—would permit one to gauge whether Rhode Island's is the most effective of three poor systems, or whether it is objectively performing well.

A larger sample—or national averages—would permit one to gauge whether Rhode Island's is the most effective of three poor systems, or whether it is objectively performing well.

Rhode Island is the most ***efficient*** of the three state transit systems evaluated. It is the cheapest in terms of total cost, most frugal in administrative expenditures, and most efficient with its maintenance dollars (see table 4-1). New Jersey is the second-most efficient and placed second on all of the measures. Massachusetts had low efficiency on all of the measures.

Table 4-1. Efficiency of transit system

State	Cost per Vehicle Mile[18] *($ normalized)*	Admininstrative Cost to Total Operating Cost *(%)*	Vehicle Miles per Maintenance Dollar *(normalized)*	**Rating**
Rhode Island	4.90	12.45	0.71	1.0
New Jersey	6.55	17.30	0.53	4.7
Massachusetts	8.94	19.04	0.55	5.8
Average	*6.80*	*16.26*	*0.6*	

Productivity, measured in annual vehicle miles per employee, mirrors the outcomes on the three cost metrics in Table 4-1. Rhode Island's productivity is the highest at 14,109 annual vehicle miles per employee, followed by New Jersey (12,634) and Massachusetts (12,345).

Massachusetts displayed ***performance*** above the sample average, Rhode Island and New Jersey below average to poor performance (see table 4-2). Massachusetts had the fewest collisions and road calls of the three states. Rhode Island had the fewest crimes. New Jersey's performance was below average on collisions and crimes, but slightly above average on maintenance.

Table 4-2. Performance of transit system

State	Collisions per 1 Million Vehicle Miles	Crimes per 1 Million Trips	Road Calls per 1 Million Trips	**Rating**
Massachusetts	3.2	4.7	11	2.7
Rhode Island	10.2	0.2	240	4.3
New Jersey	9.4	3.9	102	4.5
Average	*7.6*	*2.9*	*118*	

Table 4-3 shows that Rhode Island's bus-based system is the most ***effective***. New Jersey and Massachusetts have equally poor effectiveness ratings.

Table 4-3. Effectiveness of transit system

State	Efficiency	Performance	**Rating**
Rhode Island	1.0	4.3	2.7
Massachusetts	5.8	2.7	4.3
New Jersey	4.7	4.5	4.6

Trends

Massachusetts' ***efficiency trends*** were better than in either New Jersey or Rhode Island (see table 4-4). Massachusetts exhibited improvement on the cost-per-mile and miles-per-maintenance dollar metrics. New Jersey displayed little change in performance on the cost-per-mile and administrative cost metrics, but it was not getting as many miles out of its maintenance dollars. Rhode Island showed a spike in cost per mile and a sharp drop in the number of vehicle miles it got out of its maintenance budget.

Table 4-4. Efficiency trends, 1994-1998 (percentage change)

State	Cost per Vehicle Mile	Administrative Cost to Total Operating Costs (%)	Vehicle Miles per Maintenance Dollar	**Rating**
Massachusetts	-2.9	6.6	1.6	2.67
New Jersey	2.2	0.9	-13.3	3.33
Rhode Island	11.0	-4.0	-27.5	4.33
Average	*3.4*	*1.2*	*-13.0*	

Clear trends are not available for system ***performance***.

STATE POLICE

DUE TO THE LACK OF CONSISTENT performance data on the variety of state police operations, in this first edition of the GEI, we focused our performance analyses on a core state police function: patrolling state highways.[19] In the future, a more complete set of performance measures will be sought in order to construct a more rounded definition of the state police function. This is especially needed as some state police forces, such as that of Massachusetts, are reducing their concentration on highway patrol and beginning to focus on crime lab work and other functions. Our ability in future editions of the GEI to capture more fully the already multiple functions of forces, like the one in New Jersey, will depend on the cooperation of the state police forces in our six-state sample.

In the future, a more complete set of performance measures will be sought in order to construct a more rounded definition of the state police function.

We have calculated efficiency using two financial measures (expenditures per mile patrolled, expenditures per capita). We have attempted to measure performance on the basis of one performance measure (fatalities on state police-patrolled roadways). The lack of consistent performance data will preclude us from calculating viable performance and effectiveness ratings.

We can, however, make some suggestions regarding ***efficiency*** (see table 5-1). According to the metrics used, Ohio was easily the most efficient state. Virginia, like Ohio, had extremely low cost-per-mile figures. This is probably due to the extensive rural highways in both states. On the other hand, Virginia's state police had very high per-capita costs. In addition, Ohio's low cost-per-mile outcome can be explained by the fact that the Ohio Highway Patrol does not engage in many other activities besides ensuring the safety of the state's highways.[20] Rhode Island was the only other state to rate above the sample average. Michigan and Virginia had outcomes in line with sample averages, Massachusetts and New Jersey had below average efficiency ratings.

Table 5-1. Efficiency of state police

State	Cost per Mile *($ normalized)*	Cost per Capita *($ normalized)*	**Rating**
Ohio	2,423	18.70	1.0
Rhode Island	24,993	30.10	3.3
Michigan	27,925	27.40	3.5
Virginia	5,947	50.50	3.5
Massachusetts	33,692	38.50	4.0
New Jersey	63,204	25.80	4.0
Average	*26,364*	*31.80*	

Beyond impeding our investigation of the range of services performed by the state police systems, the lack of ***performance*** analyses keeps us from grasping whether the efficient state police systems, such as Ohio's and Rhode Island's, outperform their colleagues in other states. Our performance data do indicate, however, that Ohio had a higher fatality rate on highways patrolled by the state police than was to be found in Massachusetts (see table 5-2). We refrain from presenting ratings without more complete data sets.

Table 5-2. Performance of state police

State	Fatalities per 100,000 Residents
Massachusetts	1.93
Ohio	5.89
Average	*3.91*

Due to the partiality of the performance data, we cannot use the analytic results to calculate an overall effectiveness rating.

Trends

New Jersey's ***efficiency*** trends display actual reduction in cost per unit of output. New Jersey cut costs between 14 and 17 percent on both measures. Virginia's unit cost trends indicate cost increases in line with the six-state average. Michigan and Ohio obtained similar results. They exhibited the largest increases in expenditures per mile (26.6 and 34.4 percent) and expenditures per resident (28.1 and 33.7 percent). No performance trend results are available.

Table 5-3. Efficiency trends, 1994-1997 (percentage change)

State	Cost per Mile	Cost per Capita	**Rating**
New Jersey	-14.3	-16.7	1.00
Virginia	15.2	12.6	3.55
Michigan	18.8	17.2	4.00
Ohio	18.5	18.1	4.10
Rhode Island	26.6	28.1	5.15
Massachusetts	34.4	33.7	6.00
Average	*14.9*	*12.8*	

THE JUDICIARY

IN THIS SURVEY, WE ASSUME that the judicial systems examined provide the most impartial justice possible. An effective judiciary provides the swiftest justice, while utilizing the lowest possible amount of financial resources.

To note when using these analyses: We have not controlled for differing levels of litigiousness in the states,[21] nor have we taken into consideration political and institutional differences such as the presence of nominated or elected judges.[22] Uneven availability of the data for fiscal year 1998 often restricts the analyses to fiscal years 1994 to 1997. To the extent possible we have removed family and juvenile court data from the analyses, as complete data on these cases are not available. These cases also have the most anomalous case aging characteristics. For similar reasons, we will also remove housing court cases from the sample in certain analyses.

We employ eight measures to compute effectiveness: two financial resource measures (expenditures per case filing, expenditures per resident) and six performance measures (civil and criminal clearance rates, and case aging data).

Across the nation, case filings grew at a rate of approximately 1.5 to 2.0 percent between 1994 and 1997, to reach over 89 million. This far outstrips the 2.3 million federal court filings in 1997.[24] To keep up with the increase in filings, the state courts are behooved to improve performance or face the prospect of disorder in the courts.

Both per-resident and per-filing costs were lowest in Virginia (see table 6-1). While the low per-filing cost can be in part attributed to Virginia's loose definition of filings, the per-resident cost is indicative of a high level of efficiency. New Jersey also demonstrated a high level of ***efficiency*** on both measures—its per-resident and per-filing costs were 22 percent and 27 percent lower than Massachusetts'. The cost of justice was astronomical in Rhode Island (especially per-filing) and in Michigan (both measures). Ohio's efficiency could not be ranked because of the lack of reliable expenditure data.

Table 6-1. Efficiency of judiciary

State	Cost per Resident *($ normalized)*	Cost per Filing[23] *($ normalized)*	**Rating**
Virginia	33.90	106	1.0
New Jersey	39.60	221	2.0
Massachusetts	51.00	303	3.5
Rhode Island	53.00	490	5.0
Michigan	66.60	559	6.0
Average	*48.80*	*336*	

Going with the best and most complete data sets available, we can rate the ***performance*** of judiciaries in our six-state sample on the basis of clearance rates and case aging data (see table 6-2). From best to worst, the states are Virginia and Michigan, New Jersey, Ohio, Rhode Island and Massachusetts.

The* case clearance rate *refers to the number of dispositions relative to new cases filed.

