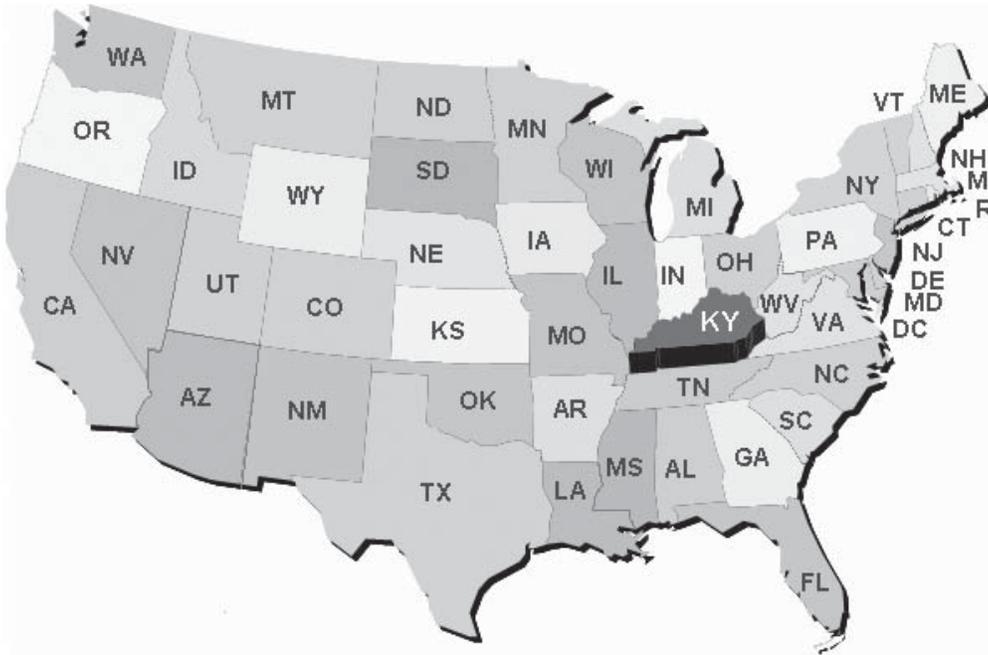


# A Compendium of State Education Rankings



## Research Report No. 345

Legislative Research Commission

**Office of Education Accountability**

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# **A Compendium of State Education Rankings**

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## Foreword

In December 2006, the Education Assessment and Accountability Review Subcommittee approved a research agenda for the Office of Education Accountability that included this Compendium of State Education Rankings.

This publication is intended to offer legislators and the public a convenient source of information about how Kentucky compares to other states on education indicators published by government and independent authors. Included are ranking tables, information about the authors and data sources, and discussions of data limitations and other issues intended to enhance readers' use of the report. The compendium will be updated and issued annually.

Robert Sherman  
Director

Legislative Research Commission  
Frankfort, Kentucky  
June 18, 2007



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## Chapter 1

### State Education Rankings Introduction

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This is the first of an annual compendium of education rankings and data.

The No Child Left Behind Act and emphasis on high-stakes accountability systems have increased the visibility of elementary and secondary education issues. A number of organizations and government agencies publish rankings of how states compare on education spending, performance, and other indicators. Frequently, legislators are asked about these rankings and Kentucky's education system in general. The purpose of this compendium is to provide a convenient reference tool containing rankings and related information. This is the first of an annual compendium of major works that rank states with respect to education indicators.

Organizations have a variety of purposes for publishing rankings. Some seek to inform public policy debates. Others focus attention on particular education policies and practices, to advocate for or against them. The quality and complexity of these rankings vary, and at times, the findings are contradictory. Nonetheless, high-ranking states, interest groups, and litigants frequently cite these rankings.

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Different organizations' rankings may disagree due to such factors as different definitions, measures, methodologies, time periods, data quality, or interpretation.

Discrepancies among rankings can arise from many factors, such as different definitions, measures, methodologies, time periods, data quality, or interpretation. While rankings can provide useful insights into Kentucky's performance relative to other states, it is important to emphasize that all rankings are subject to data and methodology issues that can limit their reliability and validity. Where possible and appropriate, this compendium provides information on the validity, reliability, and appropriate uses of the indicators included in various published rankings.

#### Organization of This Compendium

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This report addresses how rankings were chosen and how to use and interpret them; rankings on federal government data; student assessment data; and rankings by independent organizations.

The remainder of Chapter 1 discusses how rankings were chosen for the report and how to use the compendium. It also includes important issues to consider when evaluating and interpreting the rankings.

Chapter 2 reports education statistics compiled by federal government sources, grouped by the following topics:

- students and their families and communities;
- teachers and other staff;

- districts and schools; and
- school finance.

Chapter 3 focuses on state rankings of student assessment data compiled by governmental and independent organizations.

Chapter 4 presents state education rankings prepared by independent organizations—that is, nonprofit or for-profit organizations that are not directly part of any government structure. Rankings appear in alphabetical order by the name of the organization that publishes the rankings.

The Appendix contains a table of state abbreviations, which appear in most of the tables and charts.

### How Rankings Were Chosen for This Report

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Inclusion in this compendium is not an endorsement. Rankings that have weaknesses but that are widely cited may be included, with caveats, so that legislators will have convenient access to them.

It is important to emphasize that inclusion in this compendium is not an endorsement of quality. Rankings that have weaknesses but that are widely cited may be included, with cautionary information about their reliability and validity issues, so that legislators will have convenient access to this information.

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Exclusion does not necessarily mean a work is unimportant; priority went to works that are widely used, inclusive of all states, published regularly, provide a unique analysis rather than a simple republication of data, and quantified in a way that allows states to be ranked.

Similarly, exclusion from the compendium does not imply that a work is unimportant. Given the enormous volume of available information and the finite scope of a compendium, it was necessary to set priorities for inclusion. For this first annual compendium, priority is given to works that are

- widely read and cited;
- inclusive of all 50 states;
- published annually or biennially;
- accompanied by analysis rather than a republication of government data points; and
- quantified in a way that allows the ranking of states.

### How To Use This Compendium

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Publisher, sponsor, and source information and caveats about data limitations provide insights into the credibility of rankings.

The brief summaries on publishers, sponsors, and data sources and the caveats about data limitations are important supplements to the rankings reported in the compendium because they allow readers to evaluate the rankings' credibility and usefulness.

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Comparing Kentucky’s education system to those in other states provides insights into how much progress has been made; the potential for further progress, and the ability to compete for skilled workers and business investments.

State rankings give legislators and other policy makers various perspectives on how Kentucky’s education system compares to those of other states. Such comparisons provide insights into the state’s current situation, how much progress has been made, and how much progress is possible in the future. They also shed light on issues related to educational performance, such as Kentucky’s ability to compete with other states in attracting and retaining skilled workers and business investments.

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Rankings can be controversial because they depend on the measures and methods chosen. A state can perform well on one set of rankings and poorly on another.

However, as a previous report by the Office of Education Accountability (OEA) has noted, “efforts to rank the states on educational performance and resource allocation are controversial because the evaluations depend upon the outcomes examined, the statistical methods used, and the ways in which measures are standardized so states’ performance can be compared. Therefore, the same state can appear to perform well on one organization’s rankings and poorly on another” (Commonwealth. Legislative 19-20).

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Bias is not always blatant or deliberate; the simple act of choosing what indicators to report is a subjective judgment, which should be considered by those who read and use rankings.

Rankings that seem to support or oppose controversial policies often stimulate debates about possible biases on the part of the publishers and sponsors. Bias is not always blatant or deliberate; the simple act of choosing what indicators to report is a subjective judgment, which should be considered by those who read and use rankings.

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Rankings reports are rarely subject to systematic reviews. Several organizations propose criteria that could be useful for this purpose.

Apart from debates regarding one measure or another, rankings reports are not always subject to systematic reviews of their quality. In response to this unmet need, research centers at Arizona State University and the University of Colorado recently formed a Think Tank Review Project that evaluates education rankings (Arizona State). Although this project has been criticized for the way evaluation criteria are applied, the criteria are useful to consider. Several other organizations have proposed guidelines that are also useful. The remainder of this chapter summarizes these criteria and discusses important issues to consider when evaluating and using state rankings.

## Issues To Consider When Evaluating Rankings

### Evaluation Criteria

There is widespread agreement that the most important factors to consider are the validity and reliability of the indicators on which states are ranked.

When evaluating rankings and the underlying indicators on which they are based, there appears to be universal agreement on the importance of two criteria: validity and reliability. Validity involves the degree to which the measurement accurately reflects the concept being analyzed (Pedhazur and Schmelkin). Reliability is the extent to which an indicator consistently produces the same results under the same circumstances; this requires consistent data collection practices over time and across states.

Validity and reliability are enhanced by following the Think Tank Review Project's criteria that rankings must be based on a thorough and balanced literature review, full and unambiguous tests of hypotheses, and samples that closely resemble the population they are supposed to represent.

The Think Tank Review Project evaluates reports using criteria based primarily on guidelines from the American Psychological Association (Cookson 9-11). These criteria include

- thorough and balanced literature review;
- reliable and valid outcome measures and data collection techniques;
- full and unambiguous tests of hypotheses; and
- those measured (such as students or schools) include or at least mirror the entire population they are supposed to represent.

The National Forum on Education Statistics adds that indicators must also be practical to use, timely, cost effective, and easy to interpret.

The National Forum on Education Statistics echoes criteria 2 and 3 above and adds that indicators should have an optimal balance of usefulness, validity, reliability, timeliness, cost effectiveness, and ease of interpretation (*Forum Guide 2-9*).

The Annie E. Casey Foundation calls for more emphasis on desired outcomes than on the policies or programs used to achieve those outcomes. In addition, in order to track progress over time, it is important to choose indicators that are likely to continue to be available over the long term.

The Annie E. Casey Foundation has developed the following criteria for selecting indicators for its annual publication of child well-being indicators (*2006 KIDS 178*). The compendium discusses the *KIDS COUNT* rankings in Chapter 4.

**Reliable source.** To maximize reliability, Annie E. Casey uses only federal government data, usually published or released to the public, so that anyone can verify the information.

**Available and consistent over time.** Some indicators, especially program and administrative data, lack comparability over time due to changes in policies, practices, and methodologies.

**Available and consistent for all states.** In practice, this means data collected by the federal government or another national organization. State-collected data may be accurate and reliable

within a state and still be inconsistent across states due to different data collection and reporting procedures.

**Outcome focused.** Programmatic or service data, such as dollars spent on education, are not always related to the actual well-being of children. Focusing on outcomes reflects the ultimate goal of improving child well-being, regardless of the policies or programs used to achieve it.

**Easily understandable for the educated public.** Complex, esoteric measures cannot be communicated effectively.

**Relatively unambiguous interpretation.** If the value of an indicator changes over time, there should be widespread agreement as to whether this is considered good or bad.

**Likely to continue to be produced.** Data from a one-time study may be excellent but are not useful for tracking change over time.

While these criteria for evaluating indicators are related to child well-being, they can be generalized to other types of measures included in the compendium.

### **Ranks Tell Only Part of a Story**

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Where a state ranks tells only part of the story. Usually, rankings do not indicate how far apart states are or whether a state is objectively "good" or "bad."

It is important to remember that a rank, as a statistic by itself, is a summary of other information. It is essential to look at the underlying indicator or index.

A rank does not indicate how far apart states are from each other. For example, in 2005, Kentucky ranked 42<sup>nd</sup> on gender equity in grade 4 math scores (U.S. Dept. of Ed. Natl. Ctr. *NAEP State*). However, the difference between Kentucky and the top-ranked state is miniscule, and not one state shows a statistically significant difference from any other. This suggests that observed differences among states could be due to small, random measurement errors. If ranks had been based on only statistically significant differences, all states would be ranked the same. In contrast, two states that are only one rank apart can be extremely far apart in terms of the measure on which they are ranked. For example, when states were ranked on the growth in pre-school enrollment of 4-year-olds, North Carolina ranked number one, with a growth rate of 1,128 percent. This was about three times the rate of the number-two state, New Mexico, whose enrollment grew by 387 percent (Natl. Inst. *The State*17).

A rank may not provide objective information regarding whether a state is “good” or “bad.” As researcher Gerald Bracey points out, in every ranking, someone must rank first and someone else must rank last, regardless of the level of the group (59). The last Olympic runner to cross the finish line ranks last but could not be considered slow. Conversely, if everyone performs poorly, a top rank is not saying much. For example, in 2005, Massachusetts ranked first on the grade 8 Natl. Assessment of Education Progress (NAEP) math test. Yet only 43 percent of Massachusetts students scored at a level considered proficient (U.S. Dept. of Ed. Natl. Ctr. *NAEP Data*). In fact, a recent study suggests that only a handful of countries in the world would show proficiency of over 50 percent on the NAEP math test (Phillips 9).

When two or more states have the same value, they each receive the same rank. States with tie scores are usually listed in alphabetical order according to their shared rank. One impact of tie scores is that the 50<sup>th</sup> state is not 49 discrete places below the top-ranked state. For example, Chapter 2 includes a ranking published by Achieve, Inc. that estimates the number of students who graduated from college on time out of every 100 high school freshmen in the state in 2002. The values range from a high of 29 students in Massachusetts to a low of 10 students in New Mexico and Nevada. Kentucky ranks 33<sup>rd</sup> with an estimated score of 15 students and is tied with Arkansas, Oregon, and Washington. However, because there are so many tied states, there are only 13 groups of states ranked higher than Kentucky.

## Drawing Policy Implications

### Using Different Indicators for Different Purposes

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Policy implications depend on the measures on which states are compared and ranked; different indicators are useful for different purposes, and each has different policy implications.

Policy implications depend on the measures on which states are compared and ranked; different indicators are useful for different purposes, and each has different policy implications. The National Forum on Education Statistics emphasizes the need to consider indicators in context. For example, among the numerous ways to compare states with respect to school finance each has a different purpose.

- Reporting local and state education spending per capita provides a quick overview of school finance. Often this is cited as a measure of a state’s commitment to education. However, the data are not adjusted for differences in such things as the proportion of the population that is school age, the proportion of students who have special needs, the costs

of goods and services, the taxpayers' ability to pay, and the efficiency of the uses of education funds.

- Reporting education spending per \$1,000 in personal income adjusts for taxpayers' ability to pay. It also adjusts somewhat for the costs of goods and services, since these correlate with personal income. However, since personal income is merely the sum of the incomes earned by all persons in the state, and therefore reveals nothing about the distribution of income, personal income would not be appropriate for exploring other affordability issues, such as the ability of students and their families to afford college. Median income would be more appropriate.
- Reporting education spending per student makes it possible to compare two states with different proportions of the population that are school age. However, as the National Forum on Education Statistics points out, high education expenditures per pupil could indicate any number of things, including extraordinary commitment to education, wasteful spending, or a large proportion of students with special needs (*Forum Guide 4*).

Note that none of the above measures adjusts for the efficiency of how funds are used; there is no consensus on how such adjustments should be made, as OEA has discussed elsewhere (Commonwealth. Legislative).

As mentioned earlier, an organization's point of view influences even the simple act of choosing indicators. For example, as OEA recently noted, when *Education Week's Quality Counts 2006* assigned school climate grades to states, 20 percent of that grade was based on charter school policy and availability (Commonwealth. Legislative 22). However, policy makers and education experts are divided about charter schools. Advocates say they offer new opportunities tailored to students' interests and abilities. Critics say charter schools take the best students, leaving traditional schools worse off. Whether states that do not permit charter schools—such as Kentucky—should be evaluated negatively depends upon one's view of the impact of the policy.

Some indicators have been evaluated, used, and refined enough to be relatively valid and reliable; 44 such indicators were identified and profiled by a task force selected by the U.S. Department of Education (Natl. Forum. *Forum Guide* iii-vi). For example, assessment scores, average years of teacher experience, and average class size usually generate high-quality data, even though these measures have some limitations. On the other hand, measures

of new or complex areas of interest—such as technology availability, professional development, and leadership—generally produce less reliable and valid data (U.S. Dept. of Ed. Natl. Ctr. *Monitoring* iii).

### **Interpreting Indicators in Context**

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Before drawing conclusions about policy implications, it is important to consider the full context of an indicator, including related factors.

Before drawing conclusions about policy implications, it is important to consider the full context of an indicator, including related factors. For example, Kentucky ranked 38<sup>th</sup> on the 2005 NAEP grade 8 math test. However, the Commonwealth also had a smaller poverty achievement gap than most states, ranking 8<sup>th</sup> with respect to the similarity of scores between students who are eligible for the federal lunch program and those who are not eligible. This may reflect education reform efforts that have increased state funding to lower-income districts. It may also suggest that even when families are well off they are not using their income in ways that improve their children’s educational opportunities. The point is that rankings alone may not provide sufficient information to interpret the results appropriately.

### **Anticipating the Consequences of Policy Changes**

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Policy initiatives to improve one indicator can have side effects on other factors.

Policy initiatives to improve one indicator can produce side effects on other factors. For example, when an initiative successfully reduces the high school dropout rate, this may lead to a subsequent decrease in the percentage of high school graduates who go on to college. The National Forum on Education Statistics calls this a “balloon effect.” It noted: “Push a system in one place and it will expand in another place” (*Forum Guide* 5).

### **Watching for Conflicting/Paradoxical Findings**

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It is important to delve below the surface; rankings on the overall group may mask important differences between subgroups.

Rankings on the overall group may mask important differences between subgroups. Bracey warns education researchers to beware of “Simpson’s Paradox,” in which a large group can show one trend or pattern over time, while subgroups within that large group can show trends or patterns that are exactly the reverse. This paradox occurs when the composition of the large group is shifting over time. For example, between 1981 and 2005, the national average SAT verbal score rose only 4 points for all test takers combined. However, when scores are examined within each ethnic group, every group’s average score rose far more quickly—10 points for whites and even more for non-white groups (see Table 1.1). Underlying the paradox is the shift in the composition of test takers; whites, who have the highest average score, made up

85 percent of 1981 test takers but only 63 percent of 2005 test takers (Bracey 64-65).

**Table 1.1**  
**Simpson’s Paradox**  
**SAT Verbal Scores by Ethnic Group and**  
**Ethnic Makeup of Test Takers: 1981-2005**

Gains for Ethnic Groups—SAT Verbal				Percent Composition of Test-Taking Pool	
Ethnic Group	1981	2005	Gain	1981	2005
White	519	529	10	85	63
Black	412	433	21	9	12
Asian	474	511	37	3	11
Mexican	438	453	15	2	5
Puerto Rican	437	460	23	1	1
American Indian	471	489	18	0	1
<i>All Groups</i>	<i>504</i>	<i>508</i>	<i>4</i>		

Source: Bracey 64-65.

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Other paradoxes should be anticipated. For example, as Kentucky’s population grows quickly in some areas and declines in other areas, trends in state averages over time may not match district-level trends.

Paradoxical findings should be anticipated whenever averages are tracked for a group over time, while the composition of the group is changing. For example, as Kentucky’s population grows quickly in some areas and declines in other areas, trends in state averages over time may not match district-level trends.

### Other Notes

#### Substantive/Practical Significance

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Even when differences are statistically significant, it is important to consider whether the findings are plausible, supported by other evidence, and important enough to act on.

The increasing use of databases with large sample sizes and hundreds of indicators to analyze has kindled debates among researchers about the usefulness of statistical significance testing (McLean). When sample sizes are very large, almost every difference is statistically significant, which merely means that observed differences are probably not due to random sampling errors. Even if differences are statistically significant, some may be trivial, offering no practical significance for making decisions in the real world. In addition, significance at the 95 percent level is generally considered good, but this still means that 5 out of every 100 differences tested may be falsely found to be significant. For these reasons, it is important to ask the following questions about statistical significance:

- Is there a plausible cause-and-effect scenario that supports this finding? Can the cause-and-effect be trusted, or is there some other factor at work?
- Do other findings corroborate or contradict this?

- Is this difference something worth acting on, or is it trivial? (Weimer and Vining 398-402).

### **Data Comparability**

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Rankings on the same measure may seem to contradict if they use slightly different points in time or assumptions.

Detailed source information is important, especially for resolving contradictions between sources. Collecting, checking, cleaning, analyzing, and publishing data usually requires several months or even years. Different rankings that appear to use exactly the same source can conflict if they reflect slightly different points in time. In addition, forecast data can yield very different results than final data.

### **Random Fluctuations Over Time**

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Measures tend to fluctuate at random over time. Therefore, it is best to track indicators over a number of years.

Measures tend to fluctuate at random from year to year and sometimes these changes are not statistically significant. Test scores, in particular, can be very volatile. The best way to determine the degree of progress or decline of an indicator is to track the measure over time. Combining multiple years of data and/or multiple content areas into an index also helps to smooth out fluctuations (Way).

### **Comparison Groups**

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In addition to comparing Kentucky to the national average, it is also useful at times to compare to surrounding states or Southern Regional Education Board states.

In addition to how Kentucky compares to the national average, other comparisons may be useful at times. For example, comparing teacher salaries in Kentucky to those in surrounding states provides insights into Kentucky's ability to recruit and retain teachers. Some policy makers also find it useful to compare Kentucky to other groupings, such as states in the Southern Regional Education Board.<sup>1</sup>

### **Fiscal and School Years**

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This compendium refers to fiscal year by the ending year. For example, 2005-2006 fiscal year is referred to as FY 2006.

Fiscal year and school year are used interchangeably, since most school districts' fiscal years start July 1 and end June 30. Currently, the only exceptions are districts in Alabama, which follows the federal fiscal year ending September 30; and in Nebraska and Texas where fiscal years end August 31. The federal government usually does not adjust data for states that have fiscal

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<sup>1</sup> The Southern Regional Education Board is a nonprofit, nonpartisan organization that works with policy makers in member states to improve pre-K through postsecondary education. Member states include Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

years different from July 1 to June 30 (U.S. Dept. of Ed. Natl. Ctr. *An Historical Overview*). This compendium identifies fiscal year by the ending year, for example, the 2005-2006 fiscal year is referred to as FY 2006.

### **States and District of Columbia**

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For the sake of brevity, this compendium uses the term “states” to mean the District of Columbia in addition to the 50 states.

Since most of the measures in this compendium are available for all states and the District of Columbia, ranks range from 1 to 51. For the sake of brevity, this compendium uses the term “states” to mean the District of Columbia in addition to the 50 states.

### **Conclusion**

Despite some limitations, state education rankings can provide a useful summary of how states compare on important policy and performance indicators. For example, state rankings of NAEP scores have highlighted Kentucky’s progress in improving student achievement, as recently noted by Robert Sexton, executive director of the Prichard Committee.<sup>2</sup> Sexton commented that the rankings allow readers to see that where once Kentucky might have compared itself to the lowest-ranking states, “today our student achievement in reading, for instance, compares to New Jersey, Michigan, and Oregon...We think this is the kind of information people like to see....”

State rankings can be an important tool in making comparisons between states, and they can illustrate not just how far a state has to go but also how far it has come in improving education. Their value depends, in part, on how well the reader understands how the rankings have been compiled. This chapter has discussed the issues and questions that should be considered as well as criteria that can assist readers in evaluating the relative usefulness of the rankings in evaluating Kentucky’s performance.

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<sup>2</sup> The Prichard Committee is an independent organization that promotes education policy it believes will improve the condition of education in Kentucky.



## Chapter 2

### State Education Rankings From Federal Government Sources

#### Introduction

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This chapter provides state comparisons and rankings from the federal government, which is often the original source of data published by other organizations. Federal data are relatively consistent, accurate, complete, and well documented. However, data that the federal government collects from local and state agencies is subject to some differences in definitions and coding procedures.

This chapter provides state comparisons and rankings from the federal government, which is often the original source of data published by other organizations. Federal government information has a number of advantages over other data sources. First, the federal government has relatively consistent processes for collecting, analyzing, and reporting information across geographic areas and over time. Second, those processes are transparent, well documented, and critiqued by leading national experts. Third, due to the federal government's authority to collect data and its thorough follow-up, response rates are high and the information provided is relatively complete. However, since the federal government collects some data by surveying local and state agencies, differences in definitions and coding procedures at the local and state level can reduce the comparability of the data.

This chapter briefly describes the ways the federal government collects data. State comparisons and rankings then follow.

#### Federal Data Sources

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The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting education data. The Census Bureau operates as one of its data collection agents. NCES also works with other federal agencies, such as the Bureau of Justice Statistics.

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data on education in the United States as well as monitoring and reporting on education in other nations (Public Law 103-382, 20 U.S.C 9003; U.S. Dept. of Ed. Natl. Ctr. *Overview of Public*). NCES is a branch of the Institute of Education Sciences within the U.S. Department of Education.

NCES often collaborates with other federal agencies, such as the Census Bureau and the Bureau of Justice Statistics. The U.S. Census Bureau operates as a data collection agent for NCES, using standardized forms, definitions, and instructions designed by NCES to enhance the comparability of information among states. For example, NCES commissions the U.S. Census Bureau to administer the School District Finance Survey (form F-33) at the time of its Annual Survey of Local Governments.

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The Common Core of Data is a database, updated annually, containing fiscal and nonfiscal data on all public elementary and secondary schools.

The Common Core of Data (CCD) is the Department of Education's primary database on all public elementary and secondary schools, districts, students, and staff. Fiscal and nonfiscal data are comparable across all states and updated with five annual surveys.<sup>3</sup> The database includes such measures as pupil-teacher ratios, expenditures per pupil, student ethnicity, graduation rates, and counts of students receiving special education or free lunch. Data collection for the CCD began with the 1981-1982 school year and was most recently reauthorized by the Education Sciences Reform Act of 2002 (PL 107-279 20 U.S.C 9543; U.S. Dept. of Ed. Natl. Ctr. *Common Core*).

Due to their authoritative positions and rigorous follow-up processes, NCES and the Census Bureau attain higher response rates than most surveys. Nevertheless, not all states collect and report all the data required. If information is missing for a relatively small number of schools or districts, NCES estimates those data. NCES also adjusts some values to improve comparability across states (U.S. Dept. of Ed. Natl. Ctr. *Overview of Public*). For this reason, data reported in NCES publications will not always match states' reports.

### **Information About Students and Their Families and Communities**

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NCES surveys provide counts of graduates and completers; students by grade and racial and ethnic group; and the numbers receiving special education, migrant, or English language learner services.

Information about students and their families and communities is available from several sources. The Public Elementary/Secondary School Universe Survey collects information on the number of students by grade and racial and ethnic group as well as by the number receiving special education, migrant or English language learner services. The annual report using these data is the *Overview of Public Elementary and Secondary Schools and Districts*. The State Aggregate Nonfiscal Survey collects state-level information including the number of students by grade level and high school graduates and completers in the previous year (U.S. Dept. of Ed. Natl. Ctr. *Common Core*).

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A wide array of information about the population and housing within school districts is available from the Census Bureau.

A wide array of information about the population and housing is available from the Census Bureau. NCES funds a special

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<sup>3</sup> Nonfiscal data are collected by the State Nonfiscal Survey of Public Elementary/Secondary Education, the Local Education Agency Universe Survey, and the Public Elementary/Secondary School Universe Survey. Fiscal data are collected by the School District Finance Survey (F-33) and the National Public Education Financial Survey (U.S. Dept. of Ed. National Center. *Overview* 31).

tabulation of Census Bureau information by school district (U.S. Dept. of Ed. Natl. Ctr. "Census 2000").

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The Centers for Disease Control and Prevention provide data on child health and deaths, as well as the rate of births to teen mothers. The Bureau of Labor Statistics and of Economic Analysis provide general economic information.

The Centers for Disease Control and Prevention, a division of the National Center for Health Statistics, provides information on children and teens with respect to death rates, health status, health insurance coverage, school days lost due to illness, and births to teenage mothers. The Bureau of Economic Analysis provides information on personal income estimates, the gross domestic product, and other indicators of economic health. The Bureau of Labor Statistics provides such information as unemployment rates and the Consumer Price Index.

### **Information About Teachers and Other Staff**

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Two NCES surveys collect information about teachers and other staff. The teacher salaries that NCES reports are estimates it obtains from the National Education Association.

The Public Elementary/Secondary School Universe Survey collects the numbers of classroom teachers for all public elementary and secondary schools in operation during a school year. Breakouts of full-time equivalent staff by major employment categories are available from the State Aggregate Nonfiscal Survey. Teacher salaries are available from FY 1970 to the present. NCES estimated teacher salaries using its own statistical model from FY 1971 through FY 2003 but uses National Education Association estimates for years after FY 2003 (U.S. Dept. of Ed. Natl. Ctr. *Projections* 80 and *Digest* 719).

### **Information About Districts and Schools**

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NCES conducts annual surveys to keep up-to-date listings of districts and schools by location and type.

The Public Elementary/Secondary School Universe Survey helps NCES keep a current listing of schools by location and type. The Local Education Agency Universe Survey collects similar information about districts and other types of local education agencies.

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NCES and the Bureau of Justice Statistics collaborate to provide crime and safety information, based on a number of sources including surveys of students, teachers, principals, and the general population.

Crime and safety information is collected, analyzed, and reported by NCES in collaboration with the Bureau of Justice Statistics. Data are drawn from several federally funded data collections, including surveys of students, teachers, principals, and the general population regarding incidents in schools and on the way to and from school (U.S. Dept. of Ed. Natl. Ctr. *Indicators of School Crime*).

## Information About School Finance

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NCES obtains fiscal data through the National Public Education Financial Survey and the School District Finance Survey.

The National Public Education Financial Survey (NPEFS) collects detailed fiscal data by school district including revenues by source (local, state, and federal) and expenditures by function (instruction, instructional support services, and noninstruction) and by subfunctions such as administration and student transportation. Title I funds for disadvantaged students and other federal grants to school districts are based on data collected in this survey (U.S. Dept. of Ed. Natl. Ctr. *Common Core*; Commonwealth. Legislative).

The U.S. Census Bureau, the data collection agent for NCES, supplements its Annual Survey of Local Governments with the School District Finance Survey (F-33). The information collected is similar to that collected in the NPEFS, but it is aggregated to the state level (U.S. Dept. of Ed. Natl. Ctr. *Common Core*; Commonwealth. Legislative).

## Comparability of Salaries and Financial Data

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Geographic cost variations make it difficult to compare some data across states. Researchers have been developing adjustment approaches to improve comparability, but there is still no definitive approach.

A major obstacle to comparing salaries and financial data across states is the substantial geographic variation in the costs of goods and services. Researchers have been striving to develop geographic cost adjustments for at least two decades (Taylor and Fowler iii). Considerable progress has been made, much of it published by NCES, but there is still no definitive approach to cost adjustments.

## NCES Comparable Wage Index

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After evaluating several ways to adjust financial data for geographic cost differences, NCES published a Comparable Wage Index (CWI) based on data from the Census Bureau and the Bureau of Labor Statistics.

After weighing the advantages and disadvantages of various cost adjustment approaches, NCES has published and distributed an approach called a Comparable Wage Index (CWI).<sup>4</sup> Since wages are strongly correlated with the cost of living, CWI is considered a cost-of-living adjustment. CWI was used to adjust data in two sections of this chapter.

CWI uses, as its baseline, Census data on the 1999 average annual wages and salaries for noneducators with college degrees. Excluding educators is a precaution to ensure that the index is independent of any possible influence by the education system. Using annual wage and salary updates from the Bureau of Labor Statistics, CWI for each year is calculated by dividing each state's

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<sup>4</sup> Although NCES has made CWI available, it still does not adjust financial data in its Common Core of Data or in periodic NCES publications.

average in that year by the national average in 1999. A CWI greater than 1 indicates that an area’s salaries and cost of living are above the 1999 national average, while a CWI less than 1 indicates below-average salaries and cost of living.

As shown in Table 2.1, the 2004 national CWI was 1.228, indicating that, on average, wages and salaries for the nation’s college-educated noneducators grew by 22.8 percent between 1999 and 2004. Table 2.1 ranks states by their 2004 CWIs and again by the difference between the lowest and highest labor markets within each state. Kentucky labor markets include clusters of counties in and around Owensboro, Lexington, and Louisville; Kentucky counties near Evansville and Clarksville, Indiana; and the Kentucky portion of greater Cincinnati. In more sparsely populated areas, labor markets correspond approximately to Kentucky’s area development districts.

The NCES CWI suggests that Kentucky’s cost of living is below the national average, except in its northernmost counties that form part of greater Cincinnati. The lowest CWI is in the Kentucky River Area Development District.

Table 2.1 shows that Kentucky has a relatively low cost of living, as indicated by an average CWI that is below the national average. This ranks Kentucky 34<sup>th</sup>. However, labor costs vary more within Kentucky than they do within many other states; Kentucky ranks 15<sup>th</sup> in terms of the difference between its lowest and highest labor markets. The lowest CWI (0.890) is in the Kentucky River Area Development District (Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, and Wolfe Counties). The highest (1.253) is in counties closest to Cincinnati—Boone, Kenton, Campbell, Gallatin, Grant, Pendleton, and Bracken. These counties comprise the only Kentucky labor market in which wages exceed the national average.

**Table 2.1**  
**NCES Comparable Wage Index for Adjusting Salary and Financial Data**  
**Average and Range Between the Lowest and Highest Labor Markets in the State: 2004**

Rank	State	Average CWI for All Labor Markets in State	Range of CWI Across All Labor Markets in State			
			State	Range	Lowest	Highest
			U.S.	0.860	0.768	1.628
1	DC	1.482	CA	0.840	0.787	1.628
2	NJ	1.381	WV	0.529	0.954	1.482
3	NY	1.372	TX	0.529	0.829	1.358
4	CA	1.355	NY	0.499	1.011	1.510
5	CT	1.349	VA	0.469	1.013	1.482
6	MA	1.330	PA	0.466	0.947	1.413
7	MD	1.316	CT	0.464	1.079	1.543
8	VA	1.310	MD	0.435	1.048	1.482
9	WA	1.266	FL	0.428	0.768	1.195

Continued on next page.

Table 2.1 continued

Rank	State	Average CWI for All Labor Markets in State	Range of CWI Across All Labor Markets in State			
			State	Range	Lowest	Highest
10	IL	1.254	IL	0.426	0.914	1.339
11	DE	1.247	MA	0.414	0.972	1.386
12	RI	1.240	NM	0.398	0.873	1.272
13	NV	1.229	TN	0.392	0.870	1.262
	U.S.	1.228				
14	TX	1.225	AR	0.382	0.880	1.262
15	GA	1.217	KY	0.364	0.890	1.253
16	MI	1.195	MS	0.357	0.905	1.262
17	MN	1.192	NC	0.355	0.924	1.279
18	CO	1.186	CO	0.354	0.899	1.253
19	OH	1.179	MO	0.342	0.860	1.202
20	NC	1.171	WI	0.329	0.995	1.324
21	HI	1.166	NJ	0.326	1.184	1.510
22	PA	1.166	MN	0.324	0.956	1.280
23	WI	1.166	IN	0.320	0.933	1.253
24	AK	1.161	GA	0.316	0.966	1.282
25	NH	1.139	KS	0.306	0.880	1.186
26	TN	1.135	MI	0.293	0.992	1.285
27	AZ	1.124	OH	0.288	0.965	1.253
28	OR	1.123	WA	0.287	1.046	1.333
29	UT	1.122	LA	0.280	0.897	1.177
30	FL	1.121	OR	0.269	0.940	1.209
31	SC	1.108	AZ	0.256	0.921	1.177
32	MO	1.107	IA	0.255	0.890	1.146
33	IN	1.091	NE	0.255	0.885	1.140
34	KY	1.089	SC	0.235	1.044	1.279
35	NM	1.084	DE	0.225	1.061	1.286
36	AL	1.080	ME	0.216	0.896	1.112
37	LA	1.073	ID	0.212	0.831	1.043
38	KS	1.050	OK	0.209	0.890	1.098
39	WV	1.045	AL	0.208	0.945	1.153
40	OK	1.039	NH	0.190	1.027	1.217
41	VT	1.038	UT	0.185	0.976	1.161
42	NE	1.032	SD	0.167	0.853	1.020
43	ME	1.027	NV	0.157	1.109	1.266
44	IA	1.026	MT	0.138	0.859	0.997
45	MS	1.019	ND	0.111	0.935	1.046
46	AR	1.011	WY	0.109	0.948	1.057
47	ID	0.992	AK	0.108	1.107	1.215
48	WY	0.991	VT	0.084	0.998	1.081
49	ND	0.983	RI	0.000	1.235	1.235
50	SD	0.937	HI	0.000	1.166	1.166
51	MT	0.911	DC	0.000	1.482	1.482

Source: U.S. Dept. of Ed. Natl. Ctr. "NCES Comparable."

CWI is used in this chapter to adjust teacher salaries and school finance data, to improve their comparability across states. This is done by dividing each state's data by its CWI and then multiplying by the national CWI (Taylor and Glander 6). Adjusted data are presented side by side with the unadjusted data.

### **Overview of Rankings in This Chapter**

The remainder of this chapter presents rankings of the states by public school information, organized by major categories. The categories are students and their families and communities; teachers and other staff; schools and districts; and school finance.

Throughout this report, states that have the same value are tied for the same rank. In tables that report only one indicator, ties are indicated by grouping the states next to the rank they share. However, in tables that have more than one indicator, ties are indicated with asterisks. A note at the end of those tables explains that a state marked by an asterisk ties for the same rank as that of the state above it.

## Rankings

### Students and Their Families and Communities

#### Enrollment

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Birth rates and migration have the most impact on enrollment trends. Birth rate fluctuations impact enrollment for generations. After World War, a baby boom swelled enrollments dramatically. This was followed a generation later by another increase when baby boomers' children enrolled, and another increase is expected as their grandchildren enroll.

Public school enrollment trends reflect a wide variety of social and economic factors. However, no factor has more impact than birth rates and migration (people moving into and out of areas). Fluctuations in birth rates impact enrollment for generations. For example, after a drop in birth rates during the Great Depression, U.S. birth rates rose dramatically during the two decades of prosperity that followed World War II and then dropped again. This post-war baby boom, which strained the capacity of the education system, had another impact—often called an echo—when baby boomers' children reached school age. Such impact is expected to continue with another echo as their grandchildren enter school (Bloom).

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Between 1997 and 2003, Kentucky's public P-12 enrollment declined slightly. However, it is expected to grow at least through 2015.

Table 2.2 shows changes in total preschool through grade 12 enrollment observed from 1997 to 2003 and projected from 2003 to 2009 and from 2009 to 2015. Between 1997 and 2003, Kentucky's enrollment declined by 0.8 percent. This downward trend is expected to turn around, with enrollment growing by 1 percent between 2003 and 2009 and 1.6 percent between 2009 and 2015. Despite this growth, Kentucky's rank is expected to be only a little higher in 2015 than it was in 2003 because many states' enrollments are expected to grow even faster. The growth rates place Kentucky 36<sup>th</sup> for 1997-2003, 18<sup>th</sup> for 2003-2009, and 33<sup>rd</sup> for 2009-2015.

**Table 2.2**  
**Actual and Projected Percentage Changes in P-12 Enrollment**  
**in Public Schools: Fall 1997-Fall 2015**

Rank	Actual 1997-2003		Projected 2003-2009		Projected 2009-2015	
	State	%	State	%	State	%
1	NV	29.9	NV	18.4	NV	14.6
2	AZ	24.3	AZ	15.1	AZ	14.6 *
3	FL	12.8	TX	9.3	TX	12.2
4	TX	11.3	GA	8.4	ID	10.1
5	GA	10.7	UT	8.1	FL	10.0
6	CA	10.5	ID	7.1	GA	9.7
7	NJ	10.4	FL	6.2	HI	9.4
8	CO	10.3	NC	6.1	UT	8.7
9	NC	10.0	CO	5.2	NC	8.1
10	CT	7.9	DE	5.0	AK	7.5
11	VA	7.3	VA	3.9	CO	7.1
12	SC	6.1	TN	3.0	VA	5.8
	U.S.	5.2				
13	IL	5.1	AR	2.3	DE	5.7
14	DE	5.1 *	IN	1.8	MD	5.2
15	TN	4.9	SC	1.8 *	TN	4.9
16	MD	4.6	NJ	1.6	MN	4.8
17	RI	3.9	HI	1.1	OR	4.8 *
			U.S.	1.5		
18	MA	3.3	KY	1.0	AR	4.1
					U.S.	4.0
19	MI	3.2	CA	0.6	MT	3.9
20	ID	3.2 *	MS	0.4	NE	3.7
21	WA	3.0	NE	0.3	OK	3.4
22	NH	2.9	MD	0.1	SC	3.0
23	UT	2.7	IL	0.0	SD	2.6
24	IN	2.5	MO	-0.1	NM	2.5
25	OR	1.8	IA	-0.3	MO	2.4
26	AK	1.4	AL	-0.4	WA	2.4 *
27	DC	1.2	OK	-0.7	WY	2.4 *
28	KS	0.4	LA	-0.8	KS	2.3
29	OK	0.4 *	OR	-1.5	WI	2.3 *
30	PA	0.3	MN	-1.9	CA	2.3 *
31	NY	0.1	KS	-2.2	NH	1.8
32	OH	-0.1	WA	-2.2 *	LA	1.8 *
33	WI	-0.2	AK	-2.5	KY	1.6
34	AR	-0.4	WI	-2.6	IA	1.5
35	MO	-0.5	WV	-2.6 *	MS	0.8
36	KY	-0.8	OH	-2.7	IN	0.6

Continued on next page.

**Table 2.2 continued**

Rank	Actual 1997-2003		Projected 2003-2009		Projected 2009-2015	
	State	%	State	%	State	%
37	MN	-1.3	NM	-2.7 *	NJ	0.5
38	MS	-2.2	CT	-2.8	IL	0.3
39	NE	-2.4	MI	-2.9	AL	-0.2
40	AL	-2.4 *	MA	-3.0	ME	-0.3
41	NM	-2.6	RI	-3.8	OH	-1.0
42	HI	-3.3	SD	-3.8 *	MA	-1.1
43	IA	-4.0	PA	-4.1	MI	-1.1 *
44	ME	-4.9	MT	-4.9	WV	-1.2
45	LA	-6.3	NY	-5.2	RI	-1.3
46	VT	-6.5	NH	-5.3	DC	-1.3 *
47	WV	-6.7	ME	-6.0	PA	-1.7
48	MT	-8.6	WY	-6.1	VT	-2.1
49	WY	-9.9	DC	-8.8	CT	-2.6
50	SD	-11.9	ND	-10.2	ND	-2.7
51	ND	-13.8	VT	-10.9	NY	-2.9

Note: \*State ties for the same rank as the state above it. For example, from 1997 to 2003, enrollment grew by 5.1 percent in both Delaware and Illinois, so both states are ranked 13<sup>th</sup>; Tennessee, the next state down is ranked 15<sup>th</sup>. NCES prepared its table of projections in November 2005.

Source: U.S. Dept. of Ed. Natl. Ctr. *Projections* 45.

**Caveats and Limitations.** Enrollment projections are heavily dependent on underlying assumptions, such as expected birth rates, death rates, movements of the population into and out of the state, the rate at which students progress from grade to grade, and the percent who stay in school through grade 12 (U.S. Dept. of Ed. Natl. Ctr. *Projections* 99). It should be noted that NCES prepared its table of projections in November 2005, before the long-term impact of Hurricanes Katrina and Rita on Gulf Coast states was known.

### Racial and Ethnic Composition

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Compared to other states, Kentucky has relatively small minority populations.

Compared to other states, Kentucky has relatively small minority populations. Kentucky is 7<sup>th</sup> in terms of the percent of students who are non-Hispanic whites, as shown in Table 2.3 below.

**Table 2.3**  
**Racial and Ethnic Composition of Students: FY 2005**

Rank	Amer. Indian/ Alaska Native		Asian/Pacific Islander		Hispanic		Black Non- Hispanic		White Non- Hispanic	
	State	%	State	%	State	%	State	%	State	%
1	AK	26.3	HI	72.5	NM	53.3	DC	84.5	VT	95.8
2	OK	18.7	CA	11.5	CA	47.7	MS	50.8	ME	95.5
3	MT	11.3	WA	8.0	TX	44.7	LA	47.7	WV	93.9
4	NM	11.1	NJ	7.2	AZ	38.2	SC	40.8	NH	93.8
5	SD	10.9	NY	6.7	CO	26.2	GA	38.9	IA	87.4
6	ND	8.3	AK	6.7 *	FL	23.0	MD	38.1	ND	87.2
7	AZ	6.2	MN	5.5	NY	19.8	AL	36.1	KY	86.6
					U.S.	19.1				
8	WY	3.4	MD	5.0	IL	18.4	DE	32.3	WY	85.6
9	WA	2.7	VA	4.9	NJ	17.7	NC	31.6	SD	84.6
10	OR	2.3	MA	4.8	RI	16.8	VA	27.1	MT	84.5
11	MN	2.1	OR	4.6	CT	15.0	TN	25.1	ID	83.5
			U.S.	4.5						
12	NE	1.6	IL	3.7	OR	14.5	FL	24.1	UT	82.7
13	ID	1.6 *	WI	3.4	WA	12.9	AR	23.0	IN	81.0
14	UT	1.6 *	CT	3.4 *	ID	12.4	IL	20.7	MN	79.3
15	NC	1.5	RI	3.2	MA	11.8	NY	19.9	OH	79.1
16	WI	1.5 *	CO	3.2 *	KS	11.6	MI	19.9 *	NE	78.5
17	KS	1.4	TX	3.0	UT	11.6 *	MO	17.9	WI	78.3
18	CO	1.2	UT	3.0 *	NE	10.8	NJ	17.7	MO	77.3
19	MI	1.0	DE	2.7	DC	9.5	OH	17.1	KS	75.9
	U.S.	1.2					U.S.	17.3		
20	CA	0.8	GA	2.7 *	WY	8.6	PA	16.0	PA	75.5
21	AL	0.8 *	PA	2.3	DE	8.5	TX	14.2	OR	75.4
22	LA	0.7	KS	2.3 *	OK	8.2	CT	13.8	MA	74.2
23	AR	0.6	AZ	2.3 *	GA	7.9	IN	12.4	MI	72.7
24	RI	0.6 *	MI	2.2	NC	7.5	OK	10.8	RI	70.9
25	IA	0.6 *	FL	2.1	VA	7.1	WI	10.5	WA	70.7
26	HI	0.6 *	NC	2.0	MD	7.0	KY	10.5 *	TN	70.0
27	ME	0.5	IA	1.9	WI	6.3	MA	8.9	AR	69.2
28	NY	0.5 *	NH	1.8	PA	6.0	KS	8.7	CT	67.5
29	VT	0.5 *	NE	1.7	AR	6.0 *	RI	8.6	CO	63.5
30	MD	0.4	OK	1.6	IA	5.4	MN	8.2	OK	60.6
31	MO	0.4 *	ID	1.5	IN	5.2	CA	8.1	VA	60.6 *
32	CT	0.4 *	VT	1.5 *	MN	5.0	NE	7.4	AL	59.7
33	MA	0.3	MO	1.5 *	HI	4.5	CO	5.9	AK	58.3
									U.S.	57.9
34	TX	0.3 *	DC	1.4	MI	4.2	WA	5.7	NC	57.4
35	VA	0.3 *	TN	1.4 *	AK	4.1	AZ	5.0	NJ	57.1
36	FL	0.3 *	LA	1.4 *	SC	3.6	IA	4.8	IL	57.0
37	DE	0.3 *	OH	1.4 *	TN	3.3	WV	4.8 *	DE	56.2

Continued on next page.

Table 2.3 continued

Rank	Amer. Indian/ Alaska Native		Asian/Pacific Islander		Hispanic		Black Non- Hispanic		White Non- Hispanic	
	State	%	State	%	State	%	State	%	State	%
38	SC	0.3 *	ME	1.3	MO	2.9	AK	4.6	SC	54.0
39	NH	0.3 *	AR	1.3 *	NH	2.6	OR	3.3	NY	53.1
40	IN	0.3 *	SC	1.2	AL	2.4	NM	2.5	FL	50.5
41	NJ	0.2	NM	1.2 *	ND	2.4 *	HI	2.4	GA	50.5
42	TN	0.2 *	IN	1.1	MT	2.3	ME	1.9	MD	49.5 *
43	KY	0.2 *	MT	1.1 *	OH	2.3 *	SD	1.6	AZ	48.3
44	IL	0.2 *	WY	1.0	LA	1.9	NH	1.6 *	LA	48.3
45	MS	0.2 *	SD	1.0 *	SD	1.9 *	WY	1.4	MS	47.0 *
46	GA	0.2 *	AL	1.0 *	KY	1.8	VT	1.4 *	TX	37.7
47	OH	0.1	ND	0.9	MS	1.3	ND	1.2	CA	31.9
48	PA	0.1 *	KY	0.9 *	VT	0.9	UT	1.2 *	NM	31.9
49	WV	0.1 *	MS	0.8	ME	0.8	ID	1.0	HI	20.0 *
50	DC	0.0	WV	0.6	WV	0.6	MT	0.8	DC	4.6
51	NV	n.a.	NV	n.a.	NV	n.a.	NV	n.a.	NV	n.a.

Note: \*State ties for the same rank as the state above it; for example, 10.5 percent of students in both Wisconsin and Kentucky are African American, so both states are ranked 15<sup>th</sup>. Totals exclude about 2 percent of students for whom race and ethnicity were not reported.

Source: U.S. Dept. of Ed. Natl. Ctr. *Overview* 15-16.

### Family Type

The consequences of several decades of increases in single-parent families have been widely cited as obstacles to student achievement.

Increases in the number of single-parent families over the past few decades have been widely cited as an obstacle to providing students with the support, discipline, and stable environment they need to complete homework and aspire to complete their education. Table 2.4 ranks states with respect to the percent of children who live in married-couple families.

The source for Table 2.4 is the Census Bureau's American Community Survey. Although sample sizes for this survey are large, there is potential for random sampling error, so differences were tested for statistical significance. The column headed "Sig." indicates which differences between Kentucky and other states are statistically significant at the .05 level, which means there is a 95 percent probability that the difference reflects a real difference between states, not just random sampling error. States that are significantly better than Kentucky are indicated with the > symbol; those not significantly different are indicated with =; and those that are significantly worse are indicated with <. It should be noted that two states with the same percentage might not have the same statistical significance level because tests were conducted with unrounded percentages and because each time a state was compared to Kentucky, the statistical test took into account that

state's sample size and variation in family type. For example, in both New Jersey and Montana, 71.6 percent of children live in married-couple families, but New Jersey was found to be significantly better than Kentucky, while Montana was not. A larger sample size or less variation in the characteristic being measured can boost the certainty that a difference is not due to random sampling error.

Kentucky's 69 percent of children living in married-couple families is not significantly different from the national average or the level in 12<sup>th</sup>-ranked Montana.

With 69 percent of children living in married-couple families, Kentucky ranks 25<sup>th</sup>. However, Kentucky is not significantly different from 12<sup>th</sup>-ranked Montana.

**Table 2.4**  
**Percent of Children Living in Married-Couple Families: 2005**

Rank	State	%	Sig.
1	UT	82.9	>
2	ND	76.4	>
3	ID	76.2	>
4	NH	75.2	>
5	NE	75.0	>
6	MN	74.2	>
	WY	74.1	>
8	IA	73.6	>
9	HI	73.4	>
10	CO	72.8	>
11	KS	72.6	>
12	NJ	71.6	>
	MT	71.6	=
14	WA	71.1	=
15	WI	70.9	=
	SD	70.9	=
17	CT	70.6	=
18	OR	70.5	=

Rank	State	%	Sig.
19	VA	70.4	=
	MA	70.4	=
21	CA	70.1	=
	WV	70.1	=
23	IL	69.6	=
24	IN	69.4	=
25	KY	69.0	=
	AK	69.0	=
27	TX	68.7	=
28	VT	68.4	=
	NV	68.4	=
	U.S.	68.3	=
30	PA	68.3	=
	MI	68.3	=
32	ME	67.9	=
	OK	67.9	=
34	MD	67.8	=
35	OH	67.5	=

Rank	State	%	Sig.
36	RI	67.1	=
	MO	67.1	=
38	AZ	67.0	=
39	DE	65.7	=
	TN	65.7	<
41	NC	65.4	<
	AR	65.4	<
43	NY	65.2	<
44	GA	64.9	<
45	FL	64.0	<
46	AL	63.6	<
	NM	63.0	<
48	SC	62.5	<
49	LA	58.4	<
50	MS	54.1	<
51	DC	35.5	<

Notes: States with the same percentage have the same rank. Based on statistical tests of differences between Kentucky and each other state, > indicates state is significantly better, = indicates state is not significantly different, and < indicates state is significantly worse than Kentucky, at the .05 level. Tests took into account unrounded percentages and each state's sample size and variation; therefore, some states with the same percentages have different levels of statistical significance.

Source: Staff calculations using data from U.S. Census Bureau. *American Community Survey, 2005.*

## Family Income

Family income is strongly related to student achievement. With only 77.5 percent of families above the poverty level, Kentucky is below the national average and essentially ties with 39<sup>th</sup>-ranked North Carolina.

Since at least the 1960s, researchers have repeatedly found a relationship between family income and student achievement. Table 2.5 ranks states by the percent of children living in families that have incomes that are at or above the federal poverty line. A little over three-fourths (77.5 percent) of Kentucky's children live in families with incomes above poverty; this is below the national average and puts Kentucky in 41<sup>st</sup> place. When statistically significant differences are taken into account, Kentucky looks only a little better, being essentially tied with 39<sup>th</sup>-ranked North Carolina.

**Table 2.5**  
**Percent of Children Living in Families With Incomes**  
**At or Above Federal Poverty Line: 2005**

Rank	State	%	Sig.
1	NH	90.6	>
2	MD	89.2	>
3	UT	89.1	>
4	WY	88.9	>
5	CT	88.4	>
	MN	88.4	>
7	NJ	88.2	>
8	HI	87.3	>
9	VA	86.7	>
10	ND	86.5	>
11	MA	86.4	>
12	WI	86.1	>
13	IA	86.0	>
14	CO	85.8	>
15	AK	85.5	>
	DE	85.5	>
17	NE	85.2	>
18	NV	85.1	>

Rank	State	%	Sig.
19	KS	84.9	>
	WA	84.9	>
20	VT	84.6	>
22	IL	83.6	>
23	IN	83.3	>
	PA	83.3	>
25	ME	82.5	>
26	ID	82.3	>
27	FL	82.1	>
28	SD	81.8	>
	OR	81.6	>
	U.S.	81.5	>
30	MI	81.5	>
31	CA	81.4	>
	OH	81.4	>
33	MO	81.0	>
34	NY	80.6	>
35	RI	80.5	>

Rank	State	%	Sig.
36	MT	79.9	>
	GA	79.8	>
38	AZ	79.7	>
39	NC	78.7	=
40	TN	78.6	=
41	KY	77.5	
42	SC	77.3	=
43	OK	77.0	=
44	AL	75.2	<
45	AR	75.1	<
	TX	75.1	<
47	WV	74.4	<
48	NM	74.0	<
49	LA	71.6	<
50	MS	69.1	<
51	DC	67.8	<

Notes: States with the same percentage have the same rank. Based on statistical tests of differences between Kentucky and each other state, > indicates state is significantly better, = indicates state is not significantly different, and < indicates state is significantly worse than Kentucky, at the .05 level. Tests took into account unrounded percentages and each state's sample size and variation; therefore, some states with the same percentages have different levels of statistical significance.

Source: Staff calculations using data from U.S. Census Bureau. *American Community Survey, 2005*.

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Because poverty rates use one national set of income thresholds, they overestimate poverty in areas like Kentucky where the cost of living is relatively low.

**Caveats and Limitations.** Although poverty rates are widely used, they do not take into account geographic differences in the cost of living and do not include noncash benefits such as food stamps, subsidized housing, Medicaid, and free or reduced-price school lunches (U.S. Census. “Characteristics” 7). Because one national set of income thresholds is used for the entire country, poverty will be overstated to some extent in areas like Kentucky where the cost of living is lower. In addition, they provide little information about the distribution of income. For example, two states could have the same percentage above poverty, but one could have income extremes far above and below the poverty level, while the other could have incomes concentrated just above and below the poverty level.

### Eligibility and Participation in Selected Programs

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Due to Kentucky’s poverty rate, relatively high proportions of students qualify for federal lunch subsidies and attend schools that are eligible for Title I funds. Kentucky ranks 15<sup>th</sup> in terms of the percent of children eligible for free or reduced-price lunches.

Table 2.6 shows the percent of students who are eligible for and/or participate in selected programs. The first three sets of rankings reflect Kentucky’s relatively high rates of children living in poverty. Through the National School Lunch Program, children from families with incomes at or below 130 percent of the poverty level are eligible for free meals, and those with incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals. With close to half (46.9 percent) of students eligible for subsidized lunches, Kentucky is well above the national average and ranks 15<sup>th</sup>.

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Title I, Part A funds can be used for targeted assistance to specific students. Alternatively, schools with at least 40 percent of students living in poverty are encouraged to create schoolwide programs. Kentucky ranks 14<sup>th</sup> in terms of the percent of students enrolled in schools eligible for Title I and 5<sup>th</sup> with respect to the percent of children in schools that have schoolwide programs.

Title I, the first section of the Elementary and Secondary Education Act, refers to federally funded programs aimed at America’s most disadvantaged students. Title I, Part A funds can be used for targeted assistance to specific students. However, schools with at least 40 percent of students living below the poverty level are encouraged to combine Title I, Part A funds with other federal, state, and local funds to operate a comprehensive schoolwide program that upgrades the entire educational program in the school (U.S. Dept. of Ed. Office of Elementary and Secondary Ed. *Notice*). With over 60 percent of students enrolled in Title I-eligible schools and over 50 percent in schools with schoolwide programs, Kentucky ranks 14<sup>th</sup> and 5<sup>th</sup>, respectively.

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In terms of the percent of students who have Individualized Education Programs, Kentucky is above the national average and ranks 11<sup>th</sup> out of the 46 states reporting.

An Individualized Education Program (IEP) is a written instructional plan for an individual student with a disability (U.S. Dept. of Ed. Natl. Ctr. *Overview* 39). The severity and nature of disabilities vary widely, including speech difficulties, attention deficit/hyperactivity disorder, and severe cognitive disabilities.

Kentucky is above the national average and ranks 11<sup>th</sup> out of 46 states reporting.

Kentucky has relatively few students who lack English proficiency, ranking 39<sup>th</sup> out of 45 states reporting.

An English language learner (ELL) is a student who comes from an environment in which a language other than English has had a significant impact on his or her level of English language proficiency (U.S. Dept. of Ed. Natl. Ctr. *Overview* 38). ELL students are concentrated primarily in southwestern and western states. As Table 2.6 shows, Kentucky has relatively few English language learners, ranking 39<sup>th</sup> out of 45 states reporting.

**Table 2.6**  
**Percentages of Students in Selected Programs: FY 2005**

Rank	Eligible for Free or Reduced-price Lunch		Enrolled in Title I-Eligible Schools		Enrolled in Title I Schoolwide Schools		Have IEP		ELL	
	State	%	State	%	State	%	State	%	State	%
1	DC	65.8	OR	99.9	DC	82.0	DC	19.6	CA	25.2
2	MS	64.3	DC	85.0	MS	65.1	NM	19.6 *	AZ	20.2
3	LA	61.6	MT	79.5	TX	59.8	AZ	18.8	NM	19.4
4	NM	58.1	MS	70.2	HI	59.4	RI	18.1	NV	18.0
5	OK	53.9	AR	67.4	KY	50.9	WV	17.9	AK	16.9
6	SC	52.2	ID	67.3	LA	46.6	TN	17.8	TX	15.7
7	AR	51.9	NY	65.2	OK	44.4	IN	17.1	OR	12.5
8	AL	51.6	TX	64.8	AR	40.4	ME	16.9	CO	12.0
9	WV	50.4	OK	64.3	NM	38.0	MA	16.6	HI	9.3
10	CA	49.0	ME	64.1	GA	37.6	NE	16.5	UT	9.3 *
11	AZ	48.0	HI	63.9	TN	37.3	KY	15.8	ID	9.0
12	GA	47.9	OH	62.3	SC	36.6	IL	15.4	FL	8.1
13	TX	47.7	PA	60.7	AZ	35.4	FL	15.2	OK	8.1 *
14	FL	47.4	KY	60.2	CA	35.1	IA	15.2 *	DC	8.0
15	KY	46.9	IL	57.4	FL	34.9	OK	15.1	MN	7.8
16	NC	45.1	CA	57.0	AL	34.6	WI	14.9	WA	7.6
17	OR	41.9	LA	56.1	WV	33.3	DE	14.8	MI	7.4
					U.S.	30.0				
18	HI	41.6	AZ	55.5	NC	29.5	NH	14.7	NE	7.4 *
19	MO	39.1	ND	54.3	NY	29.4	ND	14.6	KS	7.0
20	ID	38.6	MA	53.5	VA	28.0	PA	14.5	MT	7.0 *
21	KS	38.6 *	VT	52.7	MI	27.3	VA	14.5 *	WI	6.7
	U.S.	37.4								
22	IL	37.5	WA	52.0	DE	26.8	SC	14.3	RI	6.0
23	WA	36.1	NM	51.3	VT	26.3	LA	14.2	MA	5.9
			U.S.	49.6						
24	IN	35.8	IN	48.0	IL	25.9	OH	14.2 *	VA	5.7
25	DE	35.6	GA	45.9	MA	22.2	OR	14.2 *	IN	5.3
26	NE	34.8	TN	45.5	OR	21.6	MI	14.0	CT	5.2

Continued on next page.

**Table 2.6 continued**

Rank	Eligible for Free or Reduced-price Lunch		Enrolled in Title I-Eligible Schools		Enrolled in Title I Schoolwide Schools		Have IEP		ELL	
	State	%	State	%	State	%	State	%	State	%
27	MI	33.7	WY	44.6	OH	21.4	SD	14.0 *	NC	5.0
28	MT	33.7 *	MO	44.3	WA	20.8	KS	13.9	AR	4.9
29	RI	32.4	SD	44.0	NV	18.6	MS	13.9 *	ND	4.5
30	UT	32.4 *	WI	44.0 *	RI	18.4	NC	13.9 *	WY	4.5 *
							U.S.	13.7		
31	ME	32.3	AL	43.4	KS	18.1	MN	13.7	DE	4.3
32	MD	32.1	DE	43.4 *	MT	17.8	AK	13.5	SD	4.3 *
33	WY	32.0	CO	43.3	AK	17.6	MT	13.3	IA	4.2
34	CO	31.5	NH	42.9	PA	17.5	VT	13.2	GA	4.0
35	OH	31.3	CT	40.8	CO	17.3	MD	12.9	MD	3.0
36	IA	31.1	WV	40.8 *	MD	16.3	AL	12.7	VT	2.5
37	VA	31.1 *	SC	40.7	NE	15.9	UT	12.6	AL	2.2
38	SD	30.0	MN	39.9	MO	15.6	AR	12.4	OH	2.0
39	MN	29.5	RI	38.8	WY	15.1	HI	12.4 *	KY	1.9
40	ND	29.1	NC	38.2	SD	14.9	GA	12.3	LA	1.9 *
41	AK	28.6	IA	37.3	WI	14.8	WA	12.2	ME	1.9 *
42	PA	28.3	KS	36.8	UT	14.7	TX	11.8	SC	1.8
43	MA	27.7	AK	36.0	ID	12.5	CT	11.6	NH	1.5
44	VT	25.2	FL	35.9	CT	11.9	NV	11.3	MS	0.9
45	NY	18.2	NE	35.2	ND	10.3	ID	11.2	WV	0.8
46	NH	16.5	VA	28.0	MN	8.4	CA	10.8	IL	—
47	NJ	—	MI	27.3	IA	8.0	CO	10.8 *	MO	—
48	TN	—	MD	20.4	IN	7.8	MO	—	NJ	—
49	CT	‡	UT	18.9	ME	4.4	NJ	—	NY	—
50	NV	‡	NV	18.7	NH	4.3	NY	—	PA	—
51	WI	‡	NJ	—	NJ	—	WY	‡	TN	—
									U.S.	‡

Notes: An IEP (Individualized Education Plan) is a written instructional plan for an individual student with disabilities. ELL (English Language Learner) services are for students from environments in which a language other than English has had a significant impact on their English language proficiency.

\*State ties for the same rank as the state above it; for example, since the percent of students receiving ELL services is the same in Kentucky, Louisiana, and Maine, all three states tie for the rank of 39<sup>th</sup>.

— indicates data not available.

‡ indicates reporting standards were not met because data were missing for more than 20 percent of schools or districts within a state or for more than 15 percent of all schools or districts nationally.

Sources: Commonwealth. Dept. of Ed. *Federal Accountability 1* for the percent of Kentucky students eligible for free or reduced-price lunch; U.S. Dept. of Ed. Natl. Ctr. *Overview 13-16* for all other information.

### Graduation Rates

Kentucky ranks 33<sup>rd</sup> with respect to the estimated percent of high school freshmen who go on to graduate from high school in 4 years.

Despite the fact that the graduation rate is a fundamental education indicator, states vary widely in how they define and measure it. In order to calculate precise graduation rates, states need longitudinal data collection systems that accurately track individual students

over time throughout the high school years, even if they transfer in and out of a school, district, or state (U.S. Dept. of Ed. Natl. Ctr. *User's Guide* iii). Since states are just starting to develop longitudinal data systems, only estimates of graduation rates are available. The averaged freshman graduation rate (AFGR) estimates the percentage of an entering high school freshman class that graduates in 4 years. The AFGR for FY 2004 equals the total number of diploma recipients in FY 2004 divided by the average membership of grade 8 in FY 2000, grade 9 in FY 2001, and grade 10 in FY 2002. As Table 2.7 shows, Kentucky's AFGR is slightly below the national average, and Kentucky ranks 33<sup>rd</sup>.

**Table 2.7**  
**Four-year High School Graduation Rate (Averaged Freshman Graduation Rate): FY 2004**

Rank	State	%	Rank	State	%	Rank	State	%
1	NE	87.6	19	CO	78.7	36	MI	72.5
2	NJ	86.3		NH	78.7	37	NC	71.4
3	ND	86.1	21	KS	77.9	38	LA	69.4
4	IA	85.8	22	ME	77.6	39	DC	68.2
5	VT	85.4	23	OK	77.0	40	AK	67.2
6	MN	84.7	24	WV	76.9	41	NM	67.0
7	SD	83.7	25	AR	76.8	42	AZ	66.8
8	UT	83.0	26	TX	76.7	43	FL	66.4
9	PA	82.2	27	WY	76.0	44	TN	66.1
10	ID	81.5	28	RI	75.9	45	AL	65.0
11	OH	81.3		U.S.	75.0	46	MS	62.7
12	CT	80.7	29	WA	74.6	47	GA	61.2
13	MO	80.4	30	OR	74.2	48	SC	60.6
	MT	80.4	31	CA	73.9	49	NV	57.4
15	IL	80.3	32	IN	73.5		NY	n.a.
16	MD	79.5	33	KY	73.0		WI	n.a.
17	MA	79.3	34	DE	72.9			
	VA	79.3	35	HI	72.6			

Notes: States with the same percentage are assigned the same rank, and n.a. denotes data not available. The averaged freshman graduation rate is an estimate of the percentage of an entering freshman class graduating in 4 years. For FY 2004, it equals the total number of diploma recipients in FY 2004 divided by the average membership of grade 8 in FY 2000, grade 9 in FY 2001, and grade 10 in FY2002. This rate includes individuals who receive diplomas and certificates of attendance but excludes the General Educational Development test passers.

Source: U.S. Dept. of Ed. Natl. Ctr. *Overview* 19.

**Caveats and Limitations.** Like all proxy measures, AFGR provides only an approximate estimate of the percent of students who graduate on time after 4 years of high school, and some states currently lack the data for this proxy measure.

## Teachers and Other Staff

### Student-Teacher Ratio

The student-teacher ratio is considered an indicator of quality, since a lower ratio should give students more opportunities for personal attention. Nationally, the ratio has been decreasing, as enrollment declined and the number of teachers increased. In Kentucky, there are 16.3 students per teacher; this is slightly behind the national average of 15.8, and puts Kentucky in 38<sup>th</sup> place.

A low student-teacher ratio is widely considered an indicator of quality, as students have more opportunities for personal attention. In the United States, student-teacher ratios have decreased significantly from a high of 22.3 in 1970 to 15.8 in 2005, due to increasing numbers of teachers and declining enrollments (U.S. Dept. of Ed. Natl. Ctr. *Digest* Table 63). The student count for the student-teacher ratio includes all students enrolled in the fall of the school year, while the number of teachers is the full-time equivalent count. As shown in Table 2.8, the student-teacher ratio in FY 2005 was twice as high in last-ranked Utah as in first-ranked Vermont. Kentucky's 16.3 ratio is slightly behind the national average of 15.8. Kentucky ranks 38<sup>th</sup>.

**Table 2.8**  
**Student-Teacher Ratio: FY 2005**

Rank	State	Ratio
1	VT	11.3
2	ME	11.9
3	NJ	12.1
4	ND	12.5
5	WY	12.7
6	VA	12.9
7	NY	13.0
8	RI	13.2
9	MA	13.3
10	NH	13.5
	SD	13.5
12	NE	13.6
13	IA	13.8
	MO	13.8
15	WV	14.0
16	AL	14.2
	DC	14.2
	KS	14.2

Rank	State	Ratio
19	MT	14.3
	WI	14.3
21	LA	14.7
22	AR	14.8
	GA	14.8
24	CT	14.9
25	NM	15.0
26	NC	15.0
	SC	15.0
	TX	15.0
29	PA	15.1
30	DE	15.2
31	OH	15.6
	OK	15.6
33	MD	15.7
	TN	15.7
	U.S.	15.8

Rank	State	Ratio
35	MS	15.8
36	IL	16.0
37	MN	16.1
38	KY	16.3
39	HI	16.4
40	IN	16.9
41	CO	17.0
	FL	17.0
43	AK	17.1
44	MI	17.4
45	ID	17.9
46	NV	19.1
47	WA	19.2
48	OR	20.1
49	CA	21.1
50	AZ	21.3
51	UT	22.6

Notes: States with the same ratio are assigned the same rank. Student-teacher ratio uses student membership and full-time equivalent counts of teachers.

Source: U.S. Dept. of Ed., Natl. Ctr. *Overview* 17-18.

**Instructional Staff as a Percent of All Staff**

Kentucky ranks last in terms of the percent of staff dedicated to instruction.

Nationally, the number of nonteaching staff has been rising more rapidly than the number of teachers. As shown in Table 2.9, between 1998 and 2003, instructional staff (primarily teachers and aides) as a percent of all staff declined from 52.2 percent to 51.2 percent. Kentucky ranks last in terms of the percent of staff dedicated to instruction.

**Table 2.9**  
**Instructional Staff as a Percent of All Staff:**  
**Fall 1998 and Fall 2003**

Rank	Fall 1998		Fall 2003	
	State	%	State	%
1	AR	68.5	SC	72.9
2	RI	62.4	RI	59.9
3	HI	61.3	NV	59.4
4	OK	57.8	AL	57.7
5	NV	56.3	ID	55.9
6	ID	56.3	WI	55.7
7	SD	56.1	MT	55.3
8	WI	56.0	OK	55.0
9	VA	55.6	NY	54.8
10	MA	55.0	VA	54.4
11	DE	55.0	MD	53.8
12	UT	54.9	MA	53.6
13	CA	54.8	DC	53.5
14	AL	54.5	NJ	53.5 *
15	OH	54.4	ND	53.3
16	WV	54.3	UT	53.3 *
17	ND	54.0	CA	53.1
18	NJ	53.9	DE	53.1 *
19	TN	53.8	WV	52.7
20	MT	53.8 *	HI	52.7 *
21	MO	53.7	NC	52.3
22	SC	53.6	MO	51.8
23	MN	53.6 *	NE	51.6
24	MD	53.4	PA	51.4
25	NE	53.2	TN	51.3
			U.S.	51.2
26	WA	53.0	KS	51.1
27	PA	52.9	IA	51.1 *
28	DC	52.7	IL	50.3
29	KS	52.6	OH	50.2
30	NY	52.4	CO	50.2 *
	U.S.	52.2		
31	NC	52.0	MN	49.7
32	NH	52.0 *	CT	49.6

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**Table 2.9 continued**

Rank	Fall 1998		Fall 2003	
	State	%	State	%
33	IL	52.0	AZ	49.3
34	CO	51.8	OR	49.3 *
35	TX	51.3	ME	49.1
36	ME	50.8	LA	49.0
37	OR	50.5	NH	49.0 *
38	AK	50.4	FL	49.0 *
39	CT	50.1	SD	48.6
40	GA	49.9	TX	48.5
41	AZ	49.8	GA	48.5 *
42	IA	49.8 *	WA	48.3
43	LA	49.4	NM	48.1
44	VT	48.9	AR	47.7
45	WY	48.7	MS	47.7 *
46	NM	48.6	AK	47.2
47	FL	48.4	MI	47.1
48	MS	47.9	VT	46.8
49	IN	46.8	WY	46.5
50	KY	44.8	IN	45.9
51	MI	44.5	KY	43.0

\*State ties for the same rank as the state above it; for example, in 1998, Tennessee and Montana tied for a rank of 19<sup>th</sup> because instructional staff were 53.8 percent of all staff in both states.

Source: U.S. Dept. of Ed. Natl. Ctr. *Digest* 123.

### Teacher Salaries

In FY 2005, the average teacher salary in Kentucky was \$41,002, which was the 34<sup>th</sup> highest salary in the nation. Adjusting salaries for state differences in cost of living brings Kentucky up to a rank of 31<sup>st</sup>. Both the adjusted and unadjusted salaries are below the national average.

Comparing salaries across states can be misleading unless they are adjusted for geographic differences in the cost of living. States with high costs of living usually offer the highest salaries, but without adjusting, there is no way to know if the higher salaries are sufficient to offset the higher costs. Table 2.10 shows states ranked by unadjusted teacher salaries and then by salaries adjusted for geographic cost differences, using the NCES Comparable Wage Index discussed earlier in this chapter. The cost-adjusted salaries were calculated by dividing each state's average teacher salary by its CWI and then multiplying by the national CWI. When cost adjustments are made, some states' rankings change considerably while others do not. Going from unadjusted to adjusted salaries, the District of Columbia drops from 2<sup>nd</sup> to 22<sup>nd</sup> place. However, Kentucky changes only slightly, rising from 34<sup>th</sup> to 31<sup>st</sup> place. Both the adjusted and unadjusted salaries for Kentucky are below the national average.

**Table 2.10**  
**Average Teacher Salaries**  
**Based on National Education Association Estimates**  
**Unadjusted and Adjusted for Cost-of-Living Differences: FY 2005**

Rank	State	Unadjusted \$	State	Cost-adjusted \$
1	CT	58,688	MI	57,231
2	DC	58,456	OR	55,539
3	CA	57,876	PA	55,502
4	NJ	56,600	AK	55,449
5	NY	56,200	IL	54,476
6	MI	55,693	CT	53,424
7	IL	55,629	RI	52,956
8	MA	54,596	IN	52,734
9	RI	53,473	VT	52,687
10	PA	52,700	CA	52,451
11	AK	52,424	ID	52,143
12	MD	52,331	MT	51,877
13	DE	50,869	OH	50,716
14	OR	50,790	MA	50,409
15	OH	48,692	NJ	50,329
	U.S.	47,750		
16	MN	46,906	NY	50,301
17	IN	46,851	DE	50,094
18	GA	46,526	WY	50,052
19	WA	45,712	AR	49,187
20	VA	44,763	ME	48,953
21	VT	44,535	MD	48,832
22	HI	44,273	DC	48,437
23	CO	44,161	MN	48,323
			U.S.	47,750
24	NH	43,941	IA	48,291
25	WI	43,466	NH	47,374
26	NV	43,394	NE	46,950
27	NC	43,313	GA	46,947
28	AZ	42,905	AZ	46,875
29	SC	42,207	SC	46,778
30	ID	42,122	HI	46,627
31	TN	41,527	KY	46,235
32	FL	41,081	KS	45,834
33	TX	41,009	WI	45,777
34	KY	41,002	CO	45,725
35	ME	40,940	ND	45,533

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**Table 2.10 continued**

Rank	State	Unadjusted \$	State	Cost-adjusted \$
36	AR	40,495	NC	45,421
37	WY	40,392	WV	45,078
38	IA	40,347	FL	45,002
39	UT	39,965	TN	44,930
40	NE	39,456	SD	44,612
41	NM	39,328	NM	44,552
42	KS	39,190	LA	44,496
43	MO	38,971	WA	44,340
44	LA	38,880	AL	44,189
45	AL	38,863	MS	44,095
46	MT	38,485	OK	43,897
47	WV	38,360	UT	43,741
48	OK	37,141	NV	43,359
49	MS	36,590	MO	43,231
50	ND	36,449	VA	41,961
51	SD	34,040	TX	41,109

Notes: In January 2006, NCES prepared this table using estimates from the National Education Association (NEA). NEA has subsequently revised its estimates after verifying them with states. Therefore, the average salaries in this table do not match the salaries in the National Education Association section of Chapter 4 of this compendium.  
Sources: U.S. Dept. of Ed. Natl. Ctr. *Digest* 116; OEA staff calculated cost-adjusted salaries using the unadjusted salaries and the CWI from U.S. Dept. of Ed. Natl. Ctr. "NCES Comparable Wage."

**Caveats and Limitations.** As mentioned earlier, NCES has not generated its own data on average teacher salaries since FY 2003. The above salaries are estimates as of January 2006 from the National Education Association (NEA). After NCES published this information, NEA revised its estimates based on states' feedback. Therefore, the teacher salary estimates and rankings published by NEA in November 2006, which can be found in Chapter 4 of this report, are slightly different. This is a common occurrence; two sets of estimates or forecasts for the same year may differ depending on the date on which they were generated and the information that was available at the time.

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Kentucky has been increasing salaries faster than the national average. Kentucky ties with Ohio for 17<sup>th</sup> place in terms of the increase in salaries between FY 1990 and FY 2005.

Although Kentucky's FY 2005 teacher salaries were low compared to other states, they were better than in previous years. As Table 2.11 shows, Kentucky has been increasing salaries faster than the national average between FY 1990 and 2005. Kentucky ties with Ohio for 17<sup>th</sup> place.

**Table 2.11**  
**Percent Change in Average Teacher Salaries in**  
**Constant FY 2005 Dollars: FY 1990 to FY 2005**

Rank	State	%	Rank	State	%	Rank	State	%
1	AR	20.0	19	NC	2.9	36	RI	-1.8
2	ID	16.9	20	SC	2.7	37	AZ	-3.3
3	IL	12.4	21	NE	2.4	38	MN	-3.5
4	UT	11.8	22	TN	1.7	39	CT	-3.9
5	WV	11.2		VT	1.7	40	VA	-4.2
6	GA	10.0	24	MT	1.6	41	NY	-4.4
7	OR	9.1	25	DE	1.0	42	MD	-4.6
8	OK	6.6	26	CA	0.9	43	MO	-4.7
9	LA	6.0		ME	0.9	44	CO	-4.9
10	SD	5.9		U.S.	0.8		WY	-4.9
11	NM	5.2	28	DC	0.8	46	FL	-5.5
12	NJ	5.1	29	IN	0.4	47	NV	-6.0
13	ND	4.9		NH	0.4	48	HI	-8.5
14	PA	4.7	31	IA	-0.1	49	KS	-9.7
15	MA	4.2	32	MS	-0.2	50	WI	-9.8
16	AL	3.7	33	MI	-0.5	51	AK	-19.5
17	OH	3.3	34	WA	-0.6			
	KY	3.3	35	TX	-1.2			

Notes: States with the same percentage change are assigned the same rank; for example, Kentucky ties with Ohio for a rank of 17<sup>th</sup> because both had the same percent change.

Source: U.S. Dept. of Ed. Natl. Ctr. *Digest* 116.

## Districts and Schools

### Title I

Reflecting Kentucky's relatively high percentage of students living below the nationally defined poverty thresholds, Kentucky ranks 15<sup>th</sup> in terms of the percentage of schools eligible for Title I, Part A funds and 5<sup>th</sup> in terms of the percentage of schools that have enough students in poverty to establish schoolwide programs.

As mentioned earlier, Title I, Part A funds can be used for targeted assistance to specific students. However, schools with at least 40 percent of students living in poverty are encouraged to create a comprehensive schoolwide program that upgrades the entire educational program in the school (U.S. Dept. of Ed. Office). Reflecting Kentucky's relatively high percentage of students living below the nationally defined poverty thresholds, many of Kentucky's schools qualify for Title I funds. As Table 2.12 shows, Kentucky is 15<sup>th</sup> in terms of the percentage of all schools that are eligible for Title I funds and 5<sup>th</sup> in terms of the percentage of schools that have a concentration of poverty and choose to establish a schoolwide program.

**Table 2.12**  
**Title I-Eligible Schools and Title I Schoolwide Programs as a Percent of All Schools: FY 2005**

Rank	Title I-Eligible Schools as a Percent of All Schools		Title I Schoolwide Programs as a Percent of All Schools	
	State	%	State	%
1	OR	99.9	DC	77.1
2	MT	81.1	MS	71.3
3	DC	80.8	HI	61.8
4	ME	77.1	TX	61.0
5	MS	76.7	KY	56.9
6	ID	74.8	OK	53.7
7	AR	73.0	LA	51.8
8	OK	72.1	AR	47.1
9	NY	71.3	WV	47.1 *
10	OH	69.4	GA	46.1
11	HI	68.8	SC	46.0
12	ND	68.7	TN	43.6
13	TX	66.3	NM	43.5
14	PA	66.2	VA	41.9
15	KY	65.3	AL	40.9
16	LA	61.9	NC	39.5
17	NM	60.1	FL	38.5
18	AK	60.0	CA	32.8
19	VT	59.3	AZ	31.7
			U.S.	31.2
20	MA	58.2	DE	30.3

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Table 2.12 continued

Rank	Title I-Eligible Schools as a Percent of All Schools		Title I Schoolwide Programs as a Percent of All Schools	
	State	%	State	%
21	AZ	57.7	MI	29.2
22	CA	56.4	NY	27.8
23	IL	56.3	OR	27.1
24	GA	55.6	VT	26.3
25	WA	55.6 *	OH	25.9
26	IN	55.3	MA	25.4
27	WV	54.8	IL	23.9
	U.S.	54.7		
28	WY	54.0	AK	23.3
29	TN	53.8	WA	23.2
30	MO	52.8	MD	22.8
31	CO	52.0	NV	22.1
32	NH	52.0 *	CO	20.7
33	SC	50.4	UT	19.6
34	AL	50.1	RI	18.6
35	NC	50.1 *	MO	18.5
36	DE	49.0	MT	18.3
37	WI	48.8	SD	18.1
38	SD	48.2	KS	18.0
39	KS	45.8	PA	17.9
40	CT	45.4	WY	16.5
41	IA	44.9	NE	15.5
42	RI	44.0	ID	14.4
43	MN	43.0	WI	13.6
44	VA	41.9	CT	12.8
45	NE	40.3	ND	12.3
46	FL	39.6	MN	10.9
47	MI	29.2	IN	9.8
48	MD	28.0	IA	8.5
49	UT	24.8	ME	7.3
50	NV	22.3	NH	6.3
51	NJ	—	NJ	—

Notes: \*State ties for the same rank as the state above it; for example, West Virginia and Arkansas are both ranked 8<sup>th</sup> in terms of students enrolled in schools with schoolwide programs. Percent of all students is based on membership. Number of Title I eligible schools includes those with and without schoolwide Title I programs.

Source: Staff calculations using data from U.S. Dept. of Ed. Natl. Ctr. *Overview* 13-14.

### School Crime and Safety

NCES collaborates with the U.S. Bureau of Justice Statistics to produce a biennial report on crime and safety. The perspectives of students, teachers, principals, and the public are gathered from several federally funded collections including the National Crime Victimization Survey, Youth Risk Behavior Survey, School Survey on Crime and Safety, and School and Staffing Survey. In these surveys, students and teachers are asked to report incidents occurring at school and on the way to and from school (U.S. Dept. of Ed. Natl. Ctr. *Indicators of School Crime and Safety*).

A few states have a relatively high rate of students threatening teachers with injury; these incidents occur less frequently than they did a decade ago. In the most recent survey, 7.9 percent of Kentucky teachers reported threats, giving Kentucky a rank of 15<sup>th</sup>. However, it should be noted that differences among states are small, aside from a handful of states that have troubled schools in large cities.

**Teacher-reported Incidents.** As shown in Table 2.13, the past decade has seen a sizeable decline in the percentage of teachers who report threats of injury by students at school. This rate dropped by almost half in Kentucky, from 14 percent in FY 1994 school year to 7.9 percent a decade later. Consequently, Kentucky dropped from the 11<sup>th</sup> highest in the nation to the 15<sup>th</sup> highest. However, it should be noted that differences among states are small, aside from a handful of states that have troubled schools in large urban areas.

**Table 2.13**  
**Percentage of Public School Teachers Threatened With Injury by a Student at School in Past 12 Months: FY 1994 and FY 2004**

Rank	FY 1994		FY 2004		Percent Difference FY 1994 to FY 2004	
	State	%	State	%	State	%
1	DC	24.4	DC	18.0	CO	-71.0
2	FL	20.1	MD	13.5	WI	-65.9
3	MD	19.9	FL	11.2	KS	-65.7
4	DE	18.7	NY	10.5	RI	-65.7 *
5	NC	17.1	LA	9.9	AR	-65.3
6	LA	17.0	PA	9.5	VT	-60.5
7	NY	16.2	MI	9.3	OH	-59.3
8	SC	15.3	HI	9.1	MS	-58.9
9	OH	15.2	AK	8.9	DE	-58.8
10	VA	14.9	NC	8.7	WY	-57.8
11	GA	14.0	SC	8.6	VA	-56.3
12	KY	14.0 *	MO	8.3	AL	-54.3
13	AR	13.8	MN	8.2	GA	-54.2
14	IN	13.8 *	IL	8.0	UT	-53.5
15	WI	13.8 *	KY	7.9	OR	-52.0
16	AK	13.7	NM	7.8	NC	-49.2
17	MS	13.4	TX	7.7	IA	-47.9
18	RI	13.4 *	DE	7.7 *	NH	-47.9 *

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Table 2.13 continued

Rank	FY 1994		FY 2004		Percent Difference FY 1994 to FY 2004	
	State	%	State	%	State	%
			U.S.	7.5		
19	AL	13.3	NE	7.5	IN	-47.8
20	NV	13.2	NV	7.3	TN	-47.2
21	CO	13.1	IN	7.2	AZ	-46.9
22	AZ	13.0	WV	7.2 *	WA	-46.7
	U.S.	12.8				
23	NM	12.8	CT	6.9	NJ	-45.4
24	WA	12.8 *	AZ	6.9 *	OK	-44.7
25	TX	12.7	WA	6.8	ID	-44.6
26	MO	12.6	TN	6.6	NV	-44.6 *
27	TN	12.5	VA	6.5	FL	-44.4
28	VT	12.4	GA	6.4	KY	-43.6
29	CT	11.9	MA	6.4 *	SC	-43.6 *
30	OR	11.5	OH	6.2	ME	-42.0
31	WV	11.4	CA	6.1	CT	-41.9
32	UT	11.2	OK	6.1 *	LA	-41.7
					U.S.	-41.4
33	NH	11.1	MT	6.1 *	MA	-40.9
34	OK	11.0	AL	6.1 *	TX	-39.4
35	PA	11.0 *	NH	5.8	NM	-38.9
36	IL	10.8	ND	5.6	WV	-36.7
37	KS	10.8 *	MS	5.5	AK	-35.2
38	MA	10.8 *	OR	5.5 *	NY	-35.2 *
39	MI	10.8 *	ID	5.4	MO	-33.9
40	NE	10.4	SD	5.3	MD	-32.0
41	HI	9.9	ME	5.2	NE	-28.1
42	ID	9.8	UT	5.2 *	DC	-26.3
43	MN	9.6	IA	4.9	IL	-26.2
44	IA	9.4	VT	4.9 *	MT	-20.3
45	ME	9.0	AR	4.8	SD	-18.3
46	WY	9.0 *	WI	4.7	CA	-17.3
47	NJ	7.9	RI**	4.6	MN	-15.0
48	MT	7.7	NJ	4.3	MI	-13.9
49	CA	7.4	CO	3.8	PA	-13.3
50	SD	6.5	WY**	3.8 *	HI	-8.2
51	ND	5.5	KS	3.7	ND	1.0

Notes: \*State ties for the same rank as the state above it; for example, in 1994 14 percent of teachers were threatened by students in both Kentucky and Georgia, so both states were ranked 11<sup>th</sup>.

\*\*Interpret with caution due to low frequency (an estimated 300 teachers in Wyoming and 600 in Rhode Island). Staff calculated the percent difference unrounded percentages for FY 1994 and FY 2004.

Source: U.S. Dept. of Ed. Natl. Ctr. *Indicators of School Crime* 81.

Kentucky has below-average rates of student-reported incidents involving violence and substance abuse.

**Student-reported Incidents.** Table 2.14 shows various undesirable incidents reported by students, including fighting, being threatened with weapons, and having access to drugs on school property and using alcohol on or off school property. Among 43 states reporting, Kentucky is lower than average on all measures.

**Table 2.14**  
**Percent of Students Reporting Incidents in Previous 12 Months:**  
**Average of Surveys Conducted in 2003 and 2005**

Rank	On School Property								Anywhere	
	Were in a Fight		Were Threatened or Injured With Weapon		Had Drugs Available to Them		Used Alcohol		Used Alcohol	
	State	%	State	%	State	%	State	%	State	%
1	DC	15.8	DC	12.4	NM	33.5	HI	8.8	ND	51.6
2	NM	15.7	MD	11.7	NV	33.5 *	NM	7.6	MT	49.1
3	MD	14.9	NM	10.4	AZ	33.4	NV	7.1	AZ	49.0
4	TX	14.5	SC	10.1	ME	33.0	AZ	7.0	SD	48.4
5	AR	13.9	AZ	9.9	HI	32.7	CT	6.7	WI	48.2
6	AL	13.7	AR	9.6	NJ	32.6	MT	6.5	CO	47.4
7	NY	13.5	NE	9.3	GA	32.0	WY	6.2	TX	47.3
8	NV	13.4	TX	9.3 *	CT	31.5	SC	6.0	WY	47.2
	U.S.	13.2								
9	SC	12.7	MI	9.2	OH	31.0	CO	5.9	MA	46.8
10	WY	12.5	CT	9.1	MA	30.9	TX	5.7	NJ	46.5
11	FL	12.4	ID	8.9	TX	30.7	WV	5.3	NH	45.6
12	VT	12.2	AL	8.9 *	MI	30.1	AR	5.2	CT	45.3
13	CO	12.1	WY	8.7	NC	29.6	DE	5.2	MO	45.0
14	ID	11.9	UT	8.6	AR	29.2	VT	5.1	NE	44.7
			U.S.	8.6 *						
15	WI	11.9	RI	8.4	SC	29.1	KS	5.1	DE	44.2
16	MI	11.8	WV	8.3	MD	28.9	RI	4.9	OK	44.2 *
									U.S.	44.1
17	OK	11.7	MO	8.3	IN	28.6	MS	4.9 *	KS	43.9
18	GA	11.6	GA	8.2	AK	28.4	AK	4.9 *	IA	43.8
19	TN	11.5	NH	8.1	NH	27.5	FL	4.8	NY	43.8 *
20	KY	11.4	AK	8.1 *	DE	27.0	MA	4.8 *	RI	43.6
					U.S.	27.0	U.S.	4.7		
21	AZ	11.3	FL	8.1	VT	26.2	DC	4.7 *	SC	43.2
22	RI	11.3 *	OH	8.0	AL	26.1	SD	4.7 *	IN	43.2 *
23	IA	11.3 *	NJ	8.0 *	MT	26.1 *	NY	4.6	AR	43.1
24	NH	11.2	TN	7.9	WV	25.6	IA	4.6 *	WV	43.0
25	WV	11.2 *	IN	7.8	TN	25.5	NC	4.5	VT	42.6
26	IN	11.1	ME	7.8 *	DC	25.3	ND	4.4	ME	42.6 *
27	NC	11.1 *	IA	7.8 *	KY	25.1	AL	4.3	NV	42.4
28	UT	11.1 *	CO	7.6	RI	25.0	KY	4.1	NM	42.3
29	OH	10.8	NC	7.5	FL	24.4	NE	4.1 *	OH	42.3 *
30	MT	10.6	MT	7.5 *	WI	24.0	MI	4.1 *	MS	41.8
31	DE	10.6 *	KS	7.4	NY	23.3	ID	4.1 *	TN	41.4

Continued on next page.

Table 2.14 continued

Rank	On School Property								Anywhere	
	Were in a Fight		Were Threatened or Injured With Weapon		Had Drugs Available to Them		Used Alcohol		Used Alcohol	
	State	%	State	%	State	%	State	%	State	%
32	CT	10.5	SD	7.3	UT	22.7	NH	4.0	KY	41.3
33	MS	10.3	NY	7.2	NE	22.6	GA	4.0 *	FL	41.2
34	MA	10.2	NV	7.0	MS	22.3	TN	3.9	MI	41.0
35	NJ	10.1	HI	6.9	ID	22.2	ME	3.8	NC	40.9
36	KS	10.1 *	DE	6.9 *	SD	21.5	NJ	3.7	AL	39.8
37	NE	10.0	VT	6.8	CO	21.2	IN	3.6	MD	39.8 *
38	MO	10.0 *	OK	6.7	WY	20.4	OH	3.6 *	GA	38.8
39	HI	10.0 *	KY	6.6	ND	20.4 *	OK	3.5	AK	38.7
40	ME	9.6	MS	6.6 *	OK	20.3	MD	3.2	ID	37.3
41	ND	9.6 *	WI	6.5	MO	19.9	MO	2.9	HI	34.8
42	SD	8.7	ND	6.2	KS	16.7	UT	2.9 *	DC	28.5
43	AK	8.6	MA	5.9	IA	15.5	CA	—	UT	18.5
	CA	—	CA	—	CA	—	IL	—	CA	—
	IL	—	IL	—	IL	—	LA	—	IL	—
	LA	—	LA	—	LA	—	MN	—	LA	—
	MN	—	MN	—	MN	—	OR	—	MN	—
	OR	—	OR	—	OR	—	PA	—	OR	—
	PA	—	PA	—	PA	—	VA	—	PA	—
	VA	—	VA	—	VA	—	WA	—	VA	—
	WA	—	WA	—	WA	—	WI	—	WA	—

Notes: \*State ties for the same rank as the state above it. For example, the percent of students who fought on school property was 11.3 percent in Arizona, Rhode Island, and Iowa followed by 11.2 percent in New Hampshire and West Virginia; therefore, three states were ranked 21<sup>st</sup>, and the other two were ranked 24<sup>th</sup>. A few states reported only in 2003, while a few others reported only in 2005. For these states, staff used the data for the year the state reported and then averaged the 2003 and 2005 data for states that reported in both years. States that failed to report in both 2003 and 2005 are indicated by —.

Source: Staff calculations using data from U.S. Dept. of Ed. Natl. Ctr. *Indicators of School Crime* 76, 93, 100, and 104.

## School Finance

### Revenues

Kentucky ranks 45<sup>th</sup> in terms of revenues per pupil. When revenues are adjusted for geographic differences in the cost of living, Kentucky rises to 41<sup>st</sup>.

Table 2.15 reports combined federal, state, and local revenues per pupil, before and after adjusting for geographic differences in the cost of living. Kentucky ranks 45<sup>th</sup> with respect to unadjusted revenues per pupil. When revenues are adjusted, Kentucky rises to 41<sup>st</sup>.

**Table 2.15**  
**Combined Federal, State, and Local Revenues Per Pupil, Unadjusted and Adjusted for Geographic Cost Differences: FY 2005**

Rank	State	Unadjusted \$	State	Cost-adjusted \$
1	DC	17,809	WY	16,647
2	NJ	16,213	VT	15,732
3	NY	15,791	DC	14,757
4	CT	13,890	NJ	14,417
5	MA	13,474	NY	14,134
6	WY	13,434	ME	13,463
7	VT	13,298	HI	13,075
8	HI	12,415	PA	12,857
9	RI	12,329	AK	12,760
10	DE	12,255	CT	12,644
11	PA	12,208	IN	12,636
12	AK	12,064	MA	12,441
13	MD	11,466	RI	12,210
14	ME	11,259	DE	12,068
15	IN	11,226	NH	11,951
16	NH	11,085	MT	11,824
17	WI	10,997	NE	11,799
18	OH	10,884	WI	11,582
19	MI	10,486	ND	11,505
20	MN	10,360	OH	11,336
	U.S.	10,159		
21	IL	10,101	WV	11,325
22	VA	9,956	IA	11,160
23	NE	9,916	SD	11,021
24	WV	9,637	MI	10,776
25	CA	9,582	MD	10,699
26	GA	9,479	MN	10,673
27	IA	9,324	KS	10,541
28	ND	9,210	AR	10,430

Continued on next page.

**Table 2.15 continued**

<b>Rank</b>	<b>State</b>	<b>Unadjusted \$</b>	<b>State</b>	<b>Cost-adjusted \$</b>
29	MO	9,154	NM	10,361
			U.S.	10,159
30	NM	9,146	MO	10,155
31	OR	9,035	SC	10,000
32	SC	9,023	IL	9,892
33	KS	9,013	OR	9,880
34	CO	8,958	FL	9,613
35	WA	8,941	GA	9,565
36	FL	8,775	LA	9,524
37	MT	8,772	VA	9,333
38	TX	8,686	CO	9,275
39	AR	8,587	OK	9,189
40	NV	8,438	AL	9,179
41	SD	8,409	KY	9,096
42	LA	8,322	MS	8,856
43	NC	8,162	ID	8,757
44	AL	8,073	TX	8,707
45	KY	8,066	CA	8,684
46	AZ	7,817	WA	8,673
47	OK	7,775	NC	8,559
48	MS	7,349	AZ	8,540
49	TN	7,202	NV	8,431
50	ID	7,074	TN	7,792
51	UT	6,510	UT	7,125

Sources: Unadjusted revenues from U.S. Census Bureau. *Public Education Finances* 11; cost-adjusted revenues calculated by OEA staff using unadjusted revenues and 2004 NCES comparable wage index from U.S. Dept. of Ed. Natl. Ctr. "NCES Comparable Wage Index."

Compared to other states, Kentucky draws a much smaller share of revenues from local sources than from state and federal sources. Kentucky ranks 41<sup>st</sup> in terms of the percent of revenues from local sources but 12<sup>th</sup> (tied with California) in terms of the percent from federal sources and 13<sup>th</sup> in terms of the percent from state sources.

Table 2.16 shows the percentages of revenues that come from federal, state, and local sources. Compared to other states, Kentucky draws a much smaller share of revenues from local sources than from state and federal sources. Kentucky ranks 41<sup>st</sup> in terms of the percent of revenues from local sources but 12<sup>th</sup> (tied with California) in terms of the percent from federal sources and 13<sup>th</sup> in terms of the percent from state sources.

**Table 2.16**  
**Revenues by Source as Percentage of Total Revenues: FY 2005**

Rank	Federal Sources		State Sources		Local Sources	
	State	%	State	%	State	%
1	AK	18.9	HI	87.4	DC	84.9
2	SD	16.8	VT	87.2	NE	58.5
3	NM	16.1	AR	75.6	CT	57.6
4	ND	16.1 *	NM	70.5	IL	57.2
5	MS	15.2	MN	69.6	PA	56.2
6	DC	15.1	DE	64.8	MD	55.5
7	MT	14.9	WA	61.3	NH	55.2
8	LA	14.1	MI	60.1	TX	54.5
9	OK	13.9	WV	59.7	NJ	53.9
10	WV	12.2	NV	59.2	RI	52.8
11	AZ	12.0	NC	58.0	VA	52.4
12	CA	11.9	CA	58.0 *	MA	51.8
13	KY	11.9 *	KY	57.3	ME	51.0
14	TN	11.6	ID	57.0	CO	50.1
15	AL	11.3	KS	55.9	SD	49.8
16	AR	11.3 *	AL	55.2	OH	49.8 *
17	TX	10.9	AK	54.9	NY	48.9
18	ID	10.7	UT	54.4	IN	47.9
19	NE	10.5	MS	53.9	MO	47.6
20	HI	10.4	WY	51.8	FL	47.1
21	UT	10.3	WI	50.5	ND	47.0
22	SC	10.1	OK	49.9	GA	46.8
23	NC	10.1 *	OR	49.0	IA	45.8
			U.S.	47.0		
24	FL	10.0	LA	46.7	SC	45.1
25	OR	10.0 *	IA	46.0	TN	44.7
					U.S.	43.9
26	WY	9.4	IN	45.9	AZ	43.6
27	GA	9.3	MT	45.0	WI	43.5
	U.S.	9.1				
28	ME	8.9	SC	44.8	OR	41.0
29	IL	8.7	AZ	44.4	MT	40.1
30	WA	8.7 *	MO	44.0	LA	39.2
31	KS	8.5	NY	43.9	WY	38.8

Continued on next page.

**Table 2.16 continued**

Rank	Federal Sources		State Sources		Local Sources	
	State	%	State	%	State	%
32	MO	8.4	GA	43.8	OK	36.2
33	MI	8.3	TN	43.7	KS	35.7
34	IA	8.2	CO	43.1	UT	35.3
35	PA	8.1	OH	42.9	AL	33.5
36	DE	7.7	FL	42.8	NV	33.4
37	RI	7.7 *	MA	42.2	ID	32.3
38	VT	7.6	NJ	41.9	NC	31.9
39	NV	7.4	VA	40.7	MI	31.6
40	OH	7.3	ME	40.1	MS	30.9
41	NY	7.2	RI	39.5	KY	30.8
42	VA	6.9	NH	39.2	CA	30.1
43	CO	6.9 *	MD	37.7	WA	30.0
44	MD	6.8	CT	37.2	WV	28.1
45	MN	6.2	ND	36.9	DE	27.4
46	IN	6.2 *	PA	35.6	AK	26.1
47	WI	6.0	TX	34.6	MN	24.2
48	MA	5.9	IL	34.1	NM	13.4
49	NH	5.6	SD	33.4	AR	13.2
50	CT	5.2	NE	31.1	VT	5.2
51	NJ	4.2	DC	0.0	HI	2.2

Notes: \*State ties for same rank as state above it. For example, Kentucky ties with California for 12<sup>th</sup> place in terms of the percent of funding from federal sources.

Source: Staff calculations using data from U.S. Census Bureau. *Public Education Finances 1*.

### **Current Spending Relative to Enrollment and Per Capita Income**

Current spending includes expenditures for day-to-day operations, payments made by the state government on behalf of districts, and employer contributions made by the few school systems that administer their own retirement funds (U.S. Census Bureau. *Public vi*). It excludes capital outlay and interest on debt.

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Current spending pertains to operations; it excludes capital outlay and interest on debt. Kentucky's current spending per pupil is below the national average, even after adjusting for geographic differences in the cost of living.

Table 2.17 displays FY 2005 current spending per pupil before and after adjusting for geographic differences in costs, and current spending per \$1,000 in personal income. Kentucky's current expenditures per pupil are \$7,118, far below the \$8,701 national average. When these expenditures are adjusted for geographic differences in costs, Kentucky moves up from 43<sup>rd</sup> to 38<sup>th</sup> but is still below the national average.

Table 2.17 also reports current spending per \$1,000 in personal income. This analysis provides another way of adjusting for

geographic cost differences, by taking into account the ability of taxpayers to support education. On this measure, Kentucky is very close to the national average.

**Table 2.17**  
**Current Spending Per Pupil, Unadjusted and Adjusted for Geographic Cost Differences, and Per \$1,000 in Personal Income: FY 2005**

Rank	Per Pupil			Per \$1,000 in Personal Income		
	State	Unadjusted \$	State	Cost-adjusted \$	State	\$
1	NY	14,119	VT	14,001	AK	64.50
2	NJ	13,800	WY	12,708	VT	59.68
3	DC	12,979	NY	12,637	WV	54.92
4	VT	11,835	NJ	12,271	NJ	53.97
5	CT	11,572	ME	12,084	NY	53.96
6	MA	11,267	AK	11,455	ME	52.25
7	DE	10,910	PA	11,113	MI	50.76
8	AK	10,830	MT	10,862	AR	48.94
9	PA	10,552	DC	10,755	NM	48.75
10	RI	10,371	DE	10,744	WY	48.69
11	WY	10,255	WV	10,582	OH	47.63
12	ME	10,106	CT	10,534	IN	47.59
13	MD	9,815	MA	10,403	WI	47.44
14	WI	9,744	RI	10,271	GA	47.09
15	NH	9,448	WI	10,262	SC	46.81
16	MI	9,329	ND	10,193	MS	46.80
17	OH	9,260	NH	10,186	RI	45.94
18	WV	9,005	IN	9,903	MT	45.77
19	HI	8,997	NE	9,855	TX	45.62
20	IL	8,944	OH	9,645	PA	45.06
21	VA	8,891	MI	9,587	LA	44.81
22	IN	8,798	IA	9,542	ND	44.24
	U.S.	8,701			U.S.	43.40
23	MN	8,662	HI	9,475	KY	42.93
24	NE	8,282	SD	9,432	NE	42.33
25	ND	8,159	MD	9,159	KS	42.22
26	OR	8,115	AR	9,115	MA	42.14
27	CA	8,067	KS	9,012	DE	42.11
28	MT	8,058	MN	8,924	IL	42.01
29	GA	8,028	OR	8,874	IA	41.80
30	IA	7,972	IL	7,132	NH	41.74
31	CO	7,730	LA	8,704	CT	41.74 *
			U.S.	8,701		
32	MO	7,717	NM	8,587	ID	41.71
33	KS	7,706	MO	8,561	OK	41.59

Continued on next page.

Table 2.17 continued

Rank	Per Pupil			Per \$1,000 in Personal Income		
	State	Unadjusted \$	State	Cost-adjusted \$	State	\$
34	LA	7,605	SC	8,373	AL	40.71
35	NM	7,580	VA	8,334	OR	40.53
36	WA	7,560	GA	8,101	UT	40.42
37	SC	7,555	AL	8,034	MO	40.32
38	AR	7,504	KY	8,027	CA	40.19
39	TX	7,267	CO	8,004	VA	40.13
40	FL	7,207	MS	7,924	HI	40.07
41	SD	7,197	FL	7,895	NC	38.59
42	NC	7,159	OK	7,816	MN	38.57
43	KY	7,118	ID	7,778	MD	38.41
44	AL	7,066	NC	7,507	SD	37.38
45	TN	6,729	WA	7,333	AZ	36.51
46	NV	6,722	CA	7,311	TN	36.30
47	OK	6,613	TX	7,285	CO	36.00
48	MS	6,575	TN	7,280	WA	35.55
49	ID	6,283	AZ	6,840	NV	33.89
50	AZ	6,261	NV	6,717	FL	33.74
51	UT	5,257	UT	5,754	DC	32.07

Notes: \* Connecticut ties with New Hampshire for the rank of 30<sup>th</sup> for current spending per \$1,000 personal income.  
Sources: Unadjusted numbers from U.S. Census Bureau. *Public Education Finances* 11-12. Staff calculated adjusted numbers from unadjusted numbers and the 2004 NCES Comparable Wage Index from U.S. Dept. of Ed. Natl. Ctr. "NCES Comparable Wage."

### Current Spending on Instruction and Other Functions

A growing nationwide interest in how schools and districts spend education funds necessitates a close look at how expenditures are classified. This section discusses NCES and Census Bureau classifications.

A recent report by OEA discussed the increasing focus nationwide on the efficiency and effectiveness of schools and districts; investigating these issues requires valid and reliable information regarding how funds are used (Commonwealth. Legislative). The following pages describe how NCES and the Census Bureau break out current expenditures by function, as background to the tables that follow. The instruction function is discussed last due to the difficulties and controversies surrounding its definition.

Support services include a wide variety of activities that occur outside the classroom.

**Support Services.** These services include a wide variety of activities that occur outside the classroom. They include payments from all funds for salaries, employee benefits (paid by the school or the state), supplies, materials, and contractual services associated with the following activities:

- *General Administration* includes the board of education and executive administration (office of the superintendent) services.

- *Instructional Staff Support* includes supervision of instruction service improvements; curriculum development; instructional staff training; and media, library, audiovisual, television, and computer-assisted instruction services.
- *Operation and Maintenance of Plant* includes building services (heating, electricity, air conditioning, property insurance), care and upkeep of grounds and equipment, nonstudent transportation vehicle operation and maintenance, and security services.
- *Pupil Support Services* include attendance record keeping, social work, student accounting, counseling, student appraisal, record maintenance, and placement services. This category also includes medical, dental, nursing, psychological, and speech services.
- *Pupil Transportation Services* include transportation of public school students including vehicle operation, rider monitoring, and vehicle servicing and maintenance.
- *School Administration* includes office of principal services.
- *Other Support Services* include central/business support and other support services. Business support services include payments for fiscal services, purchasing, warehousing, supply distribution, printing, publishing, and duplicating services. Central support services include planning, research, development, and evaluation services. They also include information services, staff services (recruitment, staff accounting, noninstructional in-service training, staff health services), and data processing services.
- *Nonspecified Support Services* include expenditures that pertain to more than one of the above categories. In some cases, reporting units could not provide distinct expenditure amounts for each support services category. This expenditure is included in “nonspecified” instead of “other support services” (U.S. Census Bureau. *Public A-5*).

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The spending category called all other functions or noninstruction includes food services, enterprise operations, community services, and adult education.

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Instruction expenditures include teacher compensation, purchased services, tuition, and supply costs for the interaction between teachers and students.

**All Other Functions.** This category, which is also sometimes called noninstruction, includes all expenditures not related to instruction or support services, such as food services, enterprise operations, community services, and adult education (U.S. Census Bureau. *Public A-3*).

**Instruction.** Instruction expenditures include teacher salaries and benefits, purchased services, tuition payments, and supply costs incurred for year-round activities dealing directly with the interaction between teachers and students (U.S. Dept. of Ed. Natl. Ctr. *Natl. Public 50-51*).

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Instructional activities include coaching and supervising. They may occur in classrooms, homes, hospitals, cocurricular activities, and through such media as television and correspondence.

Instructional activities may occur in a classroom, in another location such as a home or hospital, in other learning situations such as cocurricular activities, or through an approved medium such as television or correspondence between teachers and students. Teachers' coaching and supervising of cocurricular and extracurricular activities is considered instructional (U.S. Dept. of Ed. Natl. Ctr. *Natl. Public* 51, 54).

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Salaries and benefits make up 90 percent of instructional expenditures. Instruction personnel include full-time, part-time, substitute, and home- or hospital-based teachers; those on sabbatical; classroom assistants; clerks; and graders.

Using data from the Census Bureau's *Public Education Finances*, staff calculated that salaries and benefits make up 90 percent of instructional expenditures for the U.S. as a whole and 94 percent in Kentucky (6). Instruction personnel include not only full-time classroom teachers but also part-time, substitute, and home- or hospital-based teachers; teachers on sabbatical leave; classroom assistants; clerks; and graders.

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The distinction between instruction and noninstruction is sometimes blurred, with the same activities classified in different ways depending on who performs them and whether they generate self-sustaining revenues.

The distinction between instruction and noninstruction is sometimes blurred, with the same activities classified in different ways depending on who performs them and whether they generate self-sustaining revenues. For example, nonteachers are excluded even when engaged in duties that teachers also could perform, such as librarians who teach students about conducting research or guidance counselors who work with students on job-readiness skills.

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Several states' interest in the "65 Percent Solution," a plan that channels at least 65 percent of education dollars to classroom instruction, has provoked controversy about the way NCES defines "instruction." Coaches and extracurricular activities are considered instruction, while librarians, library costs, guidance counselors, and professional development are not.

Recent changes in state education policies have led to more scrutiny of the way NCES defines "instruction." A report by OEA mentioned that some states have passed or are considering laws that require school districts to spend at least 65 percent of their budgets on classroom instruction, using the NCES definition of instruction (Commonwealth. Legislative 11-13). Dubbed the "65 Percent Solution," this plan is controversial, in part because the NCES definition of instruction includes coaches and extracurricular activities but excludes librarians and library expenses, guidance counselors, and professional development. A number of policy makers, including the founders of the 65 Percent Solution, have called publicly for NCES to revise its definition.

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After adopting the 65 Percent Solution, Texas added librarians to its definition of instruction.

At least one state changed its own definition unilaterally. After issuing an executive order to move districts toward spending 65 percent on instruction based on the NCES definition, the governor of Texas was accused of "putting sports before education" (Elliott). Subsequently, Texas added librarians to its definition (State of Texas). If the 65 Percent Solution leads more states to create their own definitions, comparability across states will be reduced.

Last year, NCES introduced an "instruction and instruction-related" category that includes librarians. Many states including Kentucky spend 65 percent or more in this new category. However, the Census Bureau continues to report expenditures using the older definition of instruction.

In July 2006, NCES introduced a new "instruction and instruction-related" category that includes librarians. NCES said that this and the other new categories "provide a clearer picture of how education dollars are spent" (U.S. Dept. of Ed. Natl. Ctr. *Current Expenditures*). Under the new instruction and instruction-related definition, 30 states spent 65 percent or more on instruction in FY 2004, compared to just two states under the old definition in FY 2003. Although subsequent NCES publications have used the new categories, the Census Bureau continues to break out spending using the old definition (U.S. Dept. of Ed. Natl. Ctr. *Overview and Revenues*; U.S. Census Bureau *Public*). This compendium breaks out current spending by the old categories in Table 2.18 and the new categories in Table 2.19.

Under the older definition still used by the Census Bureau, Kentucky spent 58.9 percent on instruction in FY 2005, which is below the national average and puts it in a tie with Oregon for a rank of 38<sup>th</sup>.

Table 2.18 shows the distribution of current spending by the older categories of instruction, support services, and all other functions. By these definitions, only two states spent 65 percent or more on instruction in FY 2005. Kentucky spent 58.9 percent on instruction, which is below the national average of 60.5 percent and which puts Kentucky in a tie with Oregon for a rank of 38<sup>th</sup>.

**Table 2.18**  
**Spending on Instruction, Support Services, and Other Functions as Percentages of Current Spending: FY 2005**

Rank	Instruction		Support Services		All Other Functions	
	State	%	State	%	State	%
1	NY	69.1	DC	47.5	OK	10.8
2	ME	65.4	CO	39.2	UT	9.1
3	TN	64.3	MI	39.1	AL	8.8
4	NH	63.8	AK	38.7	MN	8.7
5	MA	63.5	OH	38.3	HI	8.1
6	VT	63.3	NM	38.2	ND	7.9
7	GA	63.1	WY	37.5	MS	7.1
8	NC	63.0	AZ	37.5 *	FL	7.0
9	NE	62.8	NJ	37.4	KY	6.9
10	CT	62.8 *	OR	37.1	WV	6.8
11	MN	62.3	IL	36.9	LA	6.6
12	ID	61.9	OK	36.2	MO	6.4
13	UT	61.7	RI	36.0	SC	6.4 *
14	NV	61.5	IN	35.9	CA	6.0
15	DE	61.0	SC	35.4	NM	6.0 *
16	VA	60.9	FL	35.2	NC	5.9

Continued on next page.

Table 2.18 continued

Rank	Instruction		Support Services		All Other Functions	
	State	%	State	%	State	%
17	ND	60.8	PA	35.2 *	TX	5.9 *
18	MT	60.8 *	SD	35.1	TN	5.9 *
19	MD	60.7	WI	34.8	AZ	5.8
20	WI	60.7 *	KS	34.8 *	AR	5.8 *
21	AR	60.7 *	MT	34.7	IA	5.6
22	IA	60.5	WA	34.7 *	WA	5.5
	U.S.	60.5				
23	KS	60.1	CA	34.5	NE	5.4
					U.S.	5.3
24	PA	59.9	MD	34.5 *	GA	5.3 *
25	WV	59.8	TX	34.5 *	SD	5.2
26	WA	59.7	MO	34.4	KS	5.1
			U.S.	34.3		
27	SD	59.7 *	VA	34.3	MI	5.1 *
28	RI	59.7 *	NV	34.2	DE	5.0
29	TX	59.6	KY	34.2 *	PA	4.9
30	LA	59.6 *	DE	34.0	OH	4.9 *
31	IN	59.5	IA	33.9	ID	4.8
32	CA	59.5 *	LA	33.8	MD	4.8 *
33	MS	59.3	MS	33.6	VA	4.7
34	MO	59.2	AR	33.6 *	ME	4.6
35	IL	59.1	VT	33.6 *	IN	4.6 *
36	HI	59.1 *	WV	33.4	WI	4.5
37	WY	59.0	ID	33.3	MT	4.5 *
38	OR	58.9	AL	33.2	RI	4.4
39	KY	58.9 *	MA	33.1	CO	4.3
40	NJ	58.5	CT	33.1 *	NV	4.3 *
41	SC	58.3	NH	32.9	CT	4.2
42	AL	58.0	HI	32.8	NJ	4.1
43	FL	57.8	NE	31.7	DC	4.1 *
44	AK	57.4	GA	31.6	IL	4.0
45	OH	56.9	ND	31.3	OR	4.0 *
46	AZ	56.7	NC	31.1	AK	3.9
47	CO	56.5	ME	30.0	MA	3.4
48	MI	55.9	TN	29.8	WY	3.4 *
49	NM	55.8	UT	29.2	NH	3.3
50	OK	53.1	MN	29.0	VT	3.1
51	DC	48.4	NY	28.0	NY	2.9

Note: \*State ties for the same rank as the state above it; for example, Kentucky and Oregon each devote 58.9 percent of current spending to instruction, so they tie for a rank of 38<sup>th</sup>.

Source: Staff calculations of percentages using dollar amounts in U.S. Census Bureau. *Public 6*.

Under the newer definition used by NCES, Kentucky spent 65.6 percent on instruction and instruction-related expenditures in FY 2005, which is close to the national average and puts it in 22<sup>nd</sup> place.

Table 2.19 shows the distribution of current spending by the newer categories of instruction and instruction-related (including librarians), student support services, administration, and operations. The number of states spending 65 percent or more on instruction is 29 by this definition, in contrast to just two by the older definition shown in Table 2.18. Kentucky spent 65.6 percent on instruction and instruction-related activities, which is close to the national average and puts Kentucky in 22<sup>nd</sup> place.

**Table 2.19**  
**Spending on Instruction and Instruction-related, Student Support Services, Administration, and Operations Functions, As Percentages of Current Spending: FY 2005**

Rank	Instruction & Instruction Related		Student Support Services		Administration		Operations	
	State	%	State	%	State	%	State	%
1	NY	71.5	HI	11.0	CO	17.2	WV	22.9
2	TN	70.1	RI	10.1	OR	14.1	ND	21.7
3	ME	70.0	NM	9.9	DE	13.6	OK	21.4
4	MN	69.5	NJ	9.0	DC	13.6 *	DE	21.0
5	GA	68.4	MI	7.2	OH	13.6 *	AL	20.6
6	MA	68.4 *	VT	7.2	NV	13.1	DC	20.6 *
7	UT	68.1	OR	6.9	MI	13.0	KY	20.4
8	NH	67.9	SC	6.9 *	SD	12.4	FL	20.2
9	VA	67.7	NH	6.7	WI	12.4 *	IN	20.2 *
10	VT	67.6	OK	6.6	CA	12.3	LA	20.2 *
11	CA	67.2	AK	6.3	AZ	12.2	AK	19.8
12	MD	67.0	IL	6.3 *	ND	12.0	MS	19.8 *
13	CT	66.9	WA	6.3 *	IL	11.9	AZ	19.7
14	NE	66.8	MA	6.1	KS	11.8	SD	19.4
15	RI	66.8 *	OH	6.0	NC	11.8 *	MO	19.2
16	AR	66.6	WY	5.9	IN	11.7	TX	19.1
17	WI	66.4	CT	5.8	WA	11.4	PA	18.8
18	NV	66.3	IA	5.8 *	VT	11.3	MT	18.7
19	ID	66.0	KS	5.8 *	AR	11.2	NJ	18.6
20	IA	66.0 *	AZ	5.6	IA	11.2 *	UT	18.6 *
	U.S.	65.9						
21	SC	65.8	ID	5.6 *	OK	11.2 *	VA	18.6 *
22	KY	65.6	SD	5.5	WY	11.2 *	ID	18.5
23	PA	65.5	MT	5.4	AK	11.1	KS	18.5 *
24	HI	65.4	NC	5.4 *	MT	11.1 *	MD	18.5 *
			U.S.	5.2				
25	NC	65.4 *	DC	5.1	NM	11.1 *	NE	18.4
					U.S.	11.0		
26	MO	65.3	AL	5.0	PA	10.9	NM	18.4 *
27	TX	65.3 *	TX	4.9	MS	10.8	WY	18.3

Continued on next page.

Table 2.19 continued

Rank	Instruction & Instruction Related		Student Support Services		Administration		Operations	
	State	%	State	%	State	%	State	%
28	FL	65.2	DE	4.8	TX	10.8 *	WA	18.2
29	LA	65.2 *	FL	4.8 *	AL	10.7	MI	18.1
							U.S.	17.8
30	MT	64.9	MS	4.8 *	MO	10.7 *	MN	17.8 *
31	MS	64.6	MO	4.8 *	NE	10.6	AR	17.7
32	WY	64.5	PA	4.8 *	GA	10.5	IL	17.7 *
33	WA	64.1	VA	4.8 *	LA	10.3	SC	17.5
34	IL	64.0	GA	4.7	HI	10.2	ME	17.4
35	KS	63.9	CA	4.6	MD	10.1	NC	17.4 *
36	WV	63.9 *	WI	4.6 *	KY	10.0	TN	17.4 *
37	AL	63.8	AR	4.5	CT	9.9	CT	17.3
38	IN	63.7	IN	4.4	ID	9.9 *	IA	17.0
39	OH	63.6	LA	4.4 *	MN	9.9 *	NV	16.9
40	AK	62.8	CO	4.3	NJ	9.9 *	OH	16.9 *
41	AZ	62.6	MD	4.3 *	FL	9.8	CO	16.8
42	OR	62.6 *	NE	4.2	NH	9.7	WI	16.6
43	SD	62.6 *	ND	4.1	SC	9.7 *	GA	16.4
44	NJ	62.5	KY	4.0	WV	9.7 *	MA	16.4 *
45	ND	62.1	NV	3.8	UT	9.5	OR	16.4 *
46	CO	61.7	UT	3.7	ME	9.1	NY	16.2
47	MI	61.7 *	ME	3.5	MA	9.1 *	CA	15.9
48	OK	60.8	WV	3.5 *	TN	9.1 *	NH	15.7
49	DE	60.7	NY	3.3	NY	8.9	RI	14.3
50	DC	60.7 *	TN	3.3 *	VA	8.9 *	VT	13.8
51	NM	60.6	MN	2.8	RI	8.7	HI	13.5

Note: \*State ties for the same rank as the state above it; for example, with 68.4 percent of current spending dedicated to instruction and instruction-related expenditures, Georgia and Massachusetts tie for the rank of 5<sup>th</sup>.

Source: U.S. Dept. of Ed. Natl. Ctr. *Revenues and Expenditures* 7.

## Chapter 3

### Student Assessment Data

#### Introduction

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This chapter focuses on rankings based on student assessments conducted by both governmental and independent organizations. The chapter covers the ACT, Advanced Placement, SAT, and National Assessment of Educational Progress tests.

This chapter presents information and state rankings on student assessments conducted by both governmental and independent organizations. The assessments discussed are listed below.

- ACT, Inc.: *2006 Average ACT Scores by State*
- College Board: *Advanced Placement: Report to the Nation 2007*
- College Board: “Mean SAT Reasoning Test Critical Reading, Math, and Writing Scores by State, with Changes for Selected Years.” *2006 College-Bound Seniors*
- U.S. Department of Education: “State Comparisons.” *2005 National Assessment of Educational Progress (NAEP): The Nation’s Report Card*

## Rankings

### ACT, Inc. *The ACT High School Achievement and College Readiness Exam*

#### Background

ACT, Inc. is an independent, not-for-profit organization. It initially offered one test—the high school achievement and college readiness test that is still called "the ACT" today.

Established in 1959 as the American College Testing Program, Inc., and later officially shortened to ACT, Inc., this independent, not-for-profit organization initially offered one high school achievement and college readiness test. This test, called the ACT, is still used today. In the past 50 years, ACT, Inc. has added a variety of other assessment, research, information, and program management services in education and workforce development (ACT, Inc. *ACT Newsroom*).

The ACT test consists of multiple-choice tests that cover English, mathematics, reading, and science. The test also includes a relatively new optional writing test.

The ACT consists of multiple-choice tests that cover English, mathematics, reading, and science. The test also includes a relatively new optional writing test that entails planning and writing a short essay. The maximum score for each test is 36. The ACT composite score is the average of the scores on the four multiple-choice tests. Table 3.1 shows the distribution of items by content area.

**Table 3.1**  
**ACT Test Items by Content Area**

<b>ACT College Readiness Test Content Areas</b>	<b>Number of Multiple Choice Items</b>
English	75
Math	60
Reading	40
Science	40
<b>Total</b>	<b>215</b>

Source: ACT. *ACT Newsroom*.

#### Caveats and Limitations

An important caveat when comparing average ACT scores across states is that the pool of test takers is very different in each state. Typically, the higher the participation rate, the lower the average score.

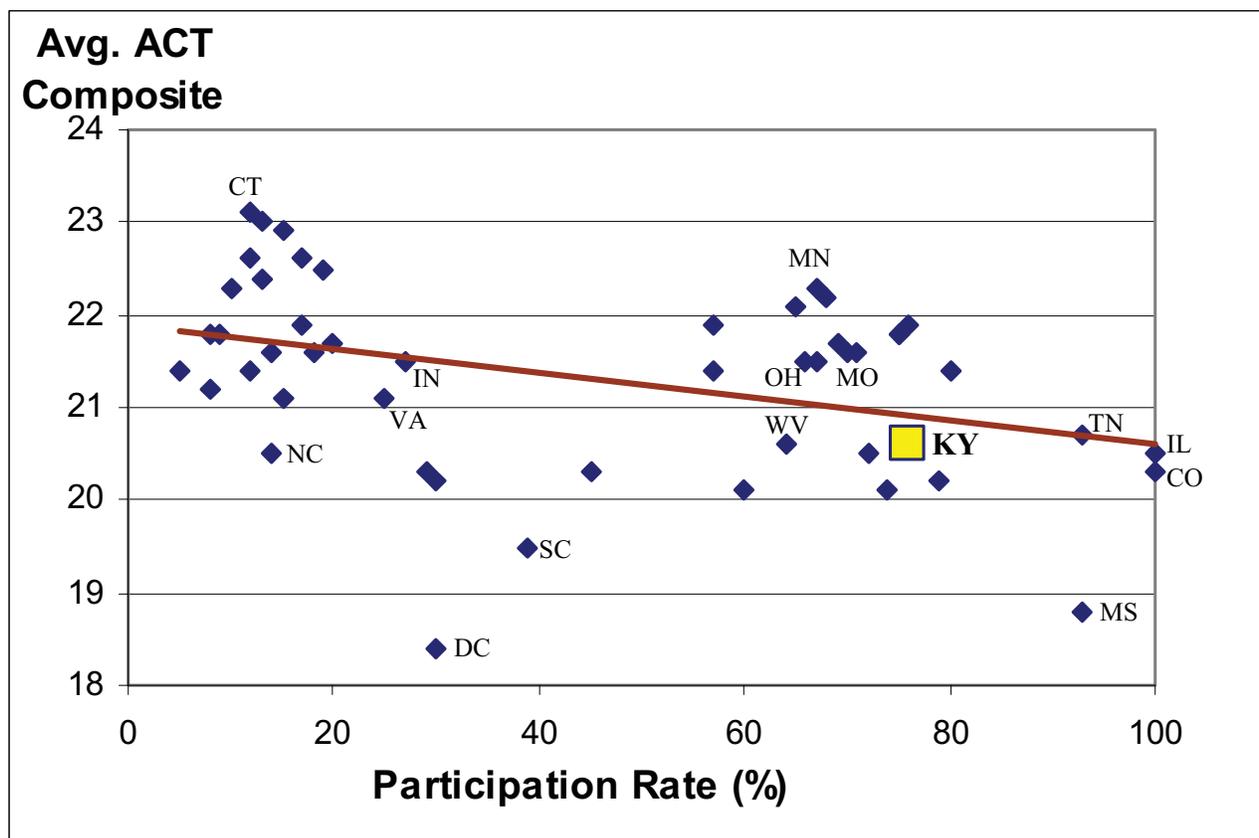
One important caveat when comparing average scores on the ACT across states is that the pool of test takers is very different in each state. Typically, the higher the participation rate, the lower the average score. In 2006, the two states that made the ACT mandatory for all high school students near the bottom with respect to the ACT composite score: Illinois ranked 39<sup>th</sup> and Colorado

ranked 42<sup>nd</sup>. In nonmandatory states, test takers may consist primarily of those students who have decided to go to college and/or those whom the school personnel encourage to take the test. As a result, in states where all students are required to take the ACT, the participation rate is associated with a small but statistically significant reduction in the average ACT composite score.<sup>5</sup>

Figure 3.A plots all states by participation rate and average ACT composite score. It illustrates that as participation rates go up composite scores go down somewhat.

To illustrate this relationship, Figure 3.A plots all states by participation rate and average ACT composite score. A statistical analysis generated a line on the chart to represent the relationship between participation rates and ACT composite scores. The line's downward slope from left to right indicates that composite scores go down somewhat as participation rates go up. Therefore, when the ACT becomes mandatory for all Kentucky students, it is likely that test scores will decline to some degree.

**Figure 3.A**  
**ACT Composite Average by Participation Rate: 2006**



Note: The large, light-colored square represents Kentucky. Small diamonds represent other states.  
Source: Staff compilation based on ACT data.

<sup>5</sup> The correlation coefficient for this relationship is -0.37. The correlation coefficient, a measure of the strength of a relationship, can range between a perfect negative correlation of -1 and a perfect positive correlation of 1.

**ACT Test Results 2006**

Average ACT scores are not comparable across all states since participation rates vary. Comparability is better among states that have similar participation rates.

Table 3.2 presents ACT participation rates and test scores. Since participation varies widely and the pool of test takers differs, scores are not comparable across all states. Comparability is better among states with similar participation rates; for example, Kentucky's scores are comparable to Nebraska's because both states have 76 percent of public and private school students taking the ACT. Also relatively comparable to Kentucky are Arkansas, Kansas, and South Dakota, in which 75 percent participate. However, it should be noted that even when two states have identical participation rates, there is no guarantee that the characteristics of test takers are the same.

**Table 3.2**  
**ACT Participation Rates and Average Scores for High School Graduates Tested: 2006**

Rank	Participation		Composite		English		Math		Reading		Science	
	State	%	State	Score	State	Score	State	Score	State	Score	State	Score
1	CO	100	CT	23.1	CT	23.0	MA	23.3	CT	23.6	WA	22.4
2	IL	100 *	MA	23.0	MA	22.9	CT	23.0	WA	23.6 *	MN	22.3
3	MS	93	WA	22.9	NH	22.4	NY	22.9	MA	23.4	NY	22.3 *
4	TN	93 *	NH	22.6	WA	22.4 *	HI	22.7	NH	23.2	CT	22.2
5	ND	80	NY	22.6 *	VT	22.1	WA	22.7 *	ME	23.1	VT	22.2 *
6	AL	79	VT	22.5	ME	22.0	NH	22.5	OR	23.1 *	WI	22.2 *
7	KY	76	OR	22.4	NY	21.8	OR	22.4	NY	22.9	IA	22.1
8	NE	76 *	ME	22.3	IA	21.6	CA	22.2	VT	22.9 *	MA	22.0
9	AR	75	MN	22.3 *	MN	21.6 *	NJ	22.2 *	MN	22.6	OR	21.9
10	KS	75 *	WI	22.2	OR	21.6 *	VT	22.2 *	IA	22.5	MT	21.8
11	SD	75 *	IA	22.1	MO	21.5	MN	22.1	MT	22.5 *	NE	21.8 *
12	LA	74	HI	21.9	NE	21.5 *	WI	22.0	UT	22.4	NH	21.8 *
13	OK	72	MT	21.9 *	NJ	21.5 *	AZ	21.9	WI	22.4 *	SD	21.8 *
14	WY	71	NE	21.9 *	WI	21.5 *	ME	21.9 *	WY	22.4 *	MI	21.7
15	MO	70	KS	21.8	KS	21.3	IA	21.8	KS	22.3	WY	21.7 *
16	UT	69	NJ	21.8 *	PA	21.3 *	MT	21.7	IN	22.2	KS	21.6
17	WI	68	PA	21.8 *	HI	21.2	PA	21.7 *	NE	22.2 *	ME	21.6 *
18	MI	67	SD	21.8 *	UT	21.2 *	IN	21.6	PA	22.2 *	UT	21.6 *
19	MN	67 *	IN	21.7	CA	21.1	NE	21.6 *	DE	22.1	HI	21.5
20	OH	66	UT	21.7 *	IN	21.1 *	SD	21.6 *	ID	22.1 *	MO	21.5 *
21	IA	65	AZ	21.6	MD	21.1 *	KS	21.5	AZ	22.0	ND	21.5 *
22	WV	64	CA	21.6 *	MT	21.0	NV	21.5 *	MO	22.0 *	OH	21.5 *
23	NM	60	MO	21.6 *	SD	21.0 *	MD	21.4	NJ	22.0 *	IN	21.4
24	ID	57	WY	21.6 *	AZ	20.9	ND	21.4 *	NV	22.0 *	PA	21.4 *
25	MT	57 *	MI	21.5	RI	20.9 *	DE	21.3	SD	22.0 *	AZ	21.3
26	FL	45	NV	21.5 *	NV	20.8	OH	21.3 *	HI	21.9	ID	21.2

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**Table 3.2 continued**

Rank	Participation		Composite		English		Math		Reading		Science	
	State	%	State	Score	State	Score	State	Score	State	Score	State	Score
	U.S.	40										
27	SC	39	OH	21.5 *	OH	20.8 *	AK	21.2	MD	21.9 *	NV	21.2 *
28	DC	30	DE	21.4	TN	20.8 *	MI	21.2 *	OH	21.9 *	DE	21.0
29	GA	30 *	ID	21.4 *	WV	20.8 *	ID	21.1	CA	21.8	NJ	21.0 *
											U.S.	20.9
30	TX	29	MD	21.4 *	AR	20.7	RI	21.1 *	MI	21.8 *	MD	20.9
31	NV	27	ND	21.4 *	DE	20.7 *	MO	21.0	RI	21.8 *	AK	20.8
32	AK	25	RI	21.2	MI	20.7 *	UT	21.0 *	AK	21.7	CA	20.8 *
			U.S.	21.1					U.S.	21.4		
33	IN	20	AK	21.1	WY	20.7 *	VA	21.0 *	ND	21.6	RI	20.7
					U.S.	20.6						
34	VT	19	VA	21.1 *	ID	20.6	WY	21.0 *	VA	21.4 *	VA	20.7 *
							U.S.	20.8				
35	AZ	18	TN	20.7	VA	20.6 *	NC	20.9	WV	21.2	KY	20.5
36	HI	17	AR	20.6	ND	20.5	TX	20.6	KY	21.1	WV	20.5 *
37	NY	17 *	KY	20.6 *	AL	20.3	FL	20.3	OK	21.1 *	CO	20.4
38	VA	15	WV	20.6 *	LA	20.3 *	IL	20.3 *	TN	21.1 *	IL	20.4 *
39	WA	15 *	IL	20.5	OK	20.3 *	GA	20.1	AR	20.9	OK	20.4 *
40	CA	14	NC	20.5 *	IL	20.2	AR	19.9	FL	20.9 *	AR	20.3
41	NC	14 *	OK	20.5 *	KY	20.2 *	CO	19.9 *	NC	20.9 *	TN	20.3 *
42	MA	13	CO	20.3	AK	20.0	KY	19.9 *	CO	20.8	TX	20.3 *
43	OR	13 *	FL	20.3 *	GA	19.8	TN	19.9 *	NM	20.7	NC	20.2
44	CT	12	TX	20.3 *	CO	19.7	OK	19.7	AL	20.6	AL	20.1
45	MD	12 *	AL	20.2	FL	19.6	NM	19.6	IL	20.6 *	NM	20.1 *
46	NH	12 *	GA	20.2 *	NC	19.6 *	SC	19.6 *	GA	20.5	GA	20.0
47	ME	10	LA	20.1	TX	19.4	WV	19.6 *	TX	20.5 *	FL	19.9
48	PA	9	NM	20.1 *	NM	19.3	AL	19.5	LA	20.1	LA	19.9 *
49	NJ	8	SC	19.5	MS	19.1	LA	19.4	SC	19.7	SC	19.4
50	RI	8 *	MS	18.8	SC	18.9	DC	18.4	MS	19.1	MS	18.7
51	DE	5	DC	18.4	DC	17.7	MS	18.0	DC	18.9	DC	18.0

Note: \*State ties for the same rank as the state above it; for example, 76 percent of high school graduates in Kentucky and Nebraska participated in the ACT, so Kentucky and Nebraska tie for 7<sup>th</sup> place among all states. Another example is a tie between Kentucky, Arkansas, Colorado, and Tennessee for 40<sup>th</sup> place in terms of the average ACT math score. Since participation rates vary widely and the pool of test takers differs across states, average scores are not comparable across all states; comparability is better between two states with similar participation rates.

Source: ACT, Inc. 2006 Average ACT Scores by State.

## College Board

### *Advanced Placement*

#### Background

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The College Board is a not-for-profit membership association composed of approximately 5,200 schools, colleges, universities, and other educational organizations. It is best known for the Advanced Placement program (AP) and the SAT.

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AP courses and exams provide high school students with early access to college-level learning in 37 subject areas.

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One in seven (14.8 percent) of the nation's high school students took an AP exam and scored 3 or higher in 2006. Kentucky's percentage is 9.4 percent, placing it 35<sup>th</sup> among all states. Kentucky ranks 23<sup>rd</sup> for improvement between 2000 and 2006.

Founded in 1900, the College Board is a not-for-profit membership association composed of approximately 5,200 schools, colleges, universities, and other educational organizations. With a mission “to connect students to college success and opportunity,” the College Board assists students and their parents, high schools, and colleges with college admissions, guidance, assessment, financial aid, enrollment, and teaching and learning (College Board. *About Us*). Its best-known programs are the Advanced Placement program (AP) and the SAT.

AP courses and exams provide high school students with early access to college-level learning in 37 subject areas. The College Board collaborates with colleges and universities with the common goal of creating assessments, training teachers, and developing AP curriculum of high academic intensity and quality that will enable students to meet the standards for college-level learning. Most colleges and universities in the United States and many other countries use AP exam results in the admissions process to gauge student's ability, and also award college credit or placement into higher-level college courses (College Board. *Advanced*).

The composite score for each AP exam reflects the grade that a student could be expected to earn in a college course. The score is reported on a scale of 1 to 5, corresponding to the letter grades F, D, C, B, and A, respectively. Statistical reports often focus on scores of 3 or higher, since these correspond to passing grades.

The College Board has been reporting AP results by state for several years. Table 3.3, taken from the most recent report, shows that about one in seven (14.8 percent) of the nation's high school students took an AP exam and scored 3 or higher in 2006. In Kentucky, the percentage was 9.4 percent, placing Kentucky 35<sup>th</sup>. Kentucky is ranked 23<sup>rd</sup> with respect to improvement in the percent of students earning a passing score between 2000 and 2006.

**Table 3.3**  
**College Board, Percentage of All High School Students**  
**Scoring 3 or Higher on an AP Exam: 2000 and 2006**

Rank	High School Class of 2000		High School Class of 2006		Change 2000-2006	
	State	%	State	%	State	%
1	NY	17.9	NY	22.7	MD	7.9
2	UT	17.4	MD	22.0	DE	6.9
3	VA	15.9	UT	20.8	NC	6.7
4	CA	15.0	VA	20.7	WA	6.5
5	MA	14.5	CA	20.1	FL	6.1
6	MD	14.1	MA	19.8	CT	5.8
7	CT	13.6	FL	19.6	CO	5.7
8	FL	13.5	CT	19.4	AR	5.5
9	NJ	12.9	NC	18.0	MA	5.3
10	CO	12.2	CO	17.9	WI	5.3 *
11	VT	11.5	NJ	16.6	IL	5.2
12	NC	11.3	VT	16.3	CA	5.1
13	WI	10.5	WI	15.8	GA	5.1 *
	U.S.	10.2				
14	ME	10.1	IL	15.1	NY	4.8
15	AK	10.1 *	GA	14.8	VA	4.8 *
			U.S.	14.8		
16	SC	10.0	TX	14.6	VT	4.8 *
17	IL	9.9	DE	14.5	TX	4.7
					U.S.	4.6
18	TX	9.9 *	ME	14.4	NH	4.4
19	GA	9.7	WA	14.1	ME	4.3
20	NH	9.2	NH	13.6	MN	4.3 *
21	NV	9.1	NV	13.3	NV	4.2
22	MI	8.8	AK	12.6	OK	4.2 *
23	PA	8.3	SC	12.5	KY	3.9
24	MN	8.1	MN	12.4	NJ	3.7
25	DE	7.6	MI	12.2	SD	3.5
26	WA	7.6 *	PA	11.1	UT	3.4
27	AZ	7.2	OH	10.5	MI	3.4 *
28	OH	7.1	OR	10.4	OH	3.4 *
29	OR	7.1 *	MT	10.0	OR	3.3
30	RI	6.9	AR	9.8	TN	3.3 *
31	MT	6.8	ID	9.7	KS	3.3 *
32	DC	6.6	OK	9.6	MT	3.2
33	ID	6.5	DC	9.6 *	ID	3.2 *
34	TN	6.2	TN	9.5	IN	3.2 *
35	NM	6.1	KY	9.4	DC	3.0
36	IN	6.0	SD	9.4 *	NM	2.9
37	SD	5.9	AZ	9.4 *	IA	2.9 *
38	HI	5.8	IN	9.2	PA	2.8

Continued on next page.

**Table 3.3 continued**

Rank	High School Class of 2000		High School Class of 2006		Change 2000-2006	
	State	%	State	%	State	%
39	KY	5.5	NM	9.0	WY	2.8 *
40	OK	5.4	RI	8.4	MO	2.6
41	IA	4.9	IA	7.8	NE	2.6 *
42	WV	4.6	KS	7.7	AK	2.5
43	KS	4.4	HI	7.6	SC	2.5 *
44	ND	4.4 *	ND	6.8	ND	2.4
45	AR	4.3	WY	6.6	AZ	2.2
46	AL	3.9	WV	6.4	HI	1.8
47	WY	3.8	MO	6.3	WV	1.8 *
48	MO	3.7	NE	5.8	AL	1.8 *
49	NE	3.2	AL	5.7	RI	1.5
50	MS	2.3	MS	3.5	MS	1.2
51	LA	1.9	LA	2.3	LA	0.4

Note: \*State ties for the same rank as the state above it; for example, in 2006, Kentucky tied with South Dakota and Arizona for a rank of 35<sup>th</sup> because in all three states, 9.4 percent of students scored 3 or higher on an AP exam.

Source: College Board. *Advanced Placement Report to the Nation 2007 7*. Copyright (c) 2007 The College Board, www.collegeboard.com. Reproduced with permission.

## College Board *SAT Reasoning Test*

### Background

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The SAT Reasoning Test has its origins in a test developed in the 1920s by Robert Yerkes, a leading member of the intelligence quotient, or IQ, testing movement.

The SAT has its origins in a test developed for the U.S Army in the 1920s by Robert Yerkes, a leading member of the intelligence quotient, or IQ, testing movement. In 1933, Harvard began using a revised version of the test to expand beyond upper-class boarding schools, identifying and offering scholarships to gifted students from disadvantaged backgrounds. Harvard convinced other members of the College Board to use the exam, praising its ability to measure pure intelligence regardless of the test taker's access to quality education (Public Broadcasting Company).

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The SAT has changed over the years. Recently, the College Board expanded the critical reading section and added third-year college preparatory math and a new writing section.

The SAT has changed over the decades, with new developments reflected in name changes, from the Army Alpha to the Scholastic Aptitude Test to the Scholastic Achievement Test One: Reasoning Test, and to the SAT Reasoning Test. Recently, the College Board expanded the critical reading section and added third-year college preparatory math and a new writing section. The goals of these changes were “to better reflect what students are learning in high school and to include writing, which is an important skill for success in college and beyond.” The new SAT was administered for the first time in March 2005 for the class of 2006 (College Board. “Frequently”).

The SAT measures “critical reading, mathematical reasoning, and writing skills that students have developed over time and that they need to be successful in college” (College Board. “SAT Program”). SAT scores are intended to supplement the secondary school record and help college admission officers put local data—such as course work, grades, and class rank—in a national perspective.

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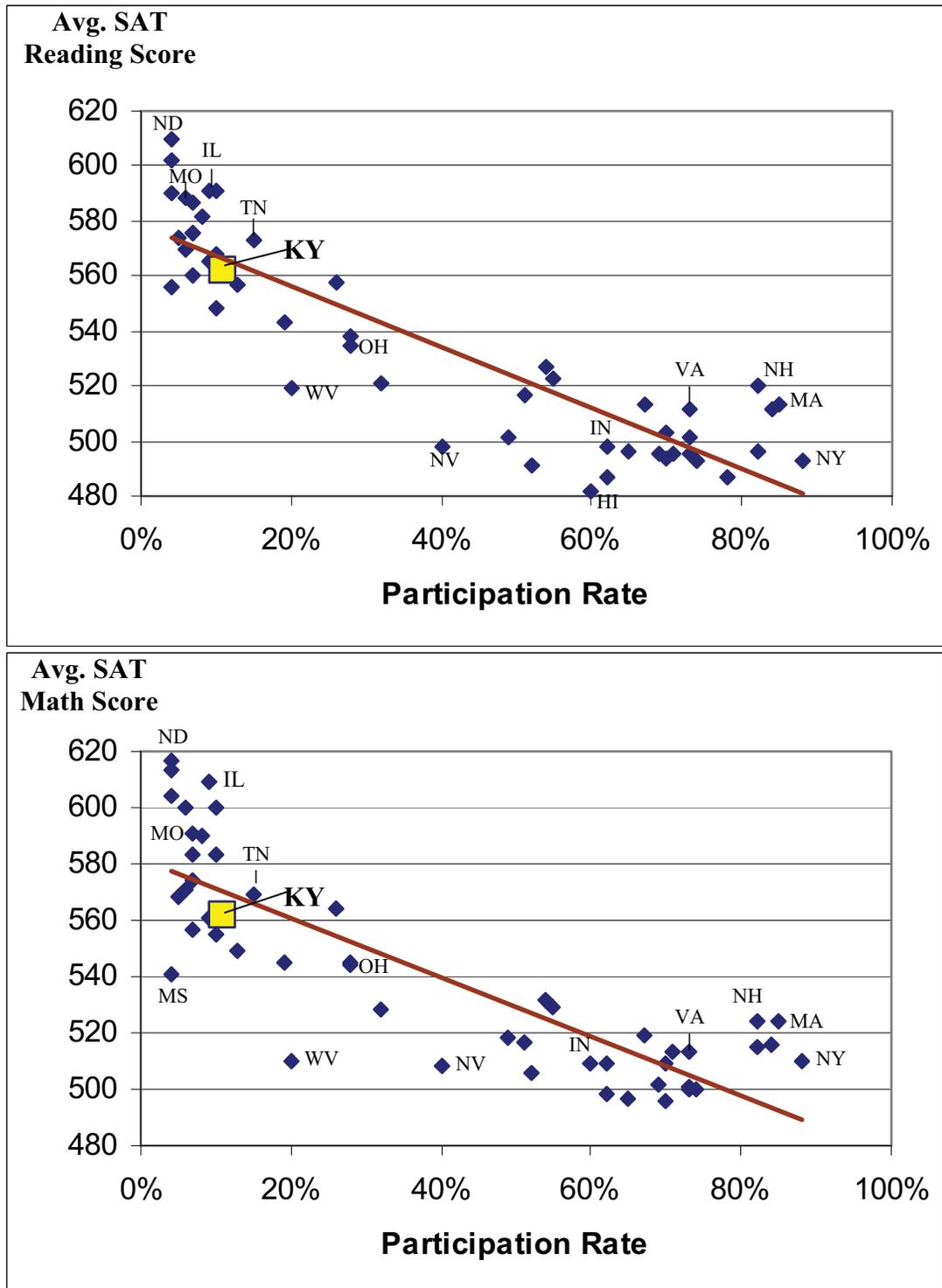
As is true of average ACT composite scores, average SAT scores are lower in states with higher participation rates.

As is true of average ACT composite scores, average SAT scores are lower in states with higher participation rates. In fact, this relationship is far stronger for the SAT than for the ACT, as illustrated in Figure 3.B. The lines in Figure 3.B are generated by a statistical analysis, illustrating the relationship between participation and scores. The downward slope of the lines means that as participation increases, average scores decrease.<sup>6</sup>

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<sup>6</sup> The correlation between the participation rate and average scores is -0.89 for reading and -0.85 for math.

**Figure 3.B**  
**Average SAT Reading and Math Scores by Participation Rate: 2006**



Note: The large, light-colored squares represent Kentucky. Small diamonds represent other states.  
Source: Staff compilation based on data from College Board. *2006 College-Bound Seniors* Table 3.

**SAT Scores and Participation Rates, 2006**

As is true of average ACT scores, average SAT scores are not comparable across all states since participation rates vary widely. Comparability is better among states with similar participation rates.

The College Board releases annual reports on the average SAT scores and participation rates by state, shown in Table 3.4. Like the earlier table of ACT scores, this table lists SAT scores in order of participation rate. Participation rates vary widely, and the pool of test takers is different in each state; therefore, average scores are not comparable across all states. Comparability is better among states with similar participation rates.

The percentage of Kentucky students who take the SAT is small—only 11 percent, in contrast to the 76 percent who take the ACT. Kentucky’s average scores are high, but this small, self-selected group is not representative of all of Kentucky’s students.

**Table 3.4**  
**College Board, Percent of High School Graduates**  
**Participating in SAT and Average SAT Scores: 2006**

Rank	Participation		Reading		Math		Writing	
	State	%	State	Score	State	Score	State	Score
1	NY	88	ND	610	ND	617	IA	591
2	MA	85	IA	602	IA	613	ND	588
3	CT	84	MN	591	IL	609	IL	586
4	NH	82	IL	591 *	SD	604	MO	582
4	NJ	82 *	SD	590	MN	600	SD	578
6	DC	78	WI	588	WI	600 *	WI	577
7	PA	74	MO	587	MO	591	MN	574
8	VA	73	KS	582	KS	590	TN	572
8	ME	73 *	NE	576	MI	583	LA	571
8	DE	73 *	OK	576 *	NE	583 *	AR	567
11	NC	71	AR	574	OK	574	KS	566
12	MD	70	TN	573	LA	571	NE	566 *
12	GA	70 *	LA	570	TN	569	AL	565
14	RI	69	MI	568	AR	568	OK	563
15	VT	67	AL	565	CO	564	MS	562
16	FL	65	KY	562	KY	562	KY	555
17	IN	62	UT	560	AL	561	MI	555 *
17	SC	62 *	CO	558	UT	557	UT	550
19	HI	60	NM	557	WY	555	CO	548
20	OR	55	MS	556	NM	549	NM	543
21	WA	54	WY	548	MT	545	WY	537
22	TX	52	ID	543	ID	545 *	ID	525
23	AK	51	MT	538	OH	544	MT	524
24	CA	49	OH	535	MS	541	OH	521
	U.S.	48						
25	NV	40	WA	527	WA	532	WV	515

Continued on next page.

Table 3.4 continued

Rank	Participation		Reading		Math		Writing	
	State	%	State	Score	State	Score	State	Score
26	AZ	32	OR	523	OR	529	CT	511
27	MT	28	AZ	521	AZ	528	WA	511 *
27	OH	28 *	NH	520	MA	524	MA	510
29	CO	26	WV	519	NH	524 *	NH	509
30	WV	20	AK	517	VT	519	AZ	507
					U.S.	518		
31	ID	19	MA	513	CA	518	OR	503
32	TN	15	VT	513 *	AK	517	VT	502
33	NM	13	CT	512	CT	516	CA	501
34	KY	11	VA	512 *	NJ	515	VA	500
			U.S.	503				
35	MN	10	MD	503	VA	513	MD	499
							U.S.	497
35	MI	10 *	ME	501	NC	513 *	NJ	496
35	WY	10 *	CA	501 *	NY	510	AK	493
38	IL	9	IN	498	WV	510 *	ME	491
38	AL	9 *	NV	498 *	MD	509	RI	490
40	KS	8	NJ	496	IN	509 *	GA	487
41	MO	7	FL	496 *	HI	509 *	TX	487 *
41	NE	7 *	DE	495	NV	508	IN	486
41	OK	7 *	NC	495 *	TX	506	NC	485
41	UT	7 *	RI	495 *	RI	502	DE	484
45	WI	6	GA	494	ME	501	NY	483
45	LA	6 *	NY	493	PA	500	PA	483 *
47	AR	5	PA	493 *	DE	500 *	DC	482
48	ND	4	TX	491	SC	498	NV	481
48	IA	4 *	DC	487	FL	497	FL	480
48	SD	4 *	SC	487 *	GA	496	SC	480 *
48	MS	4 *	HI	482	DC	472	HI	472

Note: \*State ties for the same rank as the state above it; for example, on the writing portion of the SAT, Kentucky and Michigan are tied for a rank of 16<sup>th</sup> because both have average scores of 555. Since participation rates vary widely and the pool of test takers is differs across states, average scores are not comparable across all states; comparability is better between two states with similar participation rates, but even in this case, there is no guarantee that the two pools of test takers are comparable.

Source: College Board. 2006 *College-Bound-Seniors* Table 3. Copyright (c) 2006-2007 The College Board, www.collegeboard.com. Reproduced with permission.

## **U.S. Department of Education** *National Assessment of Educational Progress*

### **Background**

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The National Assessment of Educational Progress is the only nationally representative and continuing assessment of American students' performance in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts.

The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of American students' performance in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts (U.S. Dept. of Ed. Natl. Ctr. *NAEP Overview*). Although it has limitations, which are discussed below, NAEP is widely respected due to its history as a national indicator, the quality and care that have gone into its design and development, its ability to assess both content and critical thinking, and the rigor of its standards (Barth; Basken; Pellegrino "Should NAEP"; Standard & Poor's). Some policy makers want to replace the 50 different sets of state standards with one national set of standards based on NAEP (Hoxby; Olson "Standards").

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The National Assessment Governing Board sets policy for NAEP and is responsible for developing the framework and test specifications. Members of this bipartisan group include governors, state legislators, local and state school officials, educators, business representatives, and members of the public.

The head of the National Center for Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board, appointed by the secretary of education but independent of the U.S. Department of Education, sets policy for NAEP and is responsible for developing the framework and test specifications. The Governing Board is a bipartisan group whose members include governors, state legislators, local and state school officials, educators, business representatives, and members of the public.

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In 2003, the No Child Left Behind Act began requiring all states to participate every 2 years in testing reading and mathematics at grades 4 and 8. Until then, participation was voluntary.

The National NAEP, first conducted in 1969, reports on nationally representative samples of students. Since those national samples are not designed to support accurate and representative state-level reporting, the State NAEP was developed in the early 1990s (U.S. Dept. of Ed. Natl. Ctr. "About State NAEP"). Participation was voluntary until 2003, when No Child Left Behind Act provisions began requiring all states to participate every 2 years in testing reading and mathematics at grades 4 and 8.

The National and State NAEP use the same test items and methodology, which are changed as needed, to keep up with shifting educational priorities and advancements in assessment methodology (U.S. Dept. of Ed. Natl. Ctr. "More About").

NAEP scores are not reported for individual students or schools because they are based on a sample of approximately 2,500 students in 100 public schools per grade, per subject in each state.

NAEP scores are not reported for individual students or schools because they are based on a sample of approximately 2,500 students in 100 public schools per grade, per subject in each state. In some states, additional schools were added to ensure representation of unique areas such as the state's only large city or the area in which most minorities are located (U.S. Dept. of Ed. Natl. Ctr. "*How the Samples*").

Because NAEP scores are based on samples of students, the U.S. Department of Education provides statistical significance tests. Statistical tests use unrounded percentages and take into account each state's sample size and variations in scores; therefore, two states with the same average score can have different levels of significance.

Because NAEP scores are based on samples of students, the U.S. Department of Education provides statistical significance tests. In the tables in this compendium, statistical significance is shown in the columns headed "Sig.," in which > indicates states that are significantly better than Kentucky, = indicates states that are not significantly different, and < indicates states that are significantly worse. A statistically significant difference between Kentucky and another state means that there is a high probability (95 percent in this case) that this is a true difference, not a random fluctuation from sampling error. Since statistical tests use unrounded percentages and take into account each state's sample size and variations in scores, two states with the same average score can have different levels of significance.

Beginning in 1990, NAEP reports included not only average test scores but also the percent scoring at basic, proficient, and advanced achievement levels correspond to specified ranges of scores in each subject. A below basic category is also reported but not explicitly defined. Definitions are shown in Table 3.5. Achievement levels are discussed in more detail in the Caveats and Limitations section.

**Table 3.5**  
**National Assessment of Educational Progress**  
**Achievement Level Definitions**

Below Basic	Not defined.
Basic	Partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at the grade tested.
Proficient	Solid academic performance for the grade tested. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real world situations, and analytical skills appropriate to the subject matter.
Advanced	Superior performance.

Source: U.S. Dept. of Ed. Natl. Ctr. "Interpreting."

## Reading

NAEP assesses four aspects of students' reading abilities in three contexts.

NAEP assesses four aspects of students' reading abilities in three contexts. These are described in Table 3.6 below, arranged in order of increasing difficulty for students.

**Table 3.6**  
**Overview of NAEP Reading Assessment**

<b>Aspects of Reading</b>
<ul style="list-style-type: none"> <li>• Forming a general understanding: The reader must consider the text as a whole and provide a global understanding of it.</li> <li>• Developing interpretation: The reader must extend initial impressions to develop a more complete understanding of what was read.</li> <li>• Making reader/text connections: The reader must connect information in the text with knowledge and experience.</li> <li>• Examining content and structure: This requires critically evaluating, comparing and contrasting, and understanding the effect of such features as irony, humor, and organization.</li> </ul>
<b>Contexts</b>
<ul style="list-style-type: none"> <li>• Reading for literary experience: Readers explore events, characters, themes, settings, plots, actions, and the language of literary works by reading novels, short stories, poems, plays, legends, biographies, myths, and folktales.</li> <li>• Reading for information: Readers gain information to understand the world by reading materials such as magazines, newspapers, textbooks, essays, and speeches.</li> <li>• Reading to perform a task: Readers apply what they learn from reading materials such as bus or train schedules, directions for repairs or games, classroom procedures, tax forms (grade 12), maps, and so on. This is not assessed in grade 4.</li> </ul>

Source: U.S. Dept. of Ed. Natl. Ctr. "Reading."

Results of the 2005 NAEP Reading tests for grades 4 and 8 are summarized in Table 3.7. With 31 percent of grade 4 students found to be proficient, Kentucky ranks 28<sup>th</sup>. However, many state differences are not statistically significant. Almost half of the other states were not significantly different from Kentucky.<sup>7</sup> These states ranged from 27 to 34 percent proficient. Putting the results in another way, 13 states were found to be significantly better than Kentucky and 14 states were significantly worse.

<sup>7</sup> Two states with the same proficiency level may not have the same statistical significance level because each time a state is compared to Kentucky, the statistical test takes into account that state's sample size and variation in scores. A larger sample size or more homogeneous data in a state help to boost the certainty that a difference is not due to random sampling error.

Similarly, 31 percent of grade 8 students were deemed proficient, putting Kentucky in a three-way tie for 24<sup>th</sup> place. However, there are no significant differences between Kentucky and 17 other states, which ranged from 27 to 35 percent proficient. Fifteen states were significantly better and 18 states were significantly worse than Kentucky.

**Table 3.7**  
**Percent of Students At or Above Proficient on**  
**NAEP Reading/Language Arts Assessment: 2005**

Rank	Grade 4			Grade 8		
	State	%	Sig.	State	%	Sig.
1	MA	44	>	MA	44	>
2	NH	39	>	ME	38	>
3	VT	39 *	>	NH	38 *	>
4	CT	38	>	NJ	38 *	>
5	MN	38 *	>	MN	37	>
6	CO	37	>	MT	37 *	>
7	NJ	37 *	>	ND	37 *	>
8	VA	37 *	>	VT	37 *	>
9	MT	36	>	OH	36	>
10	PA	36 *	>	PA	36 *	>
11	WA	36 *	>	VA	36 *	>
12	ME	35	>	WY	36 *	>
13	ND	35 *	>	KS	35	>
14	DE	34	=	NE	35 *	=
15	NE	34 *	=	SD	35 *	>
16	OH	34 *	=	WI	35 *	>
17	UT	34 *	=	CT	34	=
18	WY	34 *	=	IA	34 *	=
19	ID	33	=	WA	34 *	=
20	IA	33 *	=	NY	33	=
21	MO	33 *	=	OR	33 *	=
22	NY	33 *	=	CO	32	=
23	SD	33 *	=	ID	32 *	=
24	WI	33 *	=	IL	31	=
25	KS	32	=	KY	31 *	
26	MD	32 *	=	MO	31 *	=
27	MI	32 *	=	DE	30	=
28	KY	31		MD	30 *	=
29	AR	30	=	RI	29	=
30	FL	30 *	=	UT	29 *	=
				U.S.	29	=
31	IN	30 *	=	IN	28	=
32	RI	30 *	=	MI	28 *	=
	U.S.	30	=			

Continued on next page.

**Table 3.7 continued**

Rank	Grade 4			Grade 8		
	State	%	Sig.	State	%	Sig.
33	IL	29	=	NC	27	=
34	NC	29 *	=	AK	26	<
35	OR	29 *	=	AR	26 *	<
36	TX	29 *	=	TN	26 *	<
37	AK	27	<	TX	26 *	<
38	TN	27 *	=	FL	25	<
39	GA	26	<	GA	25 *	<
40	SC	26 *	<	OK	25 *	<
41	WV	26 *	<	SC	25 *	<
42	OK	25	<	AZ	23	<
43	AZ	24	<	AL	22	<
44	HI	23	<	NV	22 *	<
45	AL	22	<	WV	22 *	<
46	CA	21	<	CA	21	<
47	NV	21 *	<	LA	20	<
48	LA	20	<	NM	19	<
49	NM	20 *	<	HI	18	<
50	MS	18	<	MS	18 *	<
51	DC	11	<	DC	12	<

Notes: \*State ties for the same rank as the state above it; for example, in grade 8 reading, 31 percent of students in Kentucky, Illinois, and Missouri scored at or above the proficient level, putting the states in a three-way tie for a rank of 24<sup>th</sup>. However, testing differences between Kentucky and other states for statistical significance (at the 0.05 level) reveals that Kentucky is essentially on the same level as several other states, indicated by = in the “Sig.” column. The > symbol indicates states whose achievement levels are significantly better than Kentucky’s, and < indicates states whose achievement levels are significantly worse. Significance tests use unrounded percentages and take into account each state’s sample size and variation in scores; therefore, states with the same percentages will not always have the same significance level.

Source: U.S. Dept. of Ed. Natl. Ctr. *NAEP Data*.

## Mathematics

As described in Table 3.8, NAEP math tests assess five content areas at three levels of complexity.

In NAEP math tests, five content areas are tested at three levels of complexity, which are listed in Table 3.8. Each level of complexity includes aspects of knowing and doing mathematics, such as reasoning, performing procedures, understanding concepts, or solving problems. The levels of complexity form an ordered description of the demands an item may make on a student.

**Table 3.8**  
**Overview of NAEP Mathematics Assessment**

Content Areas
<ul style="list-style-type: none"> <li>• Number Properties and Operations</li> <li>• Measurement</li> <li>• Geometry (combined with Measurement in the grade 12 assessment)</li> <li>• Data Analysis and Probability</li> <li>• Algebra</li> </ul>
Levels of Complexity
<ul style="list-style-type: none"> <li>• Low-complexity item may ask a student to recall a property.</li> <li>• Moderate-complexity item may ask a student to make a connection between two properties.</li> <li>• High-complexity item may ask a student to analyze the assumptions made in a mathematical model.</li> </ul>

Source: U.S. Dept. of Ed. Natl. Ctr. "Mathematics."

Kentucky students do not do as well in math as they do in reading, as shown in Table 3.9. Twenty-six percent of grade 4 students are proficient in math, putting Kentucky in a tie with Nevada for 44<sup>th</sup> place. Statistical testing shows that 37 states are significantly better than Kentucky, and only 4 states are significantly worse.

In most states, proficiency is lower in grade 8 than in grade 4. With 23 percent proficiency, Kentucky ties with Georgia for a rank of 38<sup>th</sup>. There are 34 states that have significantly better proficiency levels than Kentucky and 7 that have significantly worse.

**Table 3.9**  
**Percent of Students At or Above Proficient on NAEP**  
**Mathematics Assessment: 2005**

Rank	Grade 4			Grade 8		
	State	%	Sig.	State	%	Sig.
1	MA	49	>	MA	43	>
2	KS	47	>	MN	43 *	>
3	MN	47 *	>	VT	38	>
4	NH	47 *	>	MT	36	>
5	NJ	45	>	NJ	36 *	>
6	VT	44	>	SD	36 *	>
7	OH	43	>	WA	36 *	>
8	WY	43 *	>	WI	36 *	>
9	CT	42	>	CT	35	>
10	WA	42 *	>	NE	35 *	>
11	PA	41	>	NH	35 *	>
12	SD	41 *	>	ND	35 *	>
13	ID	40	>	IA	34	>
14	NC	40 *	>	KS	34 *	>
15	ND	40 *	>	OR	34 *	>
16	TX	40 *	>	OH	33	>
17	WI	40 *	>	VA	33 *	>
18	CO	39	>	CO	32	>
19	ME	39 *	>	NC	32 *	>
20	VA	39 *	>	NY	31	>
21	IN	38	>	PA	31 *	>
22	MD	38 *	>	TX	31 *	>
23	MI	38 *	>	DE	30	>
24	MT	38 *	>	ID	30 *	>
25	FL	37	>	IN	30 *	>
26	IA	37 *	>	ME	30 *	>
27	OR	37 *	>	MD	30 *	>
28	UT	37 *	>	SC	30 *	>
29	DE	36	>	UT	30 *	>
30	NE	36 *	>	AK	29	>
31	NY	36 *	>	IL	29 *	>
32	SC	36 *	>	MI	29 *	>
	U.S.	35	>			
33	AK	34	>	WY	29 *	>
				U.S.	28	>
34	AR	34 *	>	AZ	26	=
35	IL	32	>	FL	26 *	=
36	MO	31	>	MO	26 *	=
37	RI	31 *	>	RI	24	=
38	GA	30	=	GA	23	=
39	OK	29	=	KY	23 *	

Continued on next page.

Table 3.9 continued

Rank	Grade 4			Grade 8		
	State	%	Sig.	State	%	Sig.
40	AZ	28	=	AR	22	=
41	CA	28 *	=	CA	22 *	=
42	TN	28 *	=	NV	21	=
43	HI	27	=	OK	21 *	=
44	KY	26	=	TN	21 *	=
45	NV	26 *	=	HI	18	<
46	WV	25	=	WV	18 *	<
47	LA	24	=	LA	16	<
48	AL	21	<	AL	15	<
49	MS	19	<	MS	14	<
50	NM	19 *	<	NM	14 *	<
51	DC	10	<	DC	7	<

Notes: \*State ties for the same rank as the state above it, for example, in grade 4 math, Kentucky and Nevada are tied for a rank of 44<sup>th</sup> because both states have 26 percent of students who scored at a level deemed proficient or higher. However, testing differences between Kentucky and other states for statistical significance (at the 0.05 level) reveals that Kentucky is essentially on the same level as several other states, indicated by = in the “Sig.” column. The > symbol indicates states whose achievement levels are significantly better than Kentucky’s, and < indicates states whose achievement levels are significantly worse. Significance tests use unrounded percentages and take into account each state’s sample size and variations in scores.

Source: U.S. Dept. of Ed. Natl. Ctr. *NAEP Data*.

## Science

Table 3.10 summarizes the content of the NAEP science assessment, in which each exercise measures one of the elements of knowing and doing within one of the fields of science.

Table 3.10 summarizes the content of the NAEP science assessment, in which each exercise measures one of the elements of knowing and doing within one of the fields of science. In addition, half of the students in each school receive one of three hands-on tasks and related questions. These performance tasks require students to conduct actual experiments using materials provided to them and to record their observations and conclusions in their test booklets by responding to multiple-choice and open-response questions (U.S. Dept. of Ed. Natl. Ctr. “Science”).

**Table 3.10**  
**Overview of NAEP Science Assessment**

<b>Areas of Knowledge and Skills</b>
<ul style="list-style-type: none"> <li>• Knowledge of facts</li> <li>• Ability to integrate this knowledge into larger constructs</li> <li>• Capacity to use the tools, procedures, and reasoning processes of science to develop an increased understanding of the natural world</li> </ul>
<b>Fields of Science</b>
<ul style="list-style-type: none"> <li>• Earth Science</li> <li>• Physical Science</li> <li>• Life Science</li> </ul>
<b>Characteristic Elements of Knowing and Doing Science</b>
<ul style="list-style-type: none"> <li>• Conceptual Understanding</li> <li>• Scientific Investigation</li> <li>• Practical Reasoning</li> </ul>

Source: U.S. Dept. of Ed. Natl. Ctr. "Science."

Conceptual Understanding includes knowledge and skills relating to facts learned in class and in nature; scientific concepts, principles, laws, and theories; procedures for conducting scientific inquiries; application of knowledge in practical tasks; and interactions between science, technology, and society.

Scientific Investigation encompasses abilities to acquire new information, plan investigations, use scientific tools, and communicate results to a variety of audiences.

Practical Reasoning is characterized as the ability to think abstractly, consider hypothetical situations, consider several factors simultaneously, take an objective view, and realize the importance of practical reasoning and experience.

### **2005 NAEP Science Results**

Only 44 states participated in the 2005 NAEP science assessment. Kentucky performed above the national average, as shown in Table 3.11. With 36 percent of grade 4 students demonstrating proficiency, Kentucky's performance is essentially equal to that of first-ranked Virginia, when the statistical significance is considered. Kentucky is 22<sup>nd</sup> with respect to the 31 percent of

grade 8 students who are proficient in science; 13 states are significantly better and 19 are significantly worse.

**Table 3.11**  
**Percent of Students At or Above Proficient on NAEP Science**  
**Assessment: 2005**

Rank	Grade 4			Grade 8		
	State	%	Sig.	State	%	Sig.
1	VA	40	=	ND	43	>
2	MA	38	=	MT	42	>
3	VT	38 *	=	MA	41	>
4	MT	37	=	NH	41 *	>
5	NH	37 *	=	SD	41 *	>
6	KY	36		VT	41 *	>
7	ME	36 *	=	MN	39	>
8	MO	36 *	=	WI	39 *	>
9	ND	36 *	=	WY	37	>
10	OH	35	=	ID	36	>
11	SD	35 *	=	CO	35	=
12	WI	35 *	=	MI	35 *	>
13	CT	33	=	OH	35 *	>
14	MN	33 *	=	VA	35 *	=
15	UT	33 *	=	ME	34	>
16	CO	32	=	CT	33	=
17	NJ	32 *	<	MO	33 *	=
18	WY	32 *	=	NJ	33 *	=
19	MI	30	<	UT	33 *	=
20	ID	29	<	WA	33 *	=
21	WA	28	<	OR	32	=
	U.S.	27	<			
22	DE	27	<	KY	31	
23	IL	27 *	<	DE	29	=
24	IN	27 *	<	IN	29 *	=
				U.S.	27	<
25	MD	27 *	<	IL	27	=
26	FL	26	<	MD	26	<
27	OR	26 *	<	RI	26 *	<
28	TN	26 *	<	GA	25	<
29	GA	25	<	OK	25 *	<
30	NC	25 *	<	TN	25 *	<
31	OK	25 *	<	AR	23	<
32	SC	25 *	<	SC	23 *	<
33	TX	25 *	<	TX	23 *	<
34	AR	24	<	WV	23 *	<
35	WV	24 *	<	NC	22	<

Continued on next page.

**Table 3.11 continued**

Rank	Grade 4			Grade 8		
	State	%	Sig.	State	%	Sig.
36	RI	23	<	FL	21	<
37	AL	21	<	AZ	20	<
38	LA	20	<	AL	19	<
39	HI	19	<	LA	19 *	<
40	AZ	18	<	NV	19 *	<
41	NM	18 *	<	CA	18	<
42	CA	17	<	NM	18 *	<
43	NV	17 *	<	HI	15	<
44	MS	12	<	MS	14	<

Notes: \*State ties for the same rank as the state above it. For example, in grade 4 science, 36 percent of students in Kentucky, Maine, Missouri, and North Dakota scored at or above the level deemed proficient; therefore, the four states are tied for a rank of 5<sup>th</sup>. However, testing differences between Kentucky and other states for statistical significance (at the 0.05 level) reveals that Kentucky is essentially on the same level as several other states, indicated by = in the “Sig.” column. The > symbol indicates states whose achievement levels are significantly better than Kentucky’s, and < indicates states whose achievement levels are significantly worse. Significance tests used unrounded percentages and took into account each state’s sample size and variation in scores. Source: U.S. Dept. of Ed. Natl. Ctr. *NAEP Data*.

When policy makers and others examine NAEP test results, it can be difficult to know how to interpret the results, particularly if they are substantially different from the results of states’ own tests. The following section summarizes the limitations and major issues surrounding NAEP. This discussion is intended to assist readers in understanding important criticisms, caveats, strengths, and weaknesses of the NAEP tests.

### Caveats and Limitations

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NAEP results are subject to sampling error, a limited view of factors that may impact achievement, and definitions of proficiency that are still being used on a trial basis.

Despite the wide respect that NAEP garners, it has flaws and limitations, many of which are pointed out in NCES publications.<sup>8</sup> NAEP results are subject to sampling error, a limited view of factors that may impact achievement, and definitions of proficiency that are still being used on a trial basis (U.S. Dept. of Ed. Natl. Ctr. “Interpreting”).

**Sampling Error.** NAEP average scores and percentages are estimates, based on representative samples of students rather than on the entire population of students, so they are subject to sampling

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<sup>8</sup> It should be noted that National Assessment of Educational Progress might be more vulnerable to criticism than other tests because more detailed information about NAEP is available.

error. Differences should be tested for statistical significance. In addition, as is true for every test, the test items represent only a sample of the many questions that could have been asked.

**Cause-and-Effect Inferences.** When interpreting any assessment, including NAEP, conclusions about what causes differences in achievement scores should be made with caution. Many socioeconomic and educational factors work together in complex ways to impact performance. A specific weakness of NAEP is that it tends to exempt more students with disabilities and language proficiency problems than state tests do (Standard & Poor's 4).

**Performance/Achievement Levels.** The basic, proficient, and advanced achievement levels are intended to be more useful than numeric scores, but they should be interpreted with caution (U.S. Dept. of Ed. Natl. Ctr. "The Status"). By law, they "shall be used on a trial basis until the Commissioner for Education Statistics determines, as a result of an evaluation under subsection (f), that such levels are reasonable, valid, and informative to the public" (Public Law 107-110—Jan. 8, 2002, 115 Stat. 1903).

For the first two decades of NAEP's existence, results were reported only as numeric scores. Concerned that these scores were difficult to interpret, Congress voted in 1988 to require the development of "appropriate achievement goals" (Public Law 100-297). Controversy has surrounded the creation of achievement levels from the outset. There are many possible approaches to defining and setting achievement standards, and there is little consensus as to which approach is best, or even what achievement standards are (Vinovskis 41, 84; U.S. General). Congressionally mandated evaluations by such organizations as the National Academy of Education, the Government Accountability Office, and the National Academy of Sciences have found a number of technical flaws that they believe have not been fully addressed (Shepard; U.S. Government; and Pellegrino *Grading*).

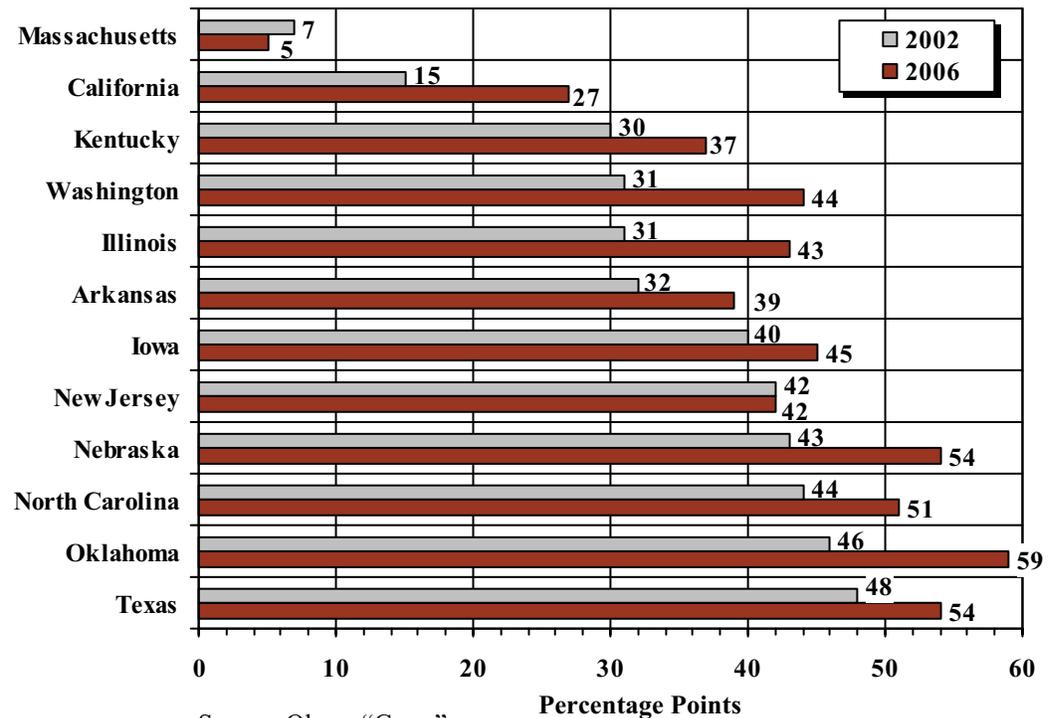
One concern is that the standards that define proficiency are set unreasonably high, a charge with which many testing critics agree (U.S. General; Rothstein; Pellegrino "Should NAEP"). Two recent studies suggest that even countries that score high on the Trends in International Mathematics and Science Study would show low proficiency levels on the NAEP science test (Phillips 9; Rothstein 32).

### NAEP Compared to State Assessments

NAEP consistently reports fewer proficient students than do the assessments that individual states design, administer, and report.

Further evidence that NAEP standards are high, whether appropriately or not, is the fact that NAEP consistently reports fewer proficient students than do the assessments that individual states design, administer, and report. The discrepancies vary greatly by state and appear to be growing over time (Cary; Peterson; Fuller *Diminishing and Is the No Child*). For example, a recent study by researchers at the University of California at Berkeley, reported in *Education Week*, found widening disparities for Kentucky and several other states, as shown in Figure 3.C (Olson. “Gaps”).

**Figure 3.C**  
**Percent Proficient on State’s Own Test Minus Percent Proficient on NAEP,**  
**Grade 4 Reading: 2002 and 2006**



There are many possible reasons for these discrepancies. Given the complexities of public policy and the education system, several factors could be operating simultaneously, and the mix of factors could be different in every state.

As mentioned earlier, some critics say NAEP’s cut-off scores for defining proficiency may be unreasonably high. However, others attribute the discrepancies to low state standards and intentional

inflation of performance in order to avoid sanctions from No Child Left Behind (Cary; Peterson; Ravitch; Olson “Gaps”).

At least some of the difference between NAEP and state proficiency levels may reflect true differences in student performance. Many factors, including different test content and higher stakes, could cause students to perform better on state tests than on NAEP (Standard & Poor’s; Barth). By law, state assessments must be aligned with state standards (Public Law 101-110 Sec. 1111(b)(3)(C)(ii)). The curriculum and instruction are customized to the subjects, depth of knowledge, and skills specified by the state standards, which also guide assessments. Thus, a student should perform better on a state’s customized tests.

NAEP has been called a “no stakes” test by Standard & Poor’s. In contrast, the sanctions and rewards associated with some states’ tests can motivate districts, schools, teachers, and students to try harder and to target more resources where needed (Stecher 90-91, 96-97). A number of studies have also found negative impacts of high stakes, which nevertheless would serve to boost students’ performance on state tests. These include districts reassigning their best teachers to the assessed grades, narrowing instruction to subjects and topics that are tested, making classroom instruction more like a test, and spending an excessive amount of time on familiarizing students with the format of the test questions and how to record answers (Stecher 91-97).

## Chapter 4

### State Education Rankings and Comparisons From Independent Organizations

#### Introduction

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This chapter discusses rankings produced by independent organizations, in alphabetical order by publisher.

This chapter presents rankings published by independent organizations—that is, nonprofit or for-profit organizations that are not part of any governmental structure. The rankings are listed below and discussed in alphabetical order by the organizations that publish them.

- Achieve, Inc.: *Closing the Expectations Gap 2006 and 2007*
- Annie E. Casey Foundation: *2006 KIDS COUNT Data Book*
- Education Trust: *The Funding Gap 2006*
- Congressional Quarterly: *Governing Magazine's State and Local Sourcebook 2006*
- Education Projects in Education: *Education Week's Diplomas Count 2006*
- Education Projects in Education: *Education Week's Quality Counts 2007*
- Education Projects in Education: *Education Week's Technology Counts 2007*
- National Center for Public Policy and Higher Education: *Measuring Up 2006*
- National Education Association's *Rankings & Estimates: Rankings of the States 2005 and Estimates of School Statistics 2006*
- National Institute for Early Education Research. *The State of Preschool 2006*

## Achieve, Inc. Closing the Expectations Gap

### Background

Created by governors and business leaders in 1996, Achieve, Inc., describes itself as a “bipartisan, nonprofit organization that helps states raise academic standards, improve assessments and strengthen accountability to prepare all young people for postsecondary education, work and citizenship” (Achieve. *About*).

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Created by governors and business leaders, Achieve, Inc., joined with Education Trust and the Thomas B. Fordham Foundation to form the American Diploma Project, which established benchmarks for the knowledge and skills required for life after high school.

In 2004, Achieve joined with Education Trust and the Thomas B. Fordham Foundation to form the American Diploma Project (ADP), which established benchmarks for the knowledge and skills required to succeed in credit-bearing courses in college and in careers that provide a living wage. Since then, about 29 states, including Kentucky, have joined to form the ADP Network.

Achieve’s board of directors is made up of six governors (three Democrats and three Republicans) and six chief executive officers. Funding sources include the Bill & Melinda Gates Foundation, Boeing, Carnegie, GE, IBM, Intel, Nationwide, Prudential, State Farm, Washington Mutual, and the William and Flora Hewlett Foundation.

### *Closing the Expectations Gap*

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Achieve examines states’ progress in closing the gap between high school expectations and college and work demands.

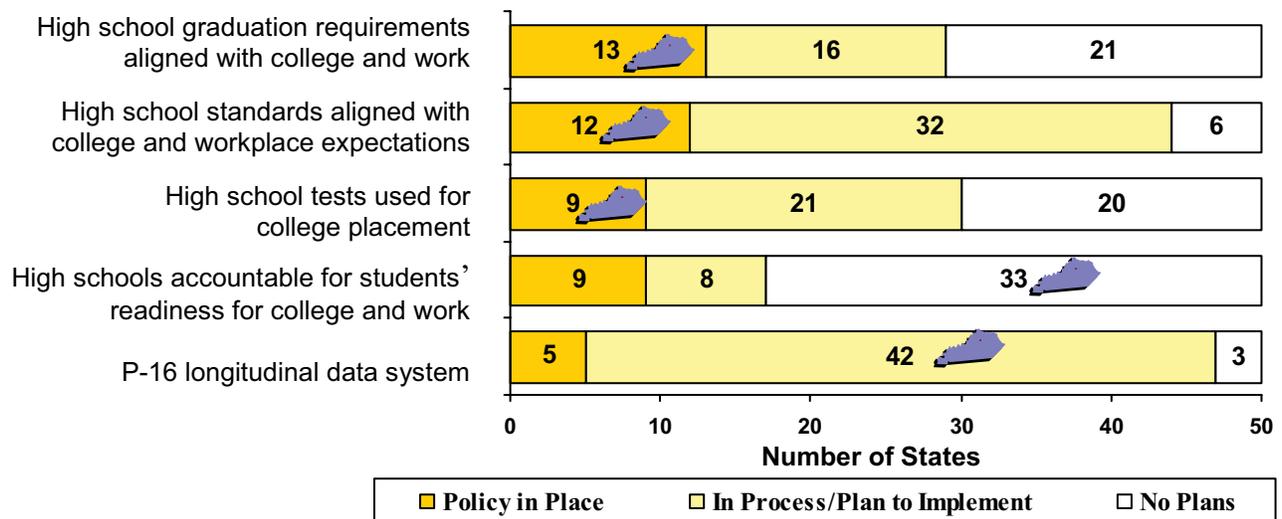
In *Closing the Expectations Gap*, Achieve examines the progress that states are making in closing the gap between high school expectations and what colleges and employers demand.

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Achieve credits Kentucky with implementing three of five recommended policies and making progress on one more. Kentucky is reported as not implementing a plan to hold high schools accountable for students’ college- and work- readiness.

**College and Work-readiness Policies.** Achieve surveys states regarding their progress in implementing five policies for aligning high school academic standards, graduation requirements, assessments, data systems, and accountability with postsecondary education and work expectations. As Figure 4.A illustrates, few states have implemented these policies, but many are progressing toward doing so. No state has implemented all policies, but several are in the process of doing so. Of the five policy areas, Achieve credits Kentucky with implementing three and making progress on one more. Like many states, Kentucky is seen as not having a plan in place to hold high schools accountable for students’ readiness for college and work (*Closing 2007* 15-16).

**Figure 4.A**  
**Achieve Analysis of the Number of States With Policies To Close the Expectations Gap Between High School and College/Workplace: 2007**



Note:  Kentucky state icons indicate where Kentucky currently stands in implementing each policy.

Source: Staff compilation based on Achieve, Inc. *Closing the Expectations Gap 2007* 14-15.

**Students' Progress Through the "Education Pipeline."** The 2006 issue of *Closing the Expectations Gap* ranks states on the proportion of high school freshmen who go on to graduate from high school in 4 years and then earn a college degree within 6 years. Achieve uses 2002 estimates from the National Center for Higher Education Management Systems Information (Achieve. *Closing 2006* 30).

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Kentucky ranks 33<sup>rd</sup>, with an estimated 15 of 100 high school freshmen graduating within 4 years and then earning a college degree within 6 years. The freshman year of high school is when students are at the greatest risk for dropping out.

Table 4.1 ranks all states by the number of students who make it to the end of the pipeline, graduating from college on time. Kentucky ranks 33<sup>rd</sup>. An estimated 15 of 100 high school freshmen finish high school within 4 years and then go on to earn a college degree within 6 years. In most states, including Kentucky, the freshman year of high school is when students are at the greatest risk for dropping out.

**Table 4.1**  
**Achieve Analysis of Education Pipeline Estimates: FY 2002**  
(Sorted and ranked by the percent graduating from college on time)

*Out of 100 high school freshmen (grade 9), the estimated number who...*

State	Graduate From High School on Time	Immediately Enter College	Still Enrolled Sophomore Year	Graduated from College on Time	Rank
Massachusetts	76	52	40	29	1
Iowa	83	54	37	28	2
Pennsylvania	77	47	37	28	
New Hampshire	75	46	35	27	4
Connecticut	75	47	37	26	5
New Jersey	90	60	44	25	
North Dakota	83	57	41	25	6
Minnesota	82	54	38	25	
Wisconsin	79	47	34	25	
Rhode Island	72	40	33	23	10
Nebraska	78	47	33	22	
Maine	76	41	31	22	11
Virginia	74	41	31	22	
South Dakota	78	44	30	21	
Vermont	77	36	28	21	14
Indiana	68	41	31	21	
Delaware	64	38	30	21	
Illinois	72	43	30	20	
Colorado	70	42	29	20	18
Missouri	73	40	27	20	
Wyoming	73	38	23	20	
Maryland	75	45	32	19	
Kansas	75	43	27	19	
Ohio	70	40	29	19	22
California	70	37	25	19	
North Carolina	60	41	29	19	
New York	57	41	31	19	
Michigan	70	41	29	18	28
U.S.	68	40	27	18	
Montana	77	41	27	17	
Utah	83	36	24	17	29
Arizona	69	35	22	17	
Tennessee	61	38	26	16	32
Arkansas	74	42	27	15	
Kentucky	65	39	26	15	33
Oregon	69	33	23	15	
Washington	68	30	22	15	
Idaho	77	34	22	14	
West Virginia	71	34	24	14	37
Florida	53	32	24	14	
Oklahoma	73	36	23	13	
Texas	64	35	22	13	
Mississippi	58	37	23	13	40
Louisiana	59	33	23	13	
Georgia	56	34	24	13	
South Carolina	49	29	20	13	
Hawaii	65	34	22	12	
Alabama	59	32	22	12	46
Alaska	61	30	not available	12	
New Mexico	60	34	22	10	49
Nevada	62	27	18	10	

Note: States with the same percent of students who graduate from college on time have the same rank.

Source: Achieve *Closing 2006* 30.

**Caveats and Limitations.** Since most states cannot track the progress of individual students over time, the above education pipeline is calculated from groups of students at different points in time. For example, the proportion who graduate from high school on time is estimated by dividing the number of high school graduates in a given year by the number of students in grade 9 who were enrolled 4 years previously. Estimates do not account for high school students who graduate in fewer than or more than 4 years or high school students who transfer to private high schools or out of state (Natl. Ctr. for Higher Education).

## **Annie E. Casey Foundation**

### ***KIDS COUNT Data Book***

#### **Background**

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Annie E. Casey Foundation created the annual *KIDS COUNT Data Book* to encourage policies and reforms to help vulnerable children and families.

The Annie E. Casey Foundation makes grants to states, cities, and communities “to foster public policies, human service reforms, and community supports that more effectively meet the needs of today’s vulnerable children and families.” Jim Casey, one of the founders of United Parcel Service, and his siblings established this private charitable foundation in 1948 and named it in honor of their mother (Annie E Casey. “Mission”).

In addition to conducting research at the national level, the foundation provides funding and technical assistance for a network of state-level projects to provide communities with detailed local information on the status of children.

Since 1990, the foundation has released an annually updated *KIDS COUNT Data Book* on the well-being of American children. Although the data and rankings from this publication do not report directly on education, they are included in this compendium because child well-being directly relates to educational success and can affect the performance of a state educational system. Even though the education system has little or no control over these factors, they have an important impact on a child’s ability to benefit from education.

In addition to reporting the status and trends of 10 key indicators, each edition highlights a special issue, such as helping vulnerable older youth make successful transitions to adulthood; understanding how and why families in poor neighborhoods pay disproportionately higher costs for basic goods and services; and exploring new approaches to help persistently unemployed parents join the workforce. The 2006 issue of *KIDS COUNT* focuses on improving early childhood development opportunities, especially childcare, in order to help low-income children start school healthy and prepared to learn and succeed.

#### ***KIDS COUNT* Key Indicators**

*KIDS COUNT* draws 10 key indicators and other data from NCES, the Centers for Disease Control and Prevention, and the Census Bureau. The key indicators are summarized in Table 4.2. Using these indicators, an overall rank was created in the following manner:

- First, values for each of the 10 indicators were standardized. Standardizing is a common technique for converting different types of measures into one common scale; it is done by subtracting the average for all states from each state’s value and then dividing by the standard deviation (a measure of how spread out states are for that indicator).
- Those standard scores were summed to create a total standard score for each state. All indicators were given the same weight in calculating the total standard score.
- Finally, states were ranked on the total standard score in sequential order from highest to lowest. Unfortunately, *KIDS COUNT* does not report the total standard score for each state, which would show how far apart the states are.

The below-average well-being of Kentucky’s children suggests that students are less able to benefit from educational opportunities, as they struggle with lower levels of financial, physical, and emotional security.

Consistent with the low rankings shown in Table 4.2, Kentucky is ranked 42 overall, as shown in Table 4.3. This reflects the fact that the well-being of Kentucky’s children is below average for almost every key indicator. It suggests that Kentucky’s students are less able to benefit from educational opportunities than are students in most states, as they struggle with poorer health and lower levels of financial, physical, and emotional security.

**Table 4.2**  
**2006 KIDS COUNT Data Book: Summary of Key Indicators of Child Well-being Used To Compute Overall State Rank**

Key Indicator	KY	U.S.	KY Rank
Percent of live births with low birth weight (under 5.5 pounds), 2003 <sup>1</sup>	8.7	7.9	38
Infant mortality rate (deaths per 1,000 live births), 2003 <sup>1</sup>	6.9	6.9	27
Child death rate (deaths per 100,000 children ages 1-14), 2003 <sup>2</sup>	25.0	21.0	36
Teen death rate (deaths per 100,000 teens 15-19), 2003 <sup>2</sup>	75.0	66.0	31
Teen birth rate (births to 15-19-year-olds per 1,000 females age 15-19), 2003 <sup>2</sup>	50.0	42.0	38
Percent of teens age 16-19 who are high school dropouts, 2004 <sup>1</sup>	10.0	8.0	41
Percent of teens age 16-19 not attending school and not working, 2004 <sup>1</sup>	11.0	9.0	42
Percent of children with no parent working full time, year-round, 2004 <sup>1</sup>	38.0	33.0	45
Percent of children in poverty, 2004 <sup>1</sup>	25.0	18.0	46
Percent of children in single-parent families, 2004 <sup>1</sup>	30.0	31.0	25

Notes: Poverty rates do not take into account noncash benefits or geographic differences in the cost of living. Origins of data that appear in *KIDS COUNT*: <sup>1</sup> U.S. Centers for Disease Control and Prevention, Natl. Ctr. for Health Statistics; <sup>2</sup> Death rates from U.S. Centers for Disease Control and Prevention, and population data from U.S. Census Bureau.

Source: Annie E. Casey. *2006 KIDS COUNT Data Book* 28, 33.

**Table 4.3**  
**2006 KIDS COUNT Data Book**  
**Overall Child Well-being Rank Based on 2003 and 2004 Measures**

Overall Rank	State	Overall Rank	State	Overall Rank	State
1	New Hampshire	18	California	35	Alaska
2	Vermont	19	Virginia	36	Nevada
3	Connecticut	20	Idaho	37	Arizona
4	Minnesota	21	Hawaii	38	West Virginia
5	Iowa	22	New York	39	Texas
6	Utah	23	Maryland	40	Oklahoma
7	New Jersey	24	Illinois	41	North Carolina
8	Nebraska	25	Colorado	42	Kentucky
9	North Dakota	26	Ohio	43	Alabama
10	Massachusetts	27	Michigan	44	Georgia
11	Maine	28	Wyoming	45	Arkansas
12	Kansas	29	Delaware	46	Tennessee
13	Wisconsin	30	Missouri	47	South Carolina
14	South Dakota	31	Rhode Island	48	New Mexico
15	Oregon	32	Indiana	49	Louisiana
16	Pennsylvania	33	Florida	50	Mississippi
17	Washington	34	Montana		

Notes: These rankings are based on the indicators listed in Table 4.2.

Source: Annie E. Casey. 2006 KIDS COUNT Data Book.

## **Congressional Quarterly *Governing Magazine's State & Local Sourcebook***

### **Background**

Established in 1945, Congressional Quarterly Inc. (CQ) provides political journalism in weekly, daily, and real-time reports in print and online. CQ seeks to “advance the quality of reporting about government, helping elected officials and citizens alike understand and improve democracy in the United States.” A private, for-profit organization, CQ is a wholly owned affiliate of the Times Publishing Co., which publishes the *St. Petersburg Times* of Florida. The stock of the publishing company is owned by the Poynter Institute, a nonprofit school for journalists in St. Petersburg named in honor of CQ’s founder, Nelson Poynter (“Mission”).

CQ’s *Governing Magazine* reports on state and local government issues and produces an annual *State and Local Sourcebook* that compares states across a wide range of indicators, including elementary and secondary education spending. *Governing Magazine* has published some state comparisons since 1993; the freestanding *Sourcebook* started in 1997.

In the 2006 *State and Local Sourcebook*, the K-12 education indicators are from the U.S. Census Bureau, the National Education Association, and the U.S. Department of Education.

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*Governing Magazine's Sourcebook* ranks Kentucky low on expenditures per capita and as a percent of personal income.

Table 4.4 reports the *Sourcebook's* rankings for Kentucky and other states. The *Sourcebook* ranks Kentucky 40<sup>th</sup> among all states on expenditures per capita and 31<sup>st</sup> as a percent of personal income.

**Table 4.4**  
**Governing Magazine's 2006 Local and State Sourcebook**  
**K-12 Education Rankings**

Rank	State & Local Spending on Education, FY 2004				Pupil-Teacher ratio, FY 2004 <sup>2</sup>		Spending Per Pupil, FY 2005 <sup>3</sup>		Average Teacher Salary, FY 2005 <sup>3</sup>	
	Per Capita <sup>1</sup>		% of Personal Income <sup>1</sup>		State	Ratio	State	\$	State	\$
	State	\$	State	%						
1	AK	2,504	AK	7.3	VT	11.3	DC	15,073	CT	58,688
2	NJ	2,403	MI	5.9	ME	11.5	NY	12,879	DC	58,456
3	NY	2,209	VT	5.9 *	AL	12.6	CT	11,893	CA	57,876
4	CT	1,981	NJ	5.8	NJ	12.7	VT	11,641	NJ	56,600
5	DC	1,945	NM	5.8 *	ND	12.7 *	NJ	11,502	NY	56,200
6	VT	1,922	NY	5.8 *	VA	13.2	MA	11,322	MI	55,693
7	MI	1,896	TX	5.6	NY	13.3	ME	10,736	IL	55,629
8	WY	1,872	ME	5.5	WY	13.3 *	RI	10,641	MA	54,596
9	MA	1,833	WV	5.5 *	RI	13.4	IL	10,439	RI	53,473
10	MN	1,704	IN	5.4	CT	13.6	DE	10,329	PA	52,700
11	TX	1,692	OH	5.4 *	MA	13.6 *	WY	10,198	AK	52,424
12	ME	1,686	SC	5.4 *	NE	13.6 *	AK	10,042	MD	52,331
13	CA	1,684	WY	5.4 *	SD	13.6 *	WI	9,881	DE	50,869
14	OH	1,680	GA	5.2	NH	13.7	MD	9,762	OR	50,790
15	PA	1,668	WI	5.1	DC	13.8	PA	9,638	OH	48,692
									U.S.	47,750
16	IL	1,663	AR	5.0	IA	13.8 *	OH	9,573	MN	46,906
17	WI	1,638	OR	5.0 *	MO	13.9	NH	9,566	IN	46,851
18	NH	1,623	PA	5.0 *	WV	14.0	WV	9,448	GA	46,526
19	IN	1,618	MS	4.9 *	KS	14.4	MN	9,239	WA	45,712
	U.S.	1,608	U.S.	4.9						
20	DE	1,602	MT	4.9 *	LA	14.4 *	MI	8,909	VA	44,763
21	RI	1,595	CA	4.8	MT	14.4 *	VA	8,847	VT	44,535
22	MD	1,566	IL	4.8 *	AR	14.7	IN	8,734	HI	44,273
							U.S.	8,554		
23	GA	1,544	NE	4.8 *	NM	15.0	GA	8,500	CO	44,161
24	NE	1,513	UT	4.8 *	TX	15.0 *	HI	8,356	NH	43,941
25	NM	1,511	IA	4.7	MS	15.1	SC	8,161	WI	43,466
26	VA	1,504	KS	4.7 *	NC	15.1 *	CO	8,095	NV	43,394
27	OR	1,497	MN	4.7 *	WI	15.1 *	MT	8,025	NC	43,313
28	CO	1,483	RI	4.7 *	DE	15.2	OR	7,913	AZ	42,905
29	SC	1,458	ID	4.6	OH	15.2 *	WA	7,858	SC	42,207
30	IA	1,451	KY	4.6 *	PA	15.2 *	CA	7,815	ID	42,122
31	KS	1,451 *	LA	4.6 *	SC	15.3	KY	7,719	TN	41,527
32	WA	1,447	DE	4.5	GA	15.7	SD	7,636	FL	41,081
33	WV	1,436	ND	4.5 *	TN	15.7 *	NE	7,617	TX	41,009
34	ND	1,416	CT	4.4	MD	15.8	KS	7,558	KY	41,002
					U.S.	15.9				
35	NV	1,384	MA	4.4 *	OK	16.0	LA	7,552	ME	40,940
36	HI	1,375	MO	4.4 *	KY	16.1	IA	7,477	AR	40,495

Continued on next page.

**Table 4.4 continued**

Rank	State & Local Spending on Education, FY 2004				Pupil-Teacher ratio, FY 2004 <sup>2</sup>		Spending Per Pupil, FY 2005 <sup>3</sup>		Average Teacher Salary, FY 2005 <sup>3</sup>	
	Per Capita <sup>1</sup>		% of Personal Income <sup>1</sup>		State	Ratio	State	\$	State	\$
	State	\$	State	%						
37	MO	1,355	NH	4.4 *	MN	16.3	MO	7,452	WY	40,392
38	MT	1,328	OK	4.4 *	HI	16.5	NM	7,227	IA	40,347
39	SD	1,299	AL	4.3	IL	16.5 *	TX	7,140	UT	39,965
40	AR	1,280	HI	4.3 *	CO	16.9	NV	7,098	NE	39,456
41	KY	1,270	VA	4.3 *	IN	16.9 *	FL	7,040	NM	39,328
42	UT	1,266	SD	4.2	AK	17.2	ND	7,033	KS	39,190
43	LA	1,265	AZ	4.1	FL	17.9	AL	6,993	MO	38,971
44	FL	1,259	CO	4.1 *	ID	17.9 *	NC	6,958	LA	38,880
45	ID	1,251	NV	4.1 *	MI	18.1	ID	6,743	AL	38,863
46	OK	1,247	NC	4.1 *	NV	19.0	TN	6,725	MT	38,485
47	AL	1,204	WA	4.1 *	WA	19.3	MS	6,452	WV	38,360
48	NC	1,202	FL	4.0	OR	20.6	OK	6,269	OK	37,141
49	MS	1,198	MD	4.0 *	CA	21.1	AR	6,202	MS	36,590
50	AZ	1,173	DC	3.8	AZ	21.3	AZ	5,474	ND	36,449
51	TN	1,139	TN	3.8 *	UT	22.4	UT	5,245	SD	34,040

Notes: \*State ties for the same rank as the state above it; for example, in Kentucky, Idaho, and Louisiana, 2004 spending as a percent of personal income was 4.6 percent, so all three states tie for 29<sup>th</sup> place. Origins of data that appear in *Sourcebook*: <sup>1</sup> U.S. Census Bureau; <sup>2</sup> U.S. Dept. of Ed.; <sup>3</sup> Natl. Ed. Assoc.

Source: Congressional Quarterly. *Governing Magazine 2006 State and Local Sourcebook* 15-17.

### Caveats and Limitations

The comparability of these indicators is limited due to the exclusion of General Assembly special allocations and School Facilities Construction Commission funding. