FORESIGHT

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STATE SHORTFALLS PROJECTED THROUGHOUT THE DECADE

Higher Ed Budget Likely to Feel Continued Squeeze

By Dennis Jones

After almost a decade of good economic conditions and strong revenue growth, most states entered fiscal year 2003 facing sharply reduced revenues, and are now struggling to constrain expenditures. Unfortunately, this situation is unlikely to change any time soon, according to projections developed for the National Center for Higher Education Management Systems by Donald Boyd of the Rockefeller Institute on Government. Even if states experience normal economic growth over the next eight years, all but a handful of states will find it impossible, given their existing tax policies, to continue funding their current level of public services.

Maintaining funding for the wide range of existing state services will place enormous pressure on state legislatures to continue the recent practice of sharply reining in, if not reducing, their appropriations to higher education. This trend is in stark contrast to state actions during much of the 1990s, when most states substantially increased their support for higher education. This boom-and-bust cycle has become a traditional state pattern of treating colleges and universities disproportionately well during prosperous times—and disproportionately poorly in tight budgetary circumstances.

State actions during the good economic times of the nineties are likely to exacerbate the fiscal challenges that lie ahead—particularly for higher education. This is because, during the strong fiscal conditions:

1. States funded popular new programs that will now compete with higher education for funding in both good times and bad; and

2. Many states reduced tax rates, and many did so in ways that will require explicit action to increase them again which lawmakers are very reluctant to do.

Further, due to demographic and economic factors in most states, the claims on the public purse will be greater for other programs than for higher education—continuing the trend that results in colleges and universities getting a consistently smaller slice of the state appropriations pie.

If economic growth is slower than normal, if states continue to cut taxes, or if states increase spending in areas outside of higher education, then the outlook for support of public higher education will be even worse.

IN BRIEF ...

Primary Finding

States, and higher education in particular, are likely to face very tight budget conditions for the next decade.

Other Key Findings

All but a handful of states will find it impossible to maintain current levels of public services with their existing tax structures. Just to maintain current services, state spending for higher education would have to increase faster than state spending in other areas.

About These Projections

These projections were developed for the National Center for Higher Education Management Systems by the Rockefeller Institute on Government. The full report, as well as more detailed state-by-state data, can be obtained at **www.higheredinfo.org**.

These projections also build upon an earlier study by Harold Hovey called *State Spending for Higher Education in the Next Decade*: *The Battle to Sustain Current Support*, available at **www.highereducation.org**

Fiscal Outlook for States

The analysis by the Rockefeller Institute suggests that even if state and local governments close their current budget gaps with recurring actions rather than gimmicks that provide only temporary relief, most states will continue to face difficulty financing current services through existing revenue structures; they will not have resources for real increases in spending. This would mean either:

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• State residents would have to scale back their appetite for public services. This would be a reversal of a long-term trend; each of the past five decades has witnessed significant increases in real per-capita expenditures by state and local governments.

— or —

• State residents would have to accept tax increases to finance new growth. Support for this option likewise appears problematic.

These findings are based on projections, over the next eight years, of the revenues and expenditures that would be required in each state (1) to maintain current public service levels (2) given the current tax structures and (3) given conservative estimates of expenditures, (4) if state economic conditions were to improve to their average, that is, "normal," conditions.

Based on these projections, five states face a *structural surplus* by year eight (see Table 1). Forty-four states face a *structural shortfall*. Twelve states face shortfalls of 5 percent or more. These projected shortfalls are smaller than the crisis-induced budget gaps that many states face today. They suggest, however, that state and local governments will continue to face fiscal stress even after their economies strengthen.

The primary reasons for these continuing fiscal difficulties are twofold, one concerning revenues and the other dealing with spending requirements. First, state and local tax revenues are unlikely to grow as fast as state economies because:

• Economic growth is projected to be more balanced than in the late 1990s, which generated extraordinary surges in capital gains income.

• Increases in sales tax revenues are projected to slow significantly due to (a) continued shifts in consumption from goods

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TABLE 1

Eight years from now, given a return to normal (that is, better) economic conditions:

- **Which states have a structural fiscal surplus?**
- **Which states have a structural fiscal shortfall?**
- **How big is the surplus or shortfall, as a percentage of revenues?**

States with Surplus	Surplus as a % of Revenues
Vermont	3.1
North Dakota	2.2
Maine	1.3
New Jersey	0.6
Delaware	0.2
No Surplus or Shortfall	**Surplus /Shortfall as a % of Revenues**
Wisconsin	0.0
States with Shortfall	**Shortfall as a % of Revenues**
Kansas	-0.3
Montana	-0.4
Maryland	-0.5
New Hampshire	-0.6
Arizona	-0.7
Massachusetts	-0.8
Utah	-0.8
Oklahoma	-1.3
Oregon	-1.3
Nebraska	-1.4
Ohio	-1.4
Michigan	-1.7
South Dakota	-1.7
Minnesota	-1.9
Rhode Island	-1.9
Colorado	-2.3
Alaska	-2.4
California	-2.5
Connecticut	-2.9
Pennsylvania	-2.9
West Virginia	-2.9
Virginia	-3.0
Georgia	-3.2
U.S. Average	**-3.4**
Kentucky	-3.4
Arkansas	-3.5
Hawaii	-3.6
New Mexico	-3.6
Iowa	-3.7
New York	-3.8
Illinois	-4.2
Missouri	-4.7
Washington	-4.9
Idaho	-5.0
Indiana	-5.2
North Carolina	-5.6
Florida	-5.7
Texas	-5.7
South Carolina	-6.3
Wyoming	-7.8
Mississippi	-8.6
Louisiana	-8.8
Alabama	-9.2
Nevada	-9.2
Tennessee	-9.7

Source: Donald Boyd, *State Spending for Higher Education in the Coming Decade* (Boulder, Co: NCHEMS-2002).

to lightly taxed services and (b) the inability to collect sales taxes on Internet-related transactions.

- State revenue dependence on excise taxes is growing, and
- Growth in these revenues lags behind overall economic growth.

On the expenditure side, many states will need to rapidly increase their outlays for Medicaid, the health insurance program for the poor and medically needy. According to the experts, Medicaid spending is expected to grow by about 10 percent a year, which will drive up overall spending considerably.

Impact on Higher Education

The Trend

During the 1990s, the share of state budgets devoted to higher education decreased, as Harold Hovey noted in *State Spending for Higher Education in the Next Decade*: *The Battle to Sustain Current Support* (1999): "Over the past decade the percentage increases in state support for higher education have been smaller than the percentage increases in total state budgets. . . In other words, higher education isn't competing successfully with the attentions of other forms of state funding."

Stated another way, higher education's share of the overall pie continues to get smaller, both nationally and in most states. The size of the pie increased significantly in the nineties. This provided additional revenues for higher education, but it masked the reality that in most states the share continued to shrink.

The Prospects

These projections suggest that the fiscal prospects for higher education are not rosy. The pie is no longer expanding; in some states it is shrinking. As higher education receives a smaller share of a smaller pie—a likely short-term scenario—colleges and universities and the students who enroll in them will face particularly difficult financial positions.

Even if state economies were to rebound to normal levels, however, higher education would continue to face strong competition for resources from other state-supported programs. In only eight states are higher education's requirements expected to grow more rapidly than the needs of other state and local programs (see Table 2). The rapidly escalating costs of Medicaid, more than anything else, explain why total state and local spending is projected to grow faster than spending for higher education in most states.

What Would Happen If . . . ?

The data in Table 2 reflect an assumption that services would continue at current levels (called "current services financing"). That is, Tables 1 and 2 present the funding picture *if no real growth in expenditures occurs for any program.*

Projections for the data in Table 2 are based on assumptions that:
1) State revenue structures in place in fiscal year 2000 will continue. The projections incorporate assumptions about how taxes respond to economic growth and about the impact of Internet-related transactions on sales tax revenue.
2) State and local governments will increase spending based on inflation, population changes, etc., but will not increase expenditures per unit (per student, per Medicaid recipient, etc.) more than inflation.

TABLE 2

Over the next eight years, just to maintain current levels of all public services (given current spending patterns):

- **Which states will face greater funding requirements from other services than from higher education?**
- **Which states will face greater funding requirements from higher education than from other services?**
- **How much additional % growth in spending is required to fund either the other services or higher education?**

States that will face greater funding requirements from higher education than from other services*	Extra annual % growth in spending required for higher education compared to all services
Nevada	1.9
New Jersey	1.3
Virginia	0.6
Connecticut	0.4
Arizona	0.3
Illinois	0.3
Massachusetts	0.3
Pennsylvania	0.1

*(given current spending patterns)

States that will face greater funding requirements from other services than from higher education*	Extra annual % growth in spending required for all services compared to higher education
Delaware	0.1
Colorado	0.2
Maryland	0.2
Rhode Island	0.2
California	0.3
Michigan	0.3
North Carolina	0.3
Florida	0.6
New York	0.6
U.S. Average	**0.7**
Alaska	0.7
Missouri	0.7
New Hampshire	0.7
Ohio	0.7
Tennessee	0.9
Georgia	1.0
Indiana	1.0
Kentucky	1.1
Wisconsin	1.1
Texas	1.2
South Carolina	1.4
Iowa	1.5
Minnesota	1.5
Washington	1.5
Arkansas	1.7
Kansas	1.7
Oklahoma	1.7
Hawaii	1.9
Oregon	1.9
Alabama	2.0
West Virginia	2.0
Nebraska	2.1
Utah	2.1
Idaho	2.2
Maine	2.2
Mississippi	2.2
Montana	2.2
Louisiana	2.7
Vermont	2.9
New Mexico	3.0
South Dakota	3.2
North Dakota	3.3
Wyoming	4.5

*(given current spending patterns)

Source: Donald Boyd, *State Spending for Higher Education in the Coming Decade* (Boulder, Co: NCHEMS-2002).

However, history suggests that this kind of restraint would be most unusual. It is reasonable to assume, for example, that considerable public support exists for increasing real spending on K-12 education (for instance, to reduce class sizes, raise standards, raise requirements for teacher qualifications, and reduce social promotion).

Changing some of the key assumptions about current services funding would paint a different—and, in most cases, a gloomier—picture of the state fiscal environment. For example:

•If state and local governments were to increase real per-pupil spending for K-12 education by 1.5 percent annually (rather than 0 percent, as assumed in the current projections), then the average projected structural fiscal shortfall would increase from 3.4 percent (see Table 1) to 6.2 percent; 49 of 50 states would face a shortfall; and Tennessee would face the worst shortfall, at 12.4 percent of revenue.

• If states were to increase real per-pupil spending for *both* K-12 education and higher education by 1 percent, then the results would be similar to the above case, but the distribution would differ across states. There would be an average shortfall of 6 percent, and 49 states would face a shortfall.

• On the other hand, if states were able to immediately stem sales tax losses related to Internet taxation, the average shortfall would decrease from 3.4 percent (see Table 1) to 2.4 percent, and 39 (rather than 44) states would face shortfalls.

• Finally, if Medicaid growth were slower by one percentage point across the board than assumed, then the average state shortfall would be reduced from 3.4 percent (see Table 1) to 2.1 percent; 37 (rather than 44) states would face a shortfall; and the worst shortfall would be in Nevada (8.0 percent).

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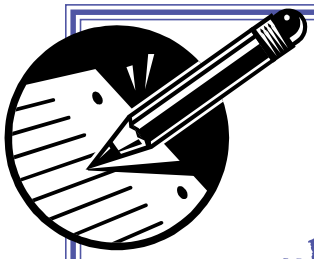

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Letter to the Editor

Let me start by stating that I enjoy and support the work of the Kentucky Long-Term Policy Research Center. I do have to take slight exception to the tone and content of one of your most recent articles in the latest issue of *Foresight* in the Scanning Kentucky section (Vol. 9 No. 4 2003). The article titled, "Water Infrastructure May Require $1 Trillion," takes a bit of a "gloom and doom" approach to the long-term infrastructure needs of the nation's drinking water industry.

First, 237,600 water main breaks per year may sound like a large number, but if you divide that number by the number of public water systems in the US (165,471 in 2001, according to EPA) it comes to less than two per system per year. Even if you divide this number by the number of public water systems classified as Community Water Systems (CWS) by EPA, the average number of main breaks only increases to roughly 4.4 breaks per system per year. The use of this number, by itself, doesn't seem to indicate that a problem exists. Community water systems are the utilities from which most people get their drinking water. In Kentucky, these are the nearly 220 municipalities, 123 water districts, 22 water associations, and a handful of privately-owned utilities that currently serve approximately 87 percent of the population.

In fact, the number cited by EPA seems to me to be very low. Water main breaks are common occurrences for water utilities. They do occur more frequently on older lines, but factors such as quality of pipe material, original installation practices, and weather are all probably more important. Most of the community water systems mentioned above employ trained professional operators who react quickly to instances where mains break to repair them in a timely manner according to established standards that ensure that any potential contamination is isolated and treated before placing the main back into service.

Secondly, you cite the recent lowering of the standard for arsenic by EPA. The standard was actually lowered from 50 parts per billion to 10 parts per billion, not ppm (parts per million). While some scientists have argued for even lower standards, there have been no scientific studies that I am aware of showing any correlation or connection between arsenic in drinking water and adverse health effects in the United States. More importantly to Kentuckians, our Kentucky Division of Water has determined that few, if any, water systems in Kentucky will have problems meeting the new standard of 10 ppb.

I don't want to downplay the importance of maintaining our drinking water infrastructure, or the expense associated with repairs and upgrades to an aging system. Many of our water treatment facilities are in need of expansion and improvement. The continued lowering of federal drinking water standards is also forcing systems to look at more advanced (and expensive) treatment technologies to stay ahead of the standards. Also, Kentucky's population growth and continuing expansion into unserved areas add to our need for expensive expansions and improvements.

So, where does Kentucky stand in regards to providing safe drinking water to its citizenry? Public drinking water in the United States is the highest quality, it is the most affordable, and is more widely available than in any country in the world. According to the EPA, approximately 73 percent of Americans are connected to community water systems. While many might assume that Kentucky would fail to meet the US average, as we often do in national rankings, this is certainly not the case. As stated earlier, approximately 87 percent of Kentuckians are served by community water systems. Kentucky ranks among the top two or three states nationwide in this category!

Kentucky still has counties where a large percentage of the population is not served by public drinking water, primarily in eastern Kentucky and in areas where groundwater supplies are plentiful. However, these are generally exceptions to the rule. In many counties, water systems have progressed to the point where public drinking water is available to nearly all residents, urban or rural. According to my research, more than 85 of Kentucky's 120 counties exceed the national average of 73 percent served by CWSs.

Why has Kentucky fared so well in this important measure of public health? And, why have we been able to avoid situations like the one mentioned in Walkerton, Ontario? For many years, our state regulatory agency has been requiring direct filtration for surface water plants and groundwater plants that are under the influence of surface water. In Walkerton, managers and operators were found to be negligent in ensuring proper levels of disinfection after a flood event washed animal feces into the system's wells. This is a prime example of groundwater being under the influence of surface water.

In Kentucky, we have been blessed with political leaders who have been able to secure much-needed funding for water and wastewater utility expansions through the years. We also have one of the most effective USDA Rural Development state offices in the United States. These are the folks (formerly called the Farmers Home Administration) who have contributed so much to the expansion of rural water systems since the 1960s. Finally, we have many excellent water systems, large and small, that have acquired the necessary training and experience to successfully manage and operate efficient public utilities.

Andy Lange

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Do Resources Produce Results?

Kentucky School Districts and the Adequacy of Funding Adequacy Models

By Phillip W. Roeder

In 1989, the Kentucky Supreme Court found the state's public school system unconstitutional for failing to provide all children an equitable and adequate education. To comply with that decision and provide an adequate education will cost about an additional $1 billion, according to a recent study sponsored by the Council for Better Education (CBE), Inc.[1] Raising this amount would not only require an immediate increase in education funding of about 23 percent to 25 percent, it would also increase the budget base by that amount for future funding. In all likelihood, the state will have to bear the burden of finding this additional money. The federal government has never been more than a modest source of funding for elementary and secondary education. Furthermore, the No Child Left Behind Act enacted by President Bush and the Congress in 2001 provides more mandates than monies for the states. At the local level, many Kentucky communities are "property poor" and therefore unlikely to be able to increase their local share of education funding. This implies that much of the proposed $1 billion increase would have to come from a state budget with a general fund of about $7 billion per year and little likelihood of increased revenue over the next several years.

For these and other reasons, some education advocates argue that only major reform of the existing state tax system can produce the necessary dollars to provide adequate funding for public schooling. They may be right. But before the state undergoes a major tax reform to generate additional resources for education, it is reasonable to ask whether it is likely that a significant investment of tax dollars will lead to higher student achievement and improved district and school performance.

All adequacy models, including the one used in the CBE study, assume strong and independent relationships between education resources (tax revenue and the human capital, programs, and services it buys) and organization performance. In other words, the models assume that resources produce results.

But is this a reasonable assumption? Research that systematically and empirically links education resources to results is in short supply. To help shed some light on this issue, I examine some available data about Kentucky school district performance. I begin with a comparison between the best- and worst-performing school districts on the 1999-2000 CATS accountability scores, taking into account the amount of resources available. I also consider other performance indicators such as drop-out and attendance rates and the number of students who go on to college, again within the context of resources available. I next take a longer look, determining how performance and resources have changed in all districts from 1993 to 2001. Finally, I take a prospective look, exploring how districts are projected to perform and how organization needs and resources relate to that expected performance.

Dr. Roeder is a Professor of Political Science at the University of Kentucky.

A Weak Link?

Table 1 compares resources for the top- and bottom-performing school districts in Kentucky based on 1999-2000 CATS accountability scores. The table shows that although in 1999 the top-performing districts on average have more than double the amount of local revenue per pupil than the worst-performing districts, the worst-performing group has considerably more state and total revenue. These comparisons of the best- and worst-performing districts suggest a negative relationship between total revenue per pupil and performance on the CATS accountability (i.e., top performers have less total revenue), while the relationship between local revenue per pupil and performance is positive (top performers have more local revenue). Analysis of data for all 176 districts supports these two hypotheses in that the simple correlation coefficient between district local revenue per pupil and CATS score in 1999 is moderately strong and positive (r = .56; r is a statistical measure of how well one thing correlates with another, with 1.0 indicating perfect correlation and –1.0 indicating none), while the correlation between total revenue and CATS score is somewhat weaker and negative (r = -.26). Comparing these two coefficients, it is important to observe that on average total revenue per pupil is about four times the amount of local revenue per pupil ($6,469 versus $1,651 in 1999).

Since Kentucky's testing and accountability system has faced much criticism and undergone many changes, some might ar-

TABLE 1
Kentucky School District Resources and Performance (1999-2000)

	CATS Top Tenth (n=18)	CATS Bottom Tenth (n=18)	District Mean*	District Median*	District Range*
CATS 2000 score	80.9	55.6	66.5	66.2	50.3 to 99.2
Change 1999-2000	1.83	2.01	1.81	1.70	-3.5 to +10.9
Percent Change 1999-2000	2.0	4.0	2.9	2.5	-5.2 to+18.7
Size (ADA) **	2,795	2,404	3,231	2,114	150 to 80,949
Revenue per pupil					
Local	$2,607	$1,191	$1,651	$1,504	$634 to $7,564
State	3,351	4,884	4,098	4,138	2,190 to 5,713
Total	6,364	7,099	6,469	6,332	5,407 to 9,879
Average Teacher Salary	$36,431	$34,915	$35,173	$35,116	$29,908 to $42,778

** The n for district mean, median, and range is 176 districts.*
*** The data for district size and revenues per pupil are for 1999.*

gue that other measures of district performance should be assessed. Table 2 provides simple correlations between indicators of district resources and additional measures of performance. The additional measures are taken from District Report Cards in 2000 and include dropout rate, attendance rate, transition to college, and unsuccessful transitions for the 171 districts with high schools. Indicators of resources include size or average daily attendance (ADA), local and total per-pupil revenue, and average teacher salary (all 1999); a composite measure of teaching resources that combines (1) proportion of classes taught by teachers with a major or minor in the subject area, (2) proportion of classes taught by teachers with professional development in the subject area, and (3) percentage of teachers with a master's degree or higher; spending per student; and student-teacher ratio.

TABLE 2
Correlations Between School District Resources and Performance *

	Resources						
PERFORMANCE	Size	Local Revenue	Total Revenue	Teacher Salaries	Teacher Resources	Spending per Student	Students per Teacher
Drop-out rate	.14	-.26	.16	-.04	-.07	.07	-.09
Attendance rate	-.11	.31	-.43	.01	.01	-.25	.21
Transition to College	.11	.47	-.20	.25	.08	-.17	.14
Unsuccessful Transition	-.10	-.35	.18	-.03	-.10	.16	-.15

* The bivariate correlations are for the 171 districts with high schools.

The first conclusion drawn from an analysis of the data in Table 2 is that almost all of the relationships between resources and performance are quite weak. The only moderately strong correlations are for local and total revenue—local revenue per pupil moderately and positively relates to both higher attendance rates and more transitions to college, and less local revenue relates to more unsuccessful transitions. In contrast, total revenue per pupil is moderately but negatively related to attendance and transition to college—more total revenue relates to lower rates of attendance and fewer transitions to college. Teacher salary is related weakly only to transitions to college, while spending per student is related negatively and weakly to both attendance and transition to college—more spending is associated with lower attendance rates and fewer transitions to college. Finally, districts with more students per teacher (fewer teacher resources) tend to have slightly higher attendance rates and transitions to college and fewer unsuccessful transitions, but the relationships are very weak. Overall, except for local revenue per pupil, there is little evidence that several different types of resources relate positively to performance or results.

One conclusion that could be drawn from Tables 1 and 2 is that the top-performing districts already have adequate resources, and that this amount is less than the worst-performing districts. Does this mean that the highest-performing districts are doing a more effective job with fewer but still adequate resources? Or, conversely, does this mean that the lowest-performing districts are much less successful in using and applying their greater resources to education programs and services? Studies with more complex research designs that examine and test other factors that may be causing these performance differences are necessary to help answer these questions. However, the data in Tables 1 and 2 illustrate some of the difficulties in attempting to link revenues and resources to education performance and also suggest the need for caution in accepting estimates of revenue adequacy.

Tables 1 and 2 also begin to address the important questions of what resources are purchased with education revenue and whether they help produce desired results. Teacher salaries, teacher training and experience, and student-teacher ratios do not appear to make much difference in district performance, despite the fact that personnel expenses comprise a substantial proportion of district spending. Table 1 shows that average teacher salaries for the top and bottom groups do not differ much, and Table 2 shows that teacher salary and several other measures of teaching resources appear to have little or no positive relationship to performance. This suggests that if the top-performing districts have better teachers and if this teaching excellence helps explain their outstanding performance, then having higher teacher salaries and more teachers per student, regarded by many as key educational resources, may not significantly influence district performance.

Tables 1 and 2 examine district performance for one school year; however, the resource-performance relationship also can be assessed over time by asking whether districts with the greatest improvements in accountability performance since 1993 also had the greatest increases in revenues. Table 3 examines revenue change for the most- and least-improved school districts from 1993 through 2001. The data show that districts that improved the least from 1993 through 2001 had much less local revenue per pupil from 1990 through 1999, but had somewhat greater proportional local revenue increases in that period than did the most-improved districts. In contrast, the least-improved districts had almost identical total revenue as the most-improved districts in 1990 ($3,364 versus $3,326), somewhat more total revenue in 1999 ($6,589 versus $6,234) and a slightly higher rate of total revenue increase than the most improved districts (96 percent versus 87 percent).

These comparisons suggest that for all districts the relationship between increased revenue and improved performance is ambiguous or nonexistent. In fact, for all districts, the correlation between percentage change in total revenue per pupil (1990-1999) and percentage change in accountability score (1993-2001) is -.05, and the correlation between change in local revenue per pupil and change in accountability score for these same time periods is .01. These weak correlations indicate that, after more than a decade of KERA, improvement in

TABLE 3 Per Pupil Revenue for Most– and Least– Improved Districts*		
	Most Improved (n=20)	Least Improved (n=23)
Local Revenue		
1990	$720	$542
1995	1,167	955
1999	1,754	1,429
Percent change 1990-99	144	164
Total Revenue		
1990	$3,326	$3,364
1995	4,990	5,258
1999	6,234	6,589
Percent change 1990-99	87	96

** The most-improved districts improved their total accountability scores both absolutely by more than 35 points and proportionately by more than 100 percent from 1993 through 2001. The least-improved districts improved both absolutely by less than 28 points and proportionately by less than 75 percent from 1993 through 2001. A list of these districts can be found in the publication – "School District Performance in Kentucky" (August 2002) available in PDF format at* http://www.uky.edu/~proeder/keraweb.htm.

district accountability performance has little or no relationship to increases in local and total revenue per pupil.

Projected School District Performance

The previous three tables examine past and present district performance. I next explore how districts are projected to perform and how needs and resources relate to that projected performance. Table 4 provides data on projected successful and unsuccessful districts using a simple forecasting model from a previous paper that compares several models for projecting school accountability scores.[2] The two groups of districts with projected CATS scores in 2014 and actual score in 2001 are listed at http://www.uky.edu/~proeder/keraweb.htm. Table 4 also provides several measures of "need"—district size and change in size, and poverty and change in poverty, as well as several measures of "resources"—per pupil local and total revenue and average teacher salary and changes in these indicators over time.

Several points should be made about needs and projected performance. Not only are projected unsuccessful districts much smaller than projected successful ones in 2001 (ADA of 2,007 versus 3,970), they also have declined in average daily attendance since 1991 (-10.2 percent) compared with a small increase in size for the projected successful districts (8.7 percent). Since the projected unsuccessful districts are quite small and have been getting smaller than the successful ones, does this indicate more or less need for resources? Another interesting indicator of need is poverty. Projected successful districts had a somewhat greater increase in proportion of children eligible for subsidized meals from 1992 through 2001 than unsuccessful districts (24.1 versus 16.7 percent); however, the projected unsuccessful districts had more than double the proportion of poor children in 2001 (66.4 percent versus 32.6 percent). Previous research has demonstrated that poverty consistently is the strongest predictor of school and district performance controlling for other plausible determinants, so it is not surprising that the projected unsuccessful districts have high poverty rates. On the other hand, it is interesting to note that the projected successful districts faced a slightly greater increase in poverty from 1992 through 2001 than the projected unsuccessful districts.

The findings for resources and projected successful and unsuccessful districts differ very little from those in the previous tables for other groups of districts. Projected successful districts had much more local revenue per pupil in 1991 and 2001, but a lower rate of increase from 1991 to 2001. Projected unsuccessful districts had more total revenue per pupil in 1991 and 2001 and a slightly higher rate of increase of total revenue in that period. Average teacher salary and increase in salary do not differ much for the two groups.

TABLE 4 Needs and Resources for Projected Successful and Unsuccessful Districts*		
	Successful (n=16)	Unsuccessful (n=26)
NEEDS		
Size (Average Daily Attendance)		
1991	3,484	2,325
2001	3,970	2,007
Percent Change	8.7	-10.2
Poverty (Percent Subsidized Meals)		
1992	26.3	59.5
2001	32.6	66.4
Percent Change	24.1	16.7
RESOURCES		
Local Revenue per Pupil		
1991	$961	$542
2001	2,377	1,430
Percent Change	153	183
Total Revenue per Pupil		
1991	$3,767	$4,066
2001	6,650	7,668
Percent Change	77	89
Teacher Salary		
1991	$28,925	$27,805
2001	35,916	34,859
Percent Change	24	25

**The projected successful districts are most likely to reach an accountability score of 100 points by 2014 based on Method C from a previous project projecting which schools are likely to meet the minimum goal by 2014 – "The KERA Endgame" (November 2001) http://www.uky.edu/~proeder/keraweb.htm. Successful districts are projected to score over 110 points by 2014 and scored at least 70 points on the CATS accountability scale in 2001; unsuccessful districts are projected to score less than 85 points by 2014 and scored less than 65 points in 2001. The districts in each group are listed in an Appendix at the above website. There are many other districts projected to reach 100 points by 2014 using the model, however this table compares districts most and least likely to achieve the minimum score.*

This simple analysis raises doubts about the fundamental assumption of most school funding adequacy models that a positive relationship exists between resources and results. Several indicators of district performance and resources for Kentucky school districts suggest that money alone does not buy results. The least successful Kentucky districts in 2000 actually have more revenue per pupil than the most successful ones, and district improvement in performance over the past decade has no relationship to increased revenues.

Conclusions

What are some possible conclusions from this analysis? Based on these data as well as many other studies, some will

conclude that money doesn't matter when it comes to organization performance. On the other hand, some studies find relationships between resources and performance. Money may matter, but demonstrating exactly how it matters has not been an easy task for education researchers and advocates.

An alternative conclusion is that substantially more revenue should be invested, but only in the worst-performing or most-disadvantaged schools and districts. Since Kentucky has achieved relative equity in financing but some school systems and individual schools continue to underperform rather substantially, it may be that to boost overall performance, most new state tax dollars should be allocated to the worst-performing districts and schools. But this conclusion still begs the question of whether the increased resources would likely achieve intended outcomes. The testing and accountability data certainly suggest the worst performers need something, perhaps much greater investments than the top-performing systems. But the question of how these increased revenues would be applied requires much more study. Unfortunately for this alternative, it is doubtful that a majority of policymakers, school leaders, and perhaps more importantly, taxpayers are prepared to support such a radical redistribution of resources, even for the relatively popular goal of equal opportunity.

A third conclusion is that substantially more money should be invested in all Kentucky districts but only for organization resources and programs demonstrated to be effective. This returns to questions about the fundamental assumption of resource adequacy models that "resource configurations/strategies are able to produce desired results." The limited data analyzed in this paper do not necessarily demonstrate that resources don't produce desired results, but they do suggest that advocates for substantially increased investments in public education based on the concept of revenue adequacy need to do much more work to show Kentuckians how the investment of $1 billion will lead to more effective school systems.

[1] D. Verstegen, "Calculating the Cost of an Adequate Education in Kentucky," Feb. 2003.

[2] See Method C in "The KERA Endgame," Nov. 2001, available at http://www.uky.edu/~proeder/keraweb.htm.

The debate continues ...

Our next issue of *Foresight* will feature an article by Dr. Blake Haselton, Superintendent of Oldham County Schools and Vice Chair of the Council for Better Education (CBE). Dr. Haselton will respond to Dr. Roeder's article and present findings from the CBE-sponsored research to which Dr. Roeder refers.

In short, the CBE study found that the Commonwealth would need to spend an additional $1 billion a year to fully implement the Kentucky Education Reform Act and realize its lofty goals for student achievement.

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📖 **Talking Back: Kentucky High School Students and Their Future Education Plans** (2001) A report on findings from a 2000 survey of Kentucky high school students about their plans for postsecondary education.

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www.kltprc.net

Scanning Kentucky

Emerging trends and issues that may affect the Commonwealth's future

State Leaders Face Fiscal Crisis

The nation's 24 new governors faced the worst state financial crisis since at least World War II when they took office this year, *The New York Times* reports. Moments after being sworn in as Illinois' first Democratic governor in 26 years, Rod R. Blagojevich dropped the budget bomb: the estimate of the deficit he had campaigned against had doubled since his election, to more than $5 billion. Many candidates ousted incumbents this year by highlighting the fiscal mess their states are in, only to return from election-night victory celebrations to find gaps much larger than expected.

How these newly elected governors and their colleagues patch their states' deficits and how voters react to the resulting cuts in services and tax increases will likely have significant long-term political implications. The extent of state fiscal problems is staggering, with the collective shortfall for the current year alone estimated at $45 billion and a projected gap next year of $60 billion to $85 billion—deficits of 5, 12, even 20 percent or more of the budgets in some states.

Since most states emptied rainy day funds and other one-time sources like the tobacco settlement to balance last year's budgets, the new governors have spent their transitions surveying ugly options: layoffs, tax increases, new fees, and program cuts. Those who pledged not to raise taxes—like Mr. Blagojevich—face doing less with less.

Implications for Kentucky. The Commonwealth's newly elected governor will no doubt face the same fiscal dilemma in 2004 that this year's new state CEOs have found awaiting them. The budget shortfall is Kentucky's most immediate and arguably its most serious problem. What's more, economic prognostications suggest it is unlikely to go away anytime soon. Nothing less than the momentum that Kentucky finally appears to have gained in regard to educational and economic progress is at stake. However, the incremental progress we have made is tenuous at best. If we fail to sustain our commitment to education and child well-being, the impact of today's shortfalls could be felt for decades to come.

States Move to Contain Medicaid Costs

Two thirds of states report that they are cutting Medicaid benefits, increasing copayments, restricting eligibility, or removing poor people from the rolls in response to soaring costs and plunging revenues. Specifically, a survey of all 50 states by the National Governors Association finds that 16 are cutting Medicaid benefits, 15 are restricting or reducing eligibility, and 4 are increasing the copayments they charge beneficiaries. As a result, somewhere between 1 and 2 million low-income Americans are expected to lose their health insurance. In addition, the survey found that 21 states were freezing or reducing Medicaid payments to doctors, hospitals, nursing homes, and other providers of care.

Many states are cutting services for adults, including coverage of dental care, eyeglasses, hearing aids, and physical therapy. But some have found that is not enough. So they are debating whether parents or childless adults should be taken off the rolls first. A decade ago Washington and Oregon took pride in their expansions of Medicaid and other health programs, but both states are now wrestling with the unpleasant choice of whether to cut benefits or end eligibility for some recipients. Washington has eliminated hearing, vision, and dental benefits for adults on Medicaid; ended special payments to hospitals for charity care provided to uninsured people; and cut off 60,000 of the 120,000 low-income childless adults enrolled in a state program known as the Basic Health Plan.

During the last fiscal year, the cost of Medicaid, which is shared by the federal government and states, rose 13 percent, the biggest increase since 1992. Medicaid provides health care for more than 40 million low-income people, from elderly nursing home patients to dependent children, at an annual cost of more than $250 billion.

Implications for Kentucky. Here again, Kentucky faces a plight shared by the vast majority of states: soaring costs and declining revenue. And Medicaid costs are expected to rise at a steady pace over the course of the next few years. Consequently, the question of how best to control costs without undue harm to some of the state's most vulnerable citizens presents one of the most difficult challenges policymakers face, even as they are being pressed to expand Medicaid to include prescription drug benefits to seniors and help various populations of the uninsured.

The challenge of maintaining the long-range viability of this critical health care safety net and improving both fiscal and health outcomes will demand a programmatic discipline. Successful state experiments that enable quality care within prescribed boundaries must be encouraged, explored, tested, and adopted where applicable. Rising costs and the declining likelihood of increased federal support are likely to force Kentucky and other states to adopt more of the kinds of practices that private insurers are employing to contain costs. Managed care, the demise of which had appeared imminent, or some new version of practices designed to limit unnecessary utilization and improve long-term health outcomes, may enjoy a resurgence and become standard practice for public health care.

Tax Cut May Affect State Revenues

President Bush's call to eliminate taxes on corporate dividends, a centerpiece of his economic plan, is raising alarm among state and local officials who say it could add to the growing budget pressures on states and cities. Budget experts conclude that the provision on dividends would cost state and local governments tens of millions of dollars a year in lost revenue, *The New York Times* reports.

States fear they will lose in two ways. Because state income tax laws are tied to federal law, the states will also stop taxing dividends. In addition, the removal of taxes on dividends makes stocks a more attractive investment vehicle than traditionally tax-free municipal bonds. Overall, the officials believe potential losses could far exceed the $10 billion in state aid included in Mr. Bush's 10-year plan, much of which is earmarked to help the unemployed. The National Governors Association issued a statement, saying that because Mr. Bush's plan did not include "direct flexible assistance" to states, it would "exacerbate the current state fiscal problem."

Implications for Kentucky. Should this proposal become law, policymakers in already cash-strapped Kentucky may be faced with the challenge of replacing still more lost revenue.

Health Care Spending Soars

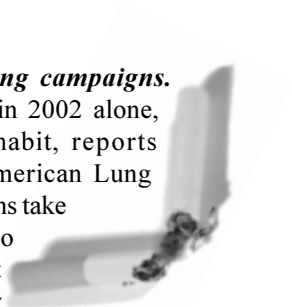
Spending on health care is increasing at the fastest rate in a decade, reflecting greater use of hospitals and prescription drugs, and the declining influence of managed care, *The New York Times* reports. The steep increase in spending has put immense new pressures on consumers, employers, and public programs. In 2001, health spending rose 8.7 percent, to $1.4 trillion, and accounted for 14.1 percent of the total economy, the largest share on record. Spending averaged $5,035 for each person in the United States. The increase came even as the nation slipped into a recession, exacerbated by the terrorist attacks of September 11, 2001.

In a 2001 survey, the U.S. Census Bureau found that revenues of the nation's health care and social assistance firms totaled $1.15 trillion in 2001 and increased 8 percent over 2000. Hospital revenues grew to a total of $462 billion in 2001, an increase of about 7 percent or more than $30 billion. Private insurance ($170 billion), Medicaid ($56 billion), and Medicare ($48 billion) were the major sources of hospital revenue, representing increases of 9.5, 7.4, and 6.5 percent, respectively. During the same time, the revenues of physicians' offices (employer firms only) totaled $219 billion. About half ($106 billion) of these revenues came from private insurance, while $53 billion came from Medicare, an increase of 8.8 percent, and $15 billion from Medicaid, which rose 8.7 percent. The out-of-pocket payments that patients made to physicians contributed $24 billion in revenue and increased 3.3 percent.

Implications for Kentucky. Experts predict that the rapid growth of health care costs will likely lead to new efforts to rein them in. The steep increase adds to the burden on states wrestling with severe fiscal problems and businesses struggling with a soft economy. It also intensifies pressure on Congress to move health care to the top of its agenda.

The major reason cited for the increase in health spending is an increase in the *amount* of medical goods and services purchased to care for an aging population. But citizens are paying for rising health care costs in other ways as well. In addition to increasingly discomforting out-of-pocket expenses, citizens finance two central government entitlement programs—Medicare and Medicaid—that crowd out resources for other vital services and pay higher prices for goods and services when businesses pass through the skyrocketing costs of employee and retiree benefits. As costs for health care rise, the pressure for solutions to this brewing crisis will only mount.

Many Women Smoke to Control Weight



Billions have been spent on antismoking campaigns. Cigarette taxes were raised in 18 states in 2002 alone, making lighting up a very expensive habit, reports *Business Week*. Yet every day, the American Lung Association (ALA) estimates that 4,800 teens take their first drag, and of those, about 2,000 go on to become addicted to cigarettes. Most disturbing, teen smoking rates rose steadily throughout the 1990s after declining in the 1980s.

Given that 80 percent of adult smokers develop their habit before age 18, researchers are increasingly focusing on the reasons why kids start smoking. Their main discovery: nicotine's proven ability to suppress appetite and speed up metabolism has made it a popular diet tool for girls and women. Studies by the University of Michigan's Monitoring the Future project found that 14-year-old girls are twice as likely to try smoking as boys, primarily because of concerns about weight. Numerous surveys have found that some 30 percent of teenage girls and adult women cite weight control as the main reason they smoke, far greater than any other justification.

Implications for Kentucky. The nation's highest smoking rates lie at the root of a host of costly, debilitating, and deadly health problems in Kentucky. These findings offer insight into ways of reducing what have become skyrocketing rates of addiction among girls and women. By systematically encouraging exercise and a proper diet, starting with our youngest citizens, we can begin to counter high smoking rates among women and men and, at the same time, reduce obesity, a cause of health problems that is nearly equally as destructive, if not more so, than smoking.

Whether the sharp hike in the cost of cigarettes in some states will prove to be more of a deterrent to smoking among teens than some antismoking campaigns is yet to be seen. Some states have waged aggressive antismoking campaigns aimed at teens that have achieved measurable results. Cost, however, is thought to be the ultimate discouragement for teenagers.

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The 2003 Hellard Award will be presented at the Center's 10th annual conference, November 18, 2003, at the Kentucky International Convention Center in Louisville, Kentucky. See conference details on page 4.

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