The ***case clearance rate*** refers to the number of dispositions relative to new cases filed. We provide clearance analyses of civil cases, criminal cases, and cases before intermediate courts of appeal (IACs). Caseload clearance is especially significant if one considers the growth rate in the number of civil filings in state courts. Shown as a percentage, the rate can exceed 100, in which case the court is clearing its backlog.

Of all of the states, Virginia had the most consistently high performance in clearing cases; Massachusetts had the lowest. Ohio also performed well on the case clearance measures. Massachusetts' consistently low performance is cause for concern and further study.

Case aging *is the percentage of all cases that have not been resolved after a certain time period.*

Case aging is the percentage of all cases that have not been resolved after a certain time period. We have provided three case aging metrics: the percentage of civil cases over two years old, the percentage of civil cases over three years old, and the percentage of criminal cases over two years old.

Michigan's performance on case aging is very high. On all of the metrics it rates the highest, indicating that even if its clearance rates were not the best in the sample, cases are not getting "dead-ended" in the judicial system. New Jersey's numbers would indicate great ability to move cases through its system. Case aging statistics in both Massachusetts and Rhode Island indicate problems with old cases getting stuck in the halls of justice. Civil and criminal courts in Massachusetts, it would seem, have equal difficulty getting a large number of cases disposed in a timely manner. Rhode Island's difficulties are limited to the civil courts.

Table 6-2. Performance of judiciary (percent)

State	Clearance Rate: Civil[25]	Clearance Rate: Criminal[26]	Clearance Rates in IACs	% Civil Cases > 2 Years[27]	% Civil Cases > 3 Years	% Criminal Cases > 2 Years	**Rating**
Virginia	101.0	102.7	107.0				1.3
Michigan	99.1	95.4	183.0	4.0	<4.0	0.9	1.7
New Jersey	101.0	94.4	100.0	14.0	5.0	2.0	2.3
Ohio	98.3	100.1	100.0				2.8
Rhode Island	94.3	97.6		41.0	36.0	3.0	4.8
Massachusetts	93.8	81.7	81.0	16.4~51.7	16.4	9.1	5.5
Average	*97.9*	*95.3*	*114.0*	*18.85~27.7*	*15.4*	*3.8*	

Data Context: Measuring Performance = Better Performance

Massachusetts' One-Trial project shows the extent to which attention to measurable performance results—in this instance ***case aging***—can help to foster better performance. Only the Superior Courts in Norfolk and Middlesex Counties are participating. The percentage of civil cases pending for more than two years in the participating Superior Courts was 4.2 percent, for more than three years less than 0.3 percent.[28] These percentages are markedly lower than in the Superior Court as a whole.

The ***effectiveness*** rating is computed by giving equal weight to analyses of efficiency and performance (see table 6-3). Due to the gaps in data, it is prudent not to present an effectiveness rating for Ohio. Virginia clearly had the most effective judiciary system. New Jersey's rating was just above average, Michigan's average. The judiciaries in Massachusetts and Rhode Island were the least effective in the sample.

Table 6-3. Effectiveness of judiciary

State	Efficiency	Performance	**Rating**
Virginia	1.0	1.3	1.2
New Jersey	2.0	2.3	2.1
Michigan	6.0	1.7	3.8
Massachusetts	3.5	5.5	4.5
Rhode Island	5.0	4.8	4.9
Ohio		2.8	

Trends

Virginia's ***efficiency*** trends were the best in the sample, followed almost immediately by Michigan's (see table 6-4). These two states were well below the sample averages for increases in the "price" of the service. Rhode Island's trends were slightly better than the sample averages. Since 1994 the price of justice in Massachusetts and New Jersey has gone up by from 25 to 35 percent on a per-filing basis, more if we calculate on a per-resident basis. (See text box below for further comment.)

Table 6-4. Efficiency trends (percentage change)

State	1994-1998 Cost per Resident	1994-1997 Cost per Filing	**Rating**
Virginia	14.9	4.9	1.00
Michigan	14.9	7.6	1.25
Rhode Island[29]	19.9	12.7	2.35
Massachusetts	37.3	25.4	5.30
New Jersey[30]	34.3	35.4	5.75
Average	*24.3*	*17.2*	

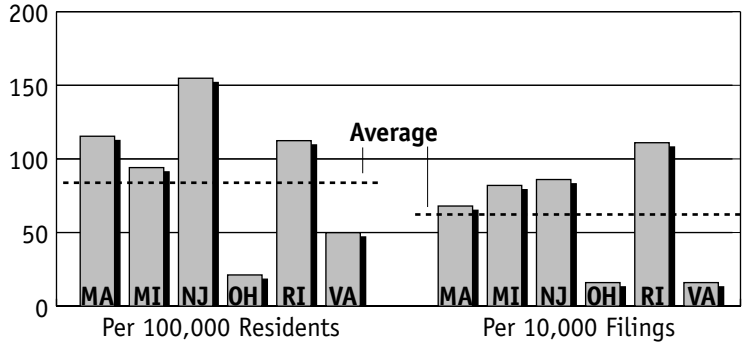
Although we often had four-year sets of data, the trends were often unclear; therefore, we refrain from numerical suggestions about overall ***performance*** trends. That said, the data do indicate generally positive civil case clearance trends in all of the states except Massachusetts. The criminal case clearance trends in Michigan and New Jersey were negative; in the other four states there was no significant movement in the numbers. Trends in case aging were unclear on the civil side. Criminal case aging in New Jersey improved, dropping from 4 percent of all criminal cases being over two years old in 1994 to 2 percent in 1998. After four years of worsening criminal case aging statistics in Massachusetts, there was a drop from 19.8 percent of all cases being more than two years old to 9.1 percent. Without subsequent data we cannot tell if this was a one-time drop.

Data Context: Lower Productivity = Higher Cost

The cost of justice in Virginia was low, while in Michigan it was very high (see table 6-1). The cost trends in both states were toward slight increases (see table 6-4). New Jersey fared well on the static efficiency metrics in table 6-1, but its cost trends were both anomalously high. Massachusetts' cost of justice was high, and the trend analysis in table 6-4 indicated that they were rising nearly as fast as New Jersey's. A look at productivity will help elucidate current costs and future cost trends.

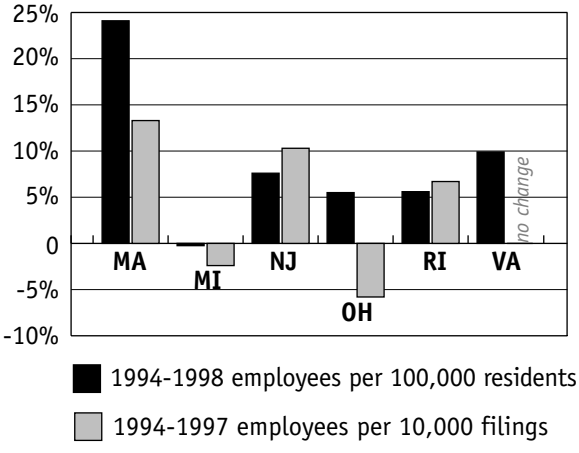
New Jersey has a much high number of employees per 100,000 residents than any other state in the sample (see figure 6-A). At 154.8, it is nearly double the sample average. There are many explanations for this, for example, the number of cases involving non-New Jersey residents and the proximity to large metropolitan areas with higher filing rates. The more significant ratio in terms of measuring productivity is staff to filing. While above the sample average, the staffing-to-filing ratio in New Jersey is not incongruously high. Massachusetts, Michigan, and Rhode Island had similar levels of productivity in 1998. Virginia (and Ohio) had relatively high levels of productivity (i.e., low staff per filing), which explains the low cost of justice in the the Commonwealth of Virginia.

Figure 6-A. A snapshot of judicial staffing, 1998



A look at productivity trends (see figure 6-B) will help explain the skyrocketing cost of justice in New Jersey and Massachusetts, and to some extent in Rhode Island (see table 6-4). Again, while staffing per 100,000 residents is an important consideration, the staffing-to-filing ratios are more significant. Any decreases in staff per filing should be interpreted as increases in productivity. New Jersey, on the basis of three years of data (1995-1997), shows a staff increase of 7.6 percent per resident and 10.4 percent per filing. Massachusetts exhibited increases of 24.1 percent in employees per resident and 13.3 percent in employees per filing. With such decreases in productivity, the cost of justice in both states will continue to rise sharply. On the other hand, by increasing productivity, as in Michigan—or at least holding the line in Virginia (no change in staff per filing)—the cost of justice will be more affordable.

Figure 6-B. Staffing trends, 1994-1998 (percentage change)



CORRECTIONS

CORRECTIONAL AGENCIES AND FACILITIES examined are limited to prisons (and jails housing the overflow of prison inmates). For the purpose of this survey we have defined *inmates* as those in adult correctional facilities, at all levels of security.

Effective corrections agencies use the fewest financial resources, provide sufficient housing for inmates, and ensure the safety of the public at large, the inmates, and the correctional officers.

We make use of six measures to assess effectiveness: one financial resource measure (cost per inmate), one administrative measure (percent of capacity used), and four performance measures (escapes per inmate, inmate misconduct per inmate, assaults per inmate, and recidivism rates).[31]

No state fared well on the ***efficiency*** analyses (see table 7-1). New Jersey and Massachusetts had average ratings. The other four states demonstrated moderately low to low efficiency. The data emphasize the tradeoffs between cost and overcrowding, with New Jersey, Virginia, and Massachusetts all spending less per inmate than the six-state average, but in turn all having serious overcrowding problems. Rhode Island and Michigan outspent the average, but were able to house inmates in more adequate quarters. Ohio spent a lot of money and still had a sizable overcrowding problem.

Table 7-1. Efficiency of correctional agency

State	Cost per Inmate *($ normalized)*	Capacity Used (%) *(optimum= 95~105%)*	**Rating**
Michigan	33,379	99.2	3.5
Virginia	23,224	153.0	3.5
New Jersey	21,119	140.5	3.5
Massachusetts	24,161	153.6	4.0
Rhode Island	34,199	87.7	4.8
Ohio	30,784	137.8	5.0
Average	*27,811*		
National Average		*113.2*	

Four of the states did well on the performance measures (see table 7-2). Ohio's Corrections Agency obtained the highest rating. New Jersey, Michigan, and Virginia also performed well. Massachusetts' best area of performance was recidivism, where it was rated as average. Rhode Island's performance was the worst in the three categories for which consistent data were possible, suggesting problems related to institutional culture.

Massachusetts and Rhode Island are the only two states in our sample with rates of *escape* higher than the national average.

Data on inmate *misconduct* include both major and minor incidents. Misconduct data are based on the filing of misconduct reports, which are "disciplinary reports written when an inmate is found to have violated agency rules."[32] New Jersey and Michigan had the lowest number of misconduct reports per inmate. Rhode Island, again, had the highest number.

Misconduct reports are "disciplinary reports written when an inmate is found to have violated agency rules."

Virginia, Ohio, and Michigan all had fewer assaults per inmate than the sample average. Their numbers include against-staff and against-inmate assaults. Massachusetts' number is deceptive in that it represents against-staff-only assaults. If we correct Massachusetts' data on the basis of national experience,[33] the Commonwealth would end up with an assault rate at least as high as New Jersey's, and more likely closer to Rhode Island's.

Recidivism rates are "the percentage of inmates being incarcerated for a new charge who have served a prior sentence."

Recidivism rates are "the percentage of inmates being incarcerated for a new charge who have served a prior sentence."[34] Michigan's recidivism rate indicates that it has the fewest repeat offenders (at least repeat offenders who get caught). Massachusetts and New Jersey both have recidivism rates of 24 percent, but Massachusetts' number is based on a short follow-up, implying that it would have more recidivist inmates were the time interval to be three years, as is the case in New Jersey. In fact, based on national trends, one would expect Massachusetts' rates to be more like Ohio's if we standardized time to follow-up.[35] Virginia's performance on this measure is the worst, given that it has the same two-year measurement interval as Massachusetts, and that its percentage is already higher. Rhode Island's definition of recidivism makes its data unfit for cross-state comparisons.

Table 7-2. Performance of correctional agency

State	Escapes per 1000 Inmates	Inmate Misconduct per 1000 Inmates	Assaults Per 1000 Inmates	Recidivism Rate (%)[36]	**Rating**
Ohio	0.2	0.97	21.2	37.5	2.1
New Jersey	0.0	1.01	44.8	24.0	2.3
Michigan	0.3	1.81	21.5	14.6	2.4
Virginia	0.1	1.57	5.6	33.0	2.6
Massachusetts	1.8		27.8	24.0	4.5
Rhode Island	5.4	2.39	59.5	56.9	6.0
Average		*1.55*	*30.1*	*31.7*	
National Average	*1.0*			*34.2*	

There are no corrections agencies that standout for their ***effectiveness*** (see table 7-3). New Jersey, Michigan, and Virginia all demonstrated above average to average effectiveness. Massachusetts' level of effectiveness was below average. Rhode Island's correctional system was easily the least effective.

Table 7-3. Effectiveness of correctional agency

State	Efficiency	Performance	**Rating**
Michigan	3.5	2.4	2.9
New Jersey	3.5	2.3	2.9
Virginia	3.5	2.6	3.1
Ohio	5.0	2.1	3.6
Massachusetts	4.0	4.5	4.3
Rhode Island	4.75	6.0	5.4

Trends

Table 7-4 exhibits efficiency trends. Note that under the column "Capacity Used" negative percentages represent movement toward optimal utilization of prison facilities (assumed as between 95 and 105 percent of rated capacity), positive percentages movement toward over- or under-crowding. Michigan's ***efficiency*** trends were easily the best, as Michigan maintained spending per inmate at an

Table 7-4. Efficiency trends, 1994-1998 (percentage change)

State	Cost per Inmate (%)	Capacity Used (%)	**Rating**
Michigan	8.7	-26.3	2.65
Rhode Island	-1.0	2.0	3.20
Virginia	-20.0	34.5	3.30
Massachusetts	12.7	-9.7	3.35
New Jersey	-19.0	35.0	3.55
Ohio	67.8	-31.8	3.95
Average	*8.2*	*1.0*	

even keel even while it reduced overcrowding in the prisons from 125.5 percent of rated capacity to an optimal 95 percent in 1997. The trends in Rhode Island, Virginia, and Massachusetts all rated slightly above average. New Jersey and Virginia reined in costs at the cost of large increases in overcrowding. Ohio spent lavishly to reduce its overcrowding from 180 percent to 139 percent. Massachusetts balanced moderate spending increases and bringing new prison cells on line.

Data Context: Corrections Costs and Staffing

A look at trends in staffing data (figures 7-A and 7-B) will help round out the picture in changing costs described in table 7-4. The number of staff per inmates is a key measure of productivity. Figure 7-A shows, for example, that Ohio's increases in spending were due not only to the construction of new facilities, but also to a loss in productivity per staff member. Massachusetts was able to contain costs per inmate even as it reduced overcrowding because it improved productivity. Virginia, while exacerbating its overcrowding problem, also made a concerted effort to improve productivity. Rhode Island and New Jersey also improved productivity noticeably.

Figure 7-A. Percentage change in staff per 1,000 inmates, 1994-1998 trends

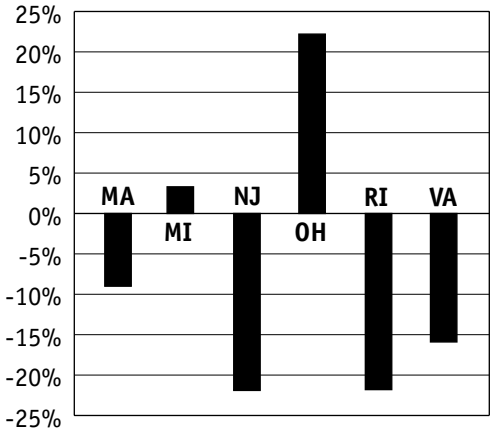
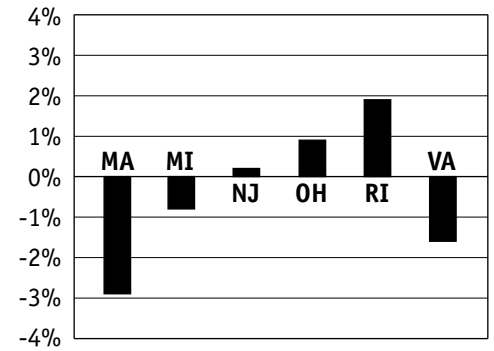


Figure 7-B indicates that there is not a strict correlation between overall productivity and the proportion of staff onsite. For example, one might be tempted to assume that Ohio's loss of productivity was in part due to a 1 percent increase in the number of staff working offsite, or that improved productivity in Massachusetts and Virginia was in part due to reductions in offsite staff. But one has counterexamples in New Jersey and Rhode Island, where the proportion of offsite staff increased, but so did productivity, and in Michign, where more onsite staff did not translate into higher productivity.

Figure 7-B. Percentage change in offsite staff to total staff, 1994-1998 trends



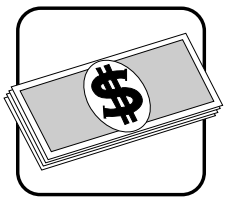
Two immediate lessons to be drawn here are that: changes in system productivity are an essential component in changes in unit costs; and in-agency decisions as to how to use staff will have different impacts in different states. *The overarching lesson to draw is that, after deciding which goals are appropriate or desirable, states are better off managing inputs and assessing outputs, but ultimately giving agencies great freedom to achieve the goals.*

Finally, we rate the ***performance*** of the correctional agencies on four data analyses (table 7-5). Performance trends were positive in all six states. Michigan's performance trends were best, as it had good trends on all of the measures (escapes, misconduct, assaults, and recidivism). Massachusetts' recent trends in assaults and recidivism are reason for hope.

Table 7-5. Performance trends, 1994-1998 (percentage change)

State	Escapes per 1000 inmates (%)	Misconduct per 1000 inmates (%)	Assaults per 1000 inmates (%)	Recidivism Rates	**Rating**
Michigan	-77.0	-4.2	-36.0	-32.1	1.88
New Jersey	-99.3	-25.7	-32.0	0.0	2.25
Ohio	-33.0	-69.0	-38.0	-1.3	2.35
Virginia[37]	-80.0	-14.7	-37.1	0.0	2.53
Massachusetts	-18.2		-35.0	-20.8	2.57
Rhode Island	-80.0	13.8	-13.6		3.23

FINANCIAL ADMINISTRATION



OUR SURVEY OF STATE FINANCIAL ADMINISTRATION is premised on questions key to taxpayers,[38] Is my government able to make payments to creditors? Does my state government use deliberate restraint in controlling the amount of money flowing into state coffers? Is my state careful not to scare off businesses? Does my state control spending so that in times of economic distress it can sustain the same level of services and avoid incurring high levels of debt?

We restrict our analysis of financial administration to performance data, because of the difficulty of singling out all the financial officers in each of the state governments. We compute the performance ratings on the basis of four measures: one bond rating measure (Standard & Poor's), one taxation measure (direct taxes per capita), one expenditure measures (expenditures per capita), and one debt management measure (short- and long-term debt per capita).[39]

Table 8-1 presents results for the latest year for which ***performance*** data were available. Bond ratings are based on a whole range of data and analyses. In analyzing the ability of governments to repay tax-secured debt Standard & Poor's assesses "the capacity and willingness of…governments to repay their [general obligation] debt… by examining four basic analytical areas: economy, financial performance and flexibility, debt burden, and administration."[40] Virginia is the only state to obtain S&P's top rating, notwithstanding the good economic times. Massachusetts and Rhode Island had the lowest bond ratings in the sample. The ratings given by Fitch Investors Service and Moody's paralleled those given by S&P.

The direct taxation metric, again, is normalized to account for differences in the cost of living. Ohio was best able to contain per capita direct taxation, followed closely by Virginia, Rhode Island, and New Jersey. Per capita taxation in Massachusetts and Michigan were by far the highest in the sample.

Total expenditures include direct state expenditures, transfers, and other indirect spending. They include insurance trust benefits and repayments, utility expenditures, and in some cases expenditures on public liquor stores.[41] In normalized dollar amounts, Virginia was, by this measure, the most frugal state in the sample, followed by New Jersey. Massachusetts and Michigan were comparative spendthrifts.

Advocates of lower taxes, expenditures, and public debt often make use of per-capita breakdowns when addressing the financial burdens of expansive government. Proponents of an exapnsive government role usually depend on the use of per-earning breakdowns to analyze tax burdens. We use something of a compromise, employing normalized dollar amounts to mitigate differences in cost of living, but insisting on per-capita breakdowns in order to view the burden from the perspective of a citizen.

Table 8-1. Performance of financial administration, 1997-1998

State	Bond Ratings (1998) S&P	Taxes (1998) Direct Taxes per Capita *($ normalized)*	Expenditures (1997) Expenditures per Capita *($ normalized)*	Debt Management (1997) Short- and Long-Term Debt per Capita *($ normalized)*	Rating
Virginia	AAA	1,623	2,990	1,541	1.0
Ohio	AA+	1,604	3,412	1,226	2.0
New Jersey	AA+	1,688	3,205	2,896	2.8
Michigan	AA+	2,331	3,904	1,561	4.0
Rhode Island	AA-	1,629	3,659	4,848	4.3
Massachusetts	AA-	2,068	3,724	4,243	5.3
Average		*1,824*	*3,482*	*2,719*	

We also present total (that is, both short- and long-term) debt per capita analyses.[42] In normalized terms, Ohio, Virginia, and Michigan were the better debt managers. Massachusetts and Rhode Island were the worst in the sample, with triple and quadruple the total debt per capita number of Ohio, respectively.

Trends

As we collected no data on employment or expenditures dedicated to the actual management of the state's finances, no ***efficiency trends*** are available.

We can, on the other hand, draw some pretty strong inferences in regard to ***performance*** trends. New Jersey and Rhode Island had the best performance trends during the five-year survey period. New Jersey checked its direct taxation at less than half the average for the six states. In addition, it actually reduced spending per capita. New Jersey's weak point was its worse than average debt management. Rhode Island's performance trends in regard to debt management were excellent, its trends on taxation and expenditures above average. Massachusetts and Ohio had mediocre trends. Massachusetts' success with debt management (through 1998) may be encouraging, but its trends on direct taxation and expenditures are a cause for concern. The performance trends in Virginia and Michigan were clearly the worst. Even with this slide in performance, however, Virginia in 1998 was still the best financial administrator; Michigan's poor trends lowered its overall performance from slightly above average in 1994 to below average in 1998 (see table 8-1).

Table 8-2. Performance trends, 1994-1998 (percentage change)

State	1994-1998 Taxes per Capita	1994-1997 Expenditures per Capita	1994-1997 Total Debt per Capita	Rating
New Jersey	12.7	-2.5	14.0	2.00
Rhode Island	25.2	7.9	-3.4	2.27
Ohio	23.1	11.1	10.1	3.10
Massachusetts	30.3	13.4	8.4	3.50
Michigan	37.4	19.7	21.8	5.53
Virginia	43.0	20.9	22.2	6.00
Average	*28.6*	*11.8*	*12.2*	

Obviously, we did not include the bond ratings in the analysis of performance trends. Virginia maintained an AAA rating between 1994 and 1998. Massachusetts, Michigan, and Ohio improved one step (A+ to AA-, AA to AA+, and AA to AA+).

It is a matter of interest that the three metrics shown in table 8-2 are closely aligned for most of the states in the sample. It would seem to suggest that for all the talk of fiscal responsibility among state policymakers there has not been a break with the old-time political logic wherebey good economic times *mean* more tax receipts *mean* more money to spend *means* not enough money to spend (and thus more borrowing). Only Rhode Island and New Jersey had divergent trends, the former choosing to pay down some of its debt, and the latter reining in direct taxes per capita and reducing expenditures per capita.

From a taxpayer's point of view, outside of Rhode Island and New Jersey, it looks like (government) business as usual.

APPENDIX A: DATA SOURCES

THERE ARE TWO BROAD CATEGORIES of data employed in this study: *sample* data and *census* data. In some cases, such as the highway data, road condition is in part determined by FHWA surveys, which take sample data from a scientifically selected subset of the population of interest. The census data (that is, the data collected from all members of the population) originate from various sources, sometimes federal sources such as the U.S. Census Bureau or the Federal Bureau of Investigation, sometimes institutes like the Criminal Justice Institute, and sometimes state agencies.

Obviously, no data are perfect. All data are subject to errors of one type or another. *Nonresponse* errors (due to partial data collection) and *response* (measurement) errors may reside in the federal and state data employed.

Demographic and Economic Statistics

We have cited the following U.S Census sources:

- For population statistics, we used the U.S. Census Bureau, "National Population Trends" data included in "Population Profile," www.census.gov/population/www/pop-profile/nattrend.html.
- For state government employment, we have at times made use of State Government Data Only tables, accessible online at www.census.gov/ftp/pub/govs/apes/94stma.txt, www.census.gov/ftp/pub/govs/apes/94stmi.txt, www.census.gov/ftp/pub/govs/apes/94stnj.txt, www.census.gov/ftp/pub/govs/apes/94stoh.txt, www.census.gov/ftp/pub/govs/apes/94stri.txt, and www.census.gov/ftp/pub/govs/apes/94stva.txt. Access to all five fiscal years of data (1994-1998) is possible by changing the two-digit abbreviations.
- For financial data, the Census State Government Finance Tables, accessible online at www.census.gov/govs/www/stsum94.html, or www.census.gov/govs/state/94stma.txt, www.census.gov/govs/state/94stmi.txt, www.census.gov/govs/state/94stnj.txt, www.census.gov/govs/state/94stoh.txt, www.census.gov/govs/state/94stri.txt, and www.census.gov/govs/state/94stva.txt. One can get the definitions for these data by perusing the accompanying manual, accessible online at www.census.gov/govs/manual.txt.

K-12 Public Education

The public education webs sites in Massachusetts (www.doe.mass.edu), Ohio (www.ode.ohio.gov), Rhode Island (www.instruct.ride.ri.net/ride_home_page.html), and Virginia (www.pen.k12.va.us/VDOE) were helpful. The best data, in terms of uniformity, reach, and availability, were provided by the U.S. Department of Education, National Center for Education Statistics, as part of the Common Core of Data survey. Abridged sets of NCES data are available in various published forms; the most useful we found to be the *Digests of Education Statistics* volumes (available online at www.us.gov.doe, or in microfiche). A great deal of data is also available online at www.nces.ed.gov. The National Assessment of Education Progress test scores are available online at www.nces.ed.gov/pubsearch and www.nces.ed.gov/nationsreportcard.

The *Digests of Education Statistics* volumes (below referred to as "*DES*") include data from other publications, such as *The 1994 and 1996 State of the States Gifted and Talented Education Reports*; The College Entrance Examination Board's "College-Bound Seniors: 1995 Profile of SAT Program Test Takers"; The U.S. DOE, Office of Special Education and Rehabilitation Services publication *The Eighteenth Annual Report to Congress on the Implementation of The Individuals with Disabilities Education Act, 1996*; The Council of Chief State School Officers publication *State Education Policies on Student Attendance and Use of Time*.

Tables 1-1 & 1-4.

- *Total expenditures*: 94: 1997 *DES*, Table 167; 95: 1998 *DES*, Table 166; 96: 1998 *DES*, Table 165.
- *Enrollment*: 1998 *DES*, Table 40.
- *Employment* 94: 1996 *DES*, Table 85; source: USDOE, NCES, Common Core Data survey, unpublished statistics; 95-97: 1998 DES, Table 86.
- *FTE teachers*: 94-97: 1998 *DES*, Table 86.

Table 1-2.

- *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Education Progress*: NCES, NAEP, 1990, 1992, and 1996 Mathematics Assessment. (Note that for all states receive 1 percentage point more than in the NAEP's "First Look" tabulation of test results in 1992.)
- *NAEP 1998 Reading Report Card for the Nation and the States: Findings from the National Assessment of Education Progress*: US DOE, NCES, NAEP, 1994 NAEP.
- *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Education Progress*: US DOE, NCES, NAEP 1996 Mathematics Report Card for the Nation and the States: Finding from the National Assessment of Education Progress, 1997, Table 2.3.
- *NAEP 1996 Reading Report Card for the Nation and the States: Findings from the National Assessment of Education Progress*: www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=1999500.
- *NAEP 1996 Writing Report Card for the Nation and the States: Findings from the National Assessment of Education Progress*: www.www.nces.ed.gov/nationsreportcard/writing/wri_focus_states2.asp.
- *NAEP 1996 Science Report Card for the Nation and the States: Findings from the National Assessment of Education Progress*: www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=97497.
- Scholastic Achievement Test (SAT); American College Test (ACT) Composite Averages by State, 1994-1998.
- *Dropout rates*: 94: *DES*, table 102; 95: 1997 *DES*, table 101; 96: 1998 *DES*, table 103;VA: www.pen.k12.va.us/VDOE.

Figure 1-A.

- *Enrollment*: 1998 *DES*, Table 40.
- *Employment* 94: 1996 *DES*, Table 85; source: USDOE, NCES, Common Core Data survey, unpublished statistics; 95-97: 1998 DES, Table 86.

Figures 1-B & 1-C.

- *Employment* 94: 1996 *DES*, Table 85; source: USDOE, NCES, Common Core Data survey, unpublished statistics; 95-97: 1998 DES, Table 86.
- *FTE teachers*: 94-97: 1998 *DES*, Table 86.

Higher Education

The best data are collected by the U.S. Department of Education, National Center for Education Statistics. Especially useful are the Higher Education General Information System (HEGIS) and Integrated Postsecondary Education Data System (IPEDS) surveys made available by the NCES (available online at www.nces.ed.gov). The problem with the NCES data is that they are not available for every year of our survey. Abridged sets of NCES data are available in the *Digest of Education Statistics* (DES) volumes. We note DES table numbers as "T#" below.

In Massachusetts we made extensive use of the annual reports. These include *Mindpower in Massachusetts: The Commonwealth's Natural Resource, A Report on Higher Education*, Massachusetts Board of Higher Education, 1997; *Mindpower in Massachusetts, Condition of Higher Education, Massachusetts Board of Higher Education, Annual Report*, 1999; *Mindpower in Massachusetts, Condition of Higher Education, Massachusetts Board of Higher Education, State College Supplemental Report*, 1999; and *Mindpower in Massachusetts, Condition of Higher Education, Massachusetts Board of Higher Education, Community College Supplemental Report*, 1999. We also made use of reports made available by the Executive Office for Administration and Finance. In New Jersey we made extensive reference to reports made available by the State of New Jersey Commission on Higher Education, such as *Higher Education Costs and Revenues, The Second Annual Systemwide Accountability Report*, New Jersey Commission on Higher Education, May 1997. In Virginia, Mark Hampton of SCHEV provided an entire database.

Tables 2-1 & 2-2.

- *Current-fund expenditures*: 94-96: 1998 DES, T347. Source: USDOE, NCES, HEGIS, "Financial Statistics of Institutions of Higher Education" surveys; and IPEDS, "Finance" surveys. (This table was prepared in November 1998).
- *Enrollment*: 94: 1997 DES, T201; 95-96: 1998 DES, T201/T202.
- *Degrees conferred*: 1998 *DES*, T245.

Figure 2-B.

- *Enrollment*: 94: 1997 DES, T201; 95-96: 1998 DES, T201/T202.
- *Staff employment*: 94: USDOE, NCES, IPEDS, "Staff, 1993" and "Fall Enrollment" surveys; 96: 1998 DES, T224.
- *Faculty employment*: USDOE, NCES, IPEDS, "Fall Staff, 1995" and "Fall Enrollment" surveys.

Figure 2-C.

- *Staff employment*: 94: USDOE, NCES, IPEDS, "Staff, 1993" and "Fall Enrollment" surveys; 96: 1998 DES, T224.
- *Faculty employment*: USDOE, NCES, IPEDS, "Fall Staff, 1995" and "Fall Enrollment" surveys.

Highways

The sources of data on highway systems are the states' annual submissions to the federal government international statistics on state government. More specifically, we have used *Highway Statistics*, tables HM 10, PS-1, SF-3, SF-4, HM-64, HM-61, and FI-3, FI-10, and HM-53; *Better Roads*, Bridge Inventory; and for employment U.S. Census Bureau: State Government Data only (see above).

Tables 3-1 & 3-3.

- *State-controlled miles*: Highway Statistics, table HM-10-Public Road Length, various years. *Total Expenditures*: Highway Statistics, table SF 4-Disbursements for State Administered Highways, various years.
- *Administrative Expenditures*: Highway Statistics, table SF 4-Disbursements for State Administered Highways, various years.
- *Maintenance Expenditures*: Highway Statistics, table SF 4-Disbursements for State Administered Highways, various years.

Table 3-2.

- Highway Statistics, table HM-64: Paved Miles by Measured Pavement Roughness-Rural, various years. Poor Condition: IRI>170.
- Highway Statistics, table HM-64: Paved Miles by Measured Pavement Roughness-Urban, various years. Poor Condition: IRI>170.
- Highway Statistics, table HM-64: Paved Miles by Measured Pavement Roughness-Rural, various years. Poor Condition: IRI>220.
- Highway Statistics, table HM-64: Paved Miles by Measured Pavement Roughness-Urban, various years;
- Highway Statistics, table HM-61: Functional System Length-Miles by Volume Service Flow Ratio-Urban, various years.
- *Better Roads*, Bridge Inventory, various years.
- Highway Statistics, table FI-3: Motor Vehicle Traffic Fatalities and Injuries, 1994-1997.
- Highway Statistics, table FI-10: Persons Fatally Injured in Motor Vehicle Crashes, 1998.
- Highway Statistics, table HM-53: Functional System Length, various years.

Transit

The Section 15 Reports of the Federal Transit Agency (FTA) were extremely helpful, providing uniform definitions from a single source (available online at www.fta.dot.gov/ntl/database.html). We note the Section 15 Report tables as "T#" below.

Tables 4-1 & 4-4.

- *Vehicle miles*: 1994, FTA T21; 1995-1997, T26; 1998, T27.
- *Operating funds*: 1994-1998, T1.
- *General Administrative Expenses*: 1994-1997, T10; 1998, T11.
- *Total Operating Expenses*: 1994-1997, T10; 1998, T11.
- *Vehicle miles per 1 dollar of maintenance cost*: 1994, T21; 1995-1997, T26; 1998, T27.

Table 4-2.

- *Collisions*: 1996-1997, T20, 21, and 22; 1998, T21, 22, and 23.
- *Vehicle miles*: see table 4-1.
- *Violent crime*: 1996-1997, T23. *Property crime*: 1996-1997, T24.
- *Passenger trips*: 1996-1997, T26; 1998, T27.
- *Road calls*: 1995-1997, T14; 1998, T15.

State Police

Tables 5-1 & 5-3.

- *Expenditures*[43]: U.S. Census, Census State Government Finance Tables.
- *Miles of jurisdiction*: **MA**: correspondence from Capt. Thomas Ryan, Division of Administrative Services, Department of State Police; these figures are for lane—not linear—miles. **MI**: correspondence from James De Sana, dated 9-99. **NJ**: Highway Statistics, table HM 10: Public Road Length. **OH**: correspondence from Cptn. Wayne Warner, OH Department of Public Safety, OH State Highway Patrol, dated 12-8-99. **RI**: correspondence from Lt. John Blessing, RI State Police, dated 9-99. **VA**: correspondence from Cynthia Sandy, Public Affairs Unit, Commonwealth of Virginia Department of State Police, dated 11-29-99.
- *Population*: see *Demographic and Economic Statistics* (above).

Table 5-2.

- *Fatalities on roadways patrolled by the State Police (SP jurisdiction-specific fatalities)*: **MA**: Cptn. Thomas Ryan; by calendar year: FY94 matched to 1993, FY95 to 1994, etc. **OH**: www.state.oh.us/ohiostatepatrol/statist.html.
- *Population*: see *Demographic and Economic Statistics* (above).

Judiciary

An invaluable source of court data is the National Center for State Courts, Williamsburg, Virginia. The U.S. Census Bureau, State Government Data Only also provides some employment data. Finally, the Administrative Offices of the Supreme (or Trial) Courts aided in the data-gathering process. Unfortunately, while state web sites are increasingly informative as to judicial structure, they pay frustratingly little attention to inputs and outputs. See, for example, Michigan's sites at www.supremecourt.state.mi.us/msc/msc_over.htm, www.supremecourt.state.mi.us/coa/coa.over.htm, www.supremecourt.state.mi.us/trial/circuit.htm, www.supremecourt.state.mi.us/trial/probate.htm, www.supremecourt.state.mi.us/trial/district, www.supremecourt.state.mi.us/trial/municipal.htm.

Tables 6-1 & 6-4.

- *Expenditures*: **MA**: correspondence from William J. Marchant, Manager of Fiscal Affairs/Budget, Administrative Office of the Trial Courts, fax/letter dated 1-21-00. **MI**: Non-Trial Court expenditures 1994-1998: correspondence from John Ross, Senior Human Resource Analyst, fax/letter dated 1-19-00; plus enclosures of Enrolled House Bills (approved by the Governor) from Regular Sessions of 1993-1998 for the Judiciary Budget; in addition, for Trial Court Expenditures, the "Estimates of Statewide Costs and Revenues" received in correspondence with Mr. Ross' office. **NJ**: 1994-98: New Jersey *Comprehensive Annual Reports*. **OH**: correspondence from Doug Stephens, dated 1-21-00. **RI**: 1994-98: *1998 Report on the Judiciary, Rhode Island Court System*, 15; also, correspondence from Armand Tetreault, Judicial Planning Unit, Supreme Court, Administrative Office of State Courts. **VA**: 1994-98: *Judiciary's Year in Review*, 1994-98, 1994 (A-6), 1995 (A-28), 1996 (A-22), 1997 (A-21), 1998 (A-22), "Table 1: Pre-Trial, Trial and Appellate Processes, Fiscal 1994/5/6/7/8 Expenditures, Court System Total/Grand Total."[44]
- *Population*: see *Demographic and Economic Statistics* (above).
- *Total Filings*: correspondence from National Center for State Courts, Information Service, faxes of 11-15-99 and 1-20-00.

Table 6-2.

- *Total Civil Filings*: correspondence from National Center for State Courts, Information Service, faxes dated 11-15-99 and 1-20-00.
- *Total Civil Dispositions*: same.
- *Total Criminal Filings*: same.
- *Total Criminal Dispositions*: same.
- *Clearance rates in IACs*: *Examining the work of the state courts, 1997*, joint project of Conference of State Court Administrators, the State Justice Institute, the Bureau of Justice Statistics, and the National Center for State Courts' Courts Statistics Project, 83.
- *Percentage of Civil Cases over 2 years old*: **MA**: data for 14 Superior Courts, 1994, *Annual Report on the State of the Massachusetts Court System* (Fiscal Year 1994), 141; 1995: same (Fiscal year 1995), 131; 1996: same (Fiscal Year 1996), 137; 1997, same (Fiscal Year 1997), 101; and 1998, same (Fiscal Year 1998), 124.[45] **MI**: 1998: correspondence from John Ross, Senior Human Resource Analyst, fax/letter dated 1-19-00, report run on 8-10-99, numbers exclude Appeals and Domestic Relations but include Personal Protection Orders. **NJ**: correspondence dated 11-4-99 from Tara Carskadden, Administrative Office of the Courts, State of New Jersey. **RI**: data from a study completed by the RI Superior Court, not reflecting District Court, provided in correspondence from Armand Tetreault, Judicial Planning Unit.
- *Percentage of Civil Cases over 3 years old*: same as *Percentage of Civil Cases over 2 years old*.
- *Percentage of Criminal Cases over 3 years old*: **MA**: data for 14 Superior Courts, 1994: *Annual Report on the State of the Massachusetts Court System* (Fiscal Year 1994), 137; 1995: same (Fiscal year 1995), 127; 1996: same (Fiscal Year 1996), 133; 1997: same (Fiscal Year 1997), 99; and 1998: same (Fiscal Year 1998), 127 (high value in range is for percentage of cases pending after one year). **MI**, **NJ**, and **RI**: see *Percentage of Civil Cases over 2 years old* (above).

Figures 6-A & 6-B.

- *Employment*: **MA**: 94-98, correspondence from William J. Marchant, Manager of Fiscal Affairs, Administrative Office of the Trial Courts, fax/letter dated 1-21-00. **MI**: Trial Court Employees 1994, 1995, 1996, 1998: correspondence from John Ross, Sr. Human Resource Analyst, fax/letter dated 10-27-99 (1998 figure estimated based on the 1997 and 1999 figures provided); Non-Trial Court positions 1994-1998: from Enrolled House Bills (approved by Governor) from Regular Sessions of 1993-1998. **NJ**: 1995: U.S. Census Bureau, State Data only; 1998: State of New Jersey State Government Workforce Overview, dated 1-1-99. **OH**: correspondence from Doug Stephens, dated 1-21-00. **RI**: 1994, 1995, 1997 U.S. Census Bureau, State Government Data only; 1998: *1998 Report on the Judiciary, Rhode Island Court System*, 9; also, correspondence from Armand Tetreault, Judicial Planning Unit, Supreme Court, Administrative Office of State Courts. **VA**: 1994-98: *Judiciary's Year in Review*, 1994-1998, 1994 (A-6), 1995 (A-28), 1996 (A-22), 1997 (A-21), 1998 (A-22), "Table 1: Pre-Trial, Trial and Appellate Processes, Fiscal 1994/5/6/7/8 Expenditures," Court System Total/Positions; please note that we have added to the Court System Total/Positions figure staff members, including constitutional officers.[46]
- *Population*: see *Demographic and Economic Statistics* (above).
- *Total Filings*: see tables 6-1.

Corrections

Data were collected from the states and then corroborated and supplemented by Camille G. and George M. Camp's *The Corrections Yearbook*, years 1994 to 1998 (published by the Criminal Justice Institute, Inc.)[47] Ultimately, we found the *Yearbook* to be the best source of data. In addition to the uniformity of definitions and the ease of access, the Camps' volumes bring to bear great experience, expertise, and care. Reference to the Yearbook will be noted below by "[*TCY*]."

Table 7-1 & 7-4.

- *Expenditures*: [*TCY*] 1994, Cost of Operating Prison Systems (FY94), 47-48; 1995, same (FY95), 48-49; 1996, same (FY96), 64-65; 1997, same (FY97), 70-71; 1998, Adult Correctional Agency Budgets for FY98, 86-87.
- *Inmate Population (Average Daily Population)*: [*TCY*] 1994, Average Daily Population, 16-17; 1995, same, 16-17; 1996, same, 44-45; 1997, same, 46-47; and 1998, same, 18.
- *Percent of Capacity at which the prisons are operated (as of Jan. 1 of year noted)*: [*TCY*] 1994, Rated Capacities and Overcrowded Percentages (Jan 1, 1994), 35-36; 1995, same (1995), 36-37; 1996, Rated Capacities of Adult Correctional Institutions by Security Level (Jan 1, 1996), 56-57; same (1997), 60-61; 1998, Percentages of Capacities at which Adult Correctional Agencies were operating (Jan. 1, 1998), 72-73.

Table 7-2 & 7-5.

- *Escapes (during previous calendar year)*: [*TCY*] 1994, Escapes by Custody Level, 23; 1995, same, 23; 1996, Escapes by Custody Level during 1995, 16-17; 1997, same (during 1996), 18-19; 1998, Inmate Escapes and Captures during 1997, 22.
- *Inmate Population*: see table 7-1.
- *Inmate Misconduct (during the previous calendar year)*: [*TCY*] 1994, Inmate Misconduct reports (filed in 1993), 28-29; 1995, same (filed in 1994), 28-29; 1996, Inmate Misconduct Reports and Grievances (filed in 1995), 22-23; 1997, same (filed in 1996), 24-25; 1998, same (filed in 1997), 28-29.[48]
- *Assaults Committed by Inmates (during the previous calendar year)*: [*TCY*] 1994, Assaults by Inmates (during 1993), 25-26; 1995, same (during 1994), 25-26; same (during 1995), 34-35; 1997, same (during 1996), 36-37; 1998, same (during 1997), 40-41.[49]
- *Recidivism (various definitions)*: [*TCY*] 1994, Inmates with Priors, Recidivism Rates, 14; 1995, same, 14; 1996, 1995 Average Daily Population, Average Length of Stay for 1995 Releases, and Recidivism Rates, 44-45; 1997, 1996 Average Daily Population, Average Length of Stay for 1996 Releases, and Recidivism Rates, 46-47; 1998, Average Length of Stay for 1997 Releases and Agency Recidivism Rates, 56-57.

Figure 7-A.

- *Staff employment*: [*TCY*] 1994, Agency Employees, 66-67; 1995, same, 68-69; 1996, Gender, Race, and Ethnicity of Adult Correctional Agency Staff on Jan. 1, 1996, 98-99; 1997, same, 108-109; and 1998, same, 130-131.
- *Inmate population*: see table 7-1.

Figure 7-B.

- *Staff Located in Central/Regional Offices (as a percentage)*: [*TCY*] 1995, Staff in Institutions, Field Service, Community Facilities, and Central Offices, 82; 1996, Location of Agency Staff on Jan. 1, 1996, 106-107; 1997, same, 116-117; 1998, same, 138-139.

Financial Administration

Data for the analyses in Financial Administration can be found in the states' respective *Comprehensive Annual Financial Reports* (CAFRs). In particular, we made reference to the introductory sections (on debt management and bond ratings); combined balance sheets (all fund types, account groups and discretely presented component units); combined statements of revenues, expenditures and changes in fund balances (all governmental fund types and expendable trust funds); notes to the general purpose financial statements (especially regarding long-term debt and assets); and the statistical sections at the back (on sundry matters). We supplemented these data with U.S. Census

data. Two Census web sites were particularly useful: www.census.gov/govs/statetax/(year)tax.txt and www.census.gov/govs/www/stsum(year).html. In addition, www.census.gov/govs/manual.txt was useful for understanding the definitions the Census Bureau employed in the data gathering process.

Table 8-1.

- *Standard & Poor's Corporation bond rating*: we obtained each state's bond rating from the introductory pages of its *Comprehensive Annual Financial Report*, 1994-1998. Also available are *Fitch Investor Service bond ratings* and *Moody's Investor Service bond ratings*.
- *State taxes per capita*: Census State Government Finance Tables.
- *Total expenditures, including insurance trust benefits and repayments, utility expenditures, and liquor expenditures, per capita*: see Census State Government Finance Tables.
- *Short- and Long-term Debt per capita*: see Census State Government Finance Tables.

ENDNOTES

[1] Federal control over state and local policy, a phenomenon that began in earnest during the New Deal, reached a feverish pitch with President Johnson's Creative Federalism and New Society programs. President Nixon's New Federalism initiatives halted the rapid upsurge in "mixed accountability" schemes, substituting to some extent block grants and revenue-sharing programs that gave states some control over how funds were utilized. President Reagan took the further step of using the block grants and agency waiver procedures to enable state and local governments to experiment. For an opposing view on Nixon's role, see David Walker, "American Federalism in a Transitional Era," in A.B. Akinyemi, P.D. Cole and Walter Ofonagoro (eds.), *Readings on Federalism* (Lagos, Nigeria: Nigerian Institute of Intternational Affairs, 1979), p. 338; David Walker, "The Advent of an Ambiguous Federalism and the Emergence of New Federalism III," in *Public Administration Review* (May/June 1996). See also Timothy J. Conlan, *New federalism: Intergovernmental Reforms from Nixon to Reagan* (Washington, D.C.: Brookings Institution, 1988). For background on issues related to federalism, see Paul E. Peterson, *The Price of Federalism* (Washington, D.C.: Brookings Institution, 1995).

[2] Douglas Seay, Robert E. Moffitt, "Transferring Functions to the States," in *Heritage Foundation Reports*, February 1997, p. 92.

[3] For some background on the Court's struggle, see the dissenting opinions in *Garcia v. San Antonio Metropolitan Transit Authority* (1985) and *Gregory v. Ashcroft* (1991).

[4] See, for example, *United States v. New York* 505 U.S. 144 (1992) (Congress may not command a state to enact regulations), *Seminole Tribe of Florida v. Florida* 000 U.S. U10198 (1996) (national commerce power does not trump state sovereign immunity), and *US v. Lopez* 514 US. 549 (1995) and *US v. Morrison* No. 99-5 (2000) (limiting the reach of the Commerce Clause).

[5] Personal income data from the Bureau of Economic Analysis, Government finance data (FY1991-96) from Census Bureau (http://www.census.gov/govs/www/estimate.html), and Government finance data (FY1983-90) from Advisory Commission on Intergovernmental Relations suggest that from FY 1983 to FY1996 State Taxes per $1,000 of personal income rose 9.3 percent, while Local Taxes per $1,000 of personal income rose 7.1 percent. State Own-Source General Revenue Per $1,000 Personal Income rose 13 percent, while Local Own-Source General Revenue Per $1,000 Personal Income increases were limited to 9.7 percent. (Thanks to Robert Tannenwald of The Federal Reserve Bank of Boston for providing these data.) These data, taken together with federal revenue-sharing trends over the last two decades, which have placed the states in a position of increasing importance, and data on Federal Government Revenue (as a percentage of GDP, 1902-1993) and State and Local Government Revenue (as a percentage of GDP, 1902-1993), suggest that states have increasing power over the purse. Source: C. Eugene Steuerle and Gordon Mermin, The Urban Institute, cited in "The Proceedings of a Colloquium on 'Devolution: The New Federalism,' " *The New England Economic Review,* Boston: The Federal Reserve Bank of Boston, May/June 1998, p. 81.

[6] The most ambitious project is the Government Performance Project (GPP), funded by the Pew Charitable Trust and carried to fruition by the Maxwell School of Citizenship and Public Affairs at Syracuse University and *Governing* magazine, which studies "the effectiveness of management systems and examines the role of leadership in government entities." The project examines capacity and procedures by analyzing whether state agencies are able to place the right people in the right places, make use of the right information at the right time, and cultivate systems capable of incorporating innovation (http://www.maxwell.syr.edu/gpp).

[7] The National Conference of State Legislatures and the Urban Institute have joined together on "a project to examine the process and procedures that state legislative and executive branches have developed that focus on results-focused practices" (http://www.ncsl.org/programs/fiscal/uiperbud.htm). The NCSL/UL project focuses on Florida, Louisiana, Minnesota, North Carolina, Oregon, and Texas, none of which are in our sample. The Maxwell School/*Governing* GPP is highly descriptive, but also focuses mainly on structure and process.

[8] See the tables entitled "State Cost of Living Index," in *The Federal Budget and the States*, fiscal years 1994 to 1998. Joint Research of the Taubman Center for State and Local Government, John

F. Kennedy School of Government, Harvard University, and the Office of Senator Daniel Patrick Moynihan. 1995 report authored by Monica E. Friar, Herman B. Leonard, and Jay H. Walder. 1996 report authored by Herman B. Leonard and Jay H. Walder. 1997 report authored by Jay H. Walder and Herman B. Leonard. 1998 report authored by Herman B. Leonard, Jay H. Walder, and José A. Acevedo.

[9] For our purposes, we did not distinguish one source of funding from another, but rather focused on obtaining the most comprehensive expenditure and cost numbers available.

[10] Also, "general" and "educational" expenditure definitions were rather loose—and not terribly comprehensive. State appropriations are another potential measure of costs. As they do not include fees and tuition, however, in Virginia they captured only about two-thirds of the current-fund expenditures in fiscal year 1994 ($2,224,720,968 of $3,301,020,000). In addition, the proportion of current-fund expenditures that they constitute varies widely from year to year. For example, using Virginia once again as an example, state appropriations rose to 74.3 percent of current-fund expenditures in 1996.

[11] Although the six public systems of higher education are highly comparable, their implicit cost structures differ. We propose the probable hierarchy of costs in figure 2-A based upon an analysis of differences in institutions and programs offered, enrollment types, and the quality of degrees conferred. According to 1994 NCES data, all of the states in our sample have a greater number of private than public four-year institutions. All have a greater number of public than private two-year institutions (except Rhode Island where there is one of each). On a per-institution basis, the number of students in public institutions is much higher than in private institutions in all of the states. According to 1997 NCES data, the proportion of all students in public institutions of higher education who are full-time students is between 49.7 and 54.1 percent for all of the states except Ohio (60.9 percent). In all of the sttes in the sample, the proportion of graduate and professional students is between 11.4 and 15.3 percent. The proportion of total undergraduates in four-year public institutions is between 40.5 and 50.7 percent. The proportion of total undergraduates in two-year public institutions is between 40.6 and 48 percent, except in Ohio where it is 36.1 percent. Bachelor's degrees constituted 49.3 to 56 percent of all degrees conferred in 1996. Associates degrees made up between 24 and 27 percent, except in Virginia (20.9 percent). Advanced degrees (that is, professional and graduate degrees) represented between 14.9 and 24.9 percent of all degrees conferred.

[12] Data on FTE students per FTE staff specific to 2-year and 4-year institutions call into doubt the accuracy of data for public institutions. See same data sources as those for tables 2-B and 2-C.

[13] As available resources are finite, management decisions must seek to prioritize allocation of resources. While student services are a key part of higher education, facilitating access to expertise that only faculty members can provide is a higher level goal of management. This is not to say that one can hire an extra professor by laying off an idle janitor, but simply that concerted, long-term efforts to limit the expansion of services to concentrate on academics will be reflected positively in the data.

[14] Most of the data gathering and all of the analyses for this section were done for Pioneer Institute by Dr. David T. Hartgen and Nicholas J. Lindeman, under the auspices of the Center for Interdisciplinary Transportation Studies at the University of North Carolina at Charlotte.

[15] This survey cannot make judgments about what "the service most appropriate to the state's needs" means for each of the specific states. That is a political question, the answer to which at least partly determine each state's ratings.

[16] Virginia's state agency only coordinates with agencies in contiguous states for regional purposes. Michigan does not administer Detroit's extensive transit system in any significant way. Ohio does not have a direct administrative hand in the transit services of Columbus, Cincinnati, or Cleveland. In Massachusetts we concentrated on the Massachusetts Bay Transportation Authority (MBTA) and did not include Brockton, Springfield, or other regional agencies; in New Jersey we did not include NJTC/Academy, NJTC/Hudson Transit, NJTC/Suburban, or NJ/NY-Rockland. The Rhode Island Public Transit Authority (RIPTA) administers the entire range of mass transit activities in the state of Rhode Island.

[17] Massachusetts has commuter rail (CR), heavy rail (HR), light rail/subway (LR), municipal bus (MB), and trolley bus (TB). New Jersey has CR, LR, and MB. Rhode Island has only MB.

[18] We prefer to use operating funds rather than operating expenses as the latter do not reflect the total costs of the systems. A review of each state's financial data shows that total operating funds more closely resemble total monies for the function, excluding depreciation, but including debt and capital project costs. These include fares, appropriations, and government transfers.

[19] Some state police operations are limited to highway patrol. Such is the case of Ohio's State Highway Patrol. Others engage in a greater variety of activities; for example, the New Jersey state police are responsible for some safety and crime control in the casino areas, as well as a variety of seaboard interdiction efforts.

[20] The rather large variations in costs per mile and costs per capita are not all explicable in terms of activities. Even using such denominators as population density underscores no correlation with input costs.

[21] The median for civil case filing rates is between 5099 and 5197 civil cases per 100,000 population (Brian J. Ostrom and Neal B. Kauder (eds.), *Examining the Work of the State Courts, 1997*, National Center for State Courts, 1998, p. 17). All of the states in our sample have relatively high civil filing rates, and therefore can be considered highly litigious.

[22] Two of the states in our sample elect their judges: both Michigan and Ohio have nonpartisan election processes. Massachusetts, New Jersey, Rhode Island, and Virginia choose judges by appointment. Virginia gives the right of appointment to the legislature; the other three states grant this right to the governor.

[23] Definitions of what constitutes a filing differ. "In most states, post-judgment collection actions are not counted as new filings." In Virginia, however, they are. The impact of minimum jurisdiction amounts is minimized by making use of aggregate numbers, which include both limited and general jurisdiction filings.

[24] Fifty-eight percent of state court filings were for traffic-related matters, 17.3 percent for civil matters, 15.8 percent for criminal matters, 5.7 percent for domestic matters, and 2.3 percent for juvenile matters.

[25] The Massachusetts data exclude Housing and Juvenile Court statistics, as consistent statistics for these courts could not be obtained. Probate Court statistics (constituting about 40% of total filings) were not included for their anomalously low disposition rate; inclusion would reduce the Massachusetts clearance rate to 72.4 percent. Due to lack of available data, the Michigan figures exclude Probate Court statistics. Probate filings account for about 12 percent of all filings. The Rhode Island data do not include Probate, Administrative Adjudications, and Family Court statistics; from partial data it seems they would bring the clearance rate down to 82 percent.

[26] Massachusetts Housing Court data are not included. Ohio data do not include Mayor's Court statistics due to lack of availability.

[27] We have averaged the outer values of Massachusetts' performance data (68.1/2=34.05) as the basis for its rating on this measure.

[28] "Middlesex/Norfolk Counties Civil One-Trial Project, Pending Regular Civil Cases by Court," report run on 29 April 1999.

[29] Rhode Island's cost-per-resident trends are based on a 1995-1998 data set, its cost-per-filing trends on a 1995-1997 data set.

[30] New Jersey's cost-per-resident trends are based on a 1995-1998 data set.

[31] The recidivism measure is meant to capture the outcomes of training and rehabilitation programs.

[32] Camille G. Camp and George M. Camp, *The Corrections Yearbook, 1996*, Criminal Justice Institute, South Salem (New York), 1996, p. 23. It would have been preferable to deal only with major misconduct, as the definitions would probably be less varied. Cross-agency comparisons of misconduct are only partially valid, as definitions differ among the agencies.

[33] The data seem to indicate that against-staff-only assaults, on average, make up from under 30 percent to over half of total assaults. We rate Massachusetts on the basis of a generous (to Massachusetts) assumption that its against-staff-only figures are half of total assaults.

[34] *Corrections Yearbook,* 1996, 45.

[35] The Fall 2000 issue of *Commonwealth* magazine, citing a Massachusetts Department of Correction study, indicated that if one calculated FY1995 data on the basis of a 3-year follow up, the recidivism rate would be 44 percent (www.massinc.org/pages/Commonwealth/Fall%202000/inquiries1.html).

[36] Note that this rating is not based on differences in magnitude *ranges* (which could not be established), but only on a strict ranking.

[37] Virginia's misconduct trend is based on a 1994-1996 data set.

[38] The two most frequently cited analyses of the financial performance of state governments are budget office assessments and bond rating agency studies. The former do not consider cross-state comparisons and are for in-house oversight purposes. They tend to be highly context-specific. The latter are geared to satisfy criteria set by lenders and seek answers to questions that fall outside the purview of an analysis of state *government* performance, such as "Is the economy's strength such that it will enable the state to make bond payments?" We include the bond ratings for the richness of the analysis, but supplement them with three metrics regarding taxation, expenditures, and debt.

[39] It is worth noting that the ratings given by the other two best-known bond rating agencies (Fitch Investors Service and Moody's) were similar; and that additional debt management measures (long-term debt per capita, interest on general debt as a percentage of total expenditures, interest on general debt per capita, and short- and long-term debt to cash and securities) would not have changed the results significantly.

[40] *Standard & Poor's Public Finance Criteria*, New York: Standard & Poor's, McGraw-Hill, 1999, p. 16.

[41] "Expenditure includes all…money paid out by a government during its fiscal year—net of recoveries and other correcting transactions—other than for retirement of debt, purchase of investment securities, extension of loans, and agency or private trust transactions. Expenditure relates to external payments of a government and excludes amounts transferred to funds or agencies of the same government… Expenditure includes payments from all sources of funds… Note, however, that the Bureau's finance statistics do not relate expenditure to their source of funding. Expenditure includes amounts spent by all agencies, boards, commissions, or other organizations categorized as dependent on the government… [E]xpenditure covers outlays of all accounting funds of a government other than intragovernmental service (revolving), agency, and private trust funds." (www.census.gov/govs/manual.txt, 9.1 Expenditure Definition)

[42] "Public debt comprises all interest-bearing short-term credit obligations and all long-term credit obligations incurred in the name of the government and all its dependent agencies, whether backed by the government's full faith and credit or non-guaranteed. It includes tax-exempt as well as taxable public debt." (www.census.gov/govs/manual.txt, 9.1 Debt Definition)

[43] Alternate data on expenditures collected (but not used because they did not conform to a uniform definition): **MA**: Cptn. Thomas Ryan, 508-820-2601, Division of Administrative Services, Department of State Police; by calendar year: FY94 matched to 1993, FY95 to 1994, etc.; **MI**: MI Comprehensive Annual Report (1994-1998); **NJ**: Sargent Al della Fav, Public Information Officer, New Jersey Department of State Police; **OH**: correspondence of 11-2-99, Cptn. Wayne A. Warner, OH Department of Public Safety, OH State Highway Patrol; **RI**: RI State Police, correspondence with Lt. John Blessing; **VA**: Commonwealth of Virginia Department of State Police, Douglas W. Dix, Finance & Administration Director, correspondence of 11/23/99.

[44] Note that we have derived Virginia's expenditures by adding to the Court System Total/Grand Total Expenditures those expenditures in support of the operation of the Circuit Court clerks' officers and their staff members (1994: $26.9 m; 1995: $29.9 m; 1996: $30.2 m; 1997: $31.0 m; 1998: $34.0 m). Also note that the figures include Supreme Court, Court of Appeals, Circuit Courts, District Courts, and Magistrate System.

[45] The high value in range is for percentage of cases pending after one year.

[46] Additional Virginia information: We have taken employment in 1994 to consist of 909 staff members (including 121 constitutional officers); in 1995 of 1,038 staff members (including 121 constitutional officers); in 1996 of 934 staff (121 constitutional officers); in 1997 of 940 staff (121 constitutional officers); and in 1998 of 1,101 staff members (121 constitutional officers). Note that the figures include Supreme Court, Court of Appeals, Circuit Courts, District Courts, and Magistrate System.

[47] 1994-1997 volumes published in South Salem, New York; 1998 volume published in Middletown, Connecticut. Please note that in 1994 and 1995 we used the Adult Corrections volume exclusively.

[48] Also see "Errata" to 1998 Corrections Yearbook: "Inmate Misconduct Reports and Grievances Filed in 1997: The Minor Misconduct Report and Total Misconduct Report columns were reversed."

[49] Please note that Massachusetts data for 1994 through 1998 are against staff only; Michigan data for 1994 are against staff only; New Jersey data for 1994 and 1996 are against staff only; Ohio data for 1994 and 1995 are against staff only; and Virginia data for 1994 are against staff only.

ABOUT THE AUTHOR

JAMES STERGIOS is Pioneer's Research Director. Prior to coming to Pioneer, he taught Economics at the Rome campus of European University, and later at Ritsumeikan University in Kyoto, Japan. His experience in the private sector includes consulting and work in comestibles exports while in Italy, and journalism while in both Italy and Japan. He has published articles and editorials in the *Providence Journal*, the *Japan Times*, and the *Boston Herald*. In 1999 he co-authored a study of public construction procurement with Douglas D. Gransberg and Daniel F. Runde, "Impact of Innovative Highway Construction Contract Methods." He graduated from Boston University *summa cum laude* in Philosophy and Economics, with Distinction in Economics. After studying in France for one year, he did graduate work in Economics at the University of Rome, "La Sapienza." He is presently finishing his doctoral dissertation in Political Sociology at Boston University's University Professors Program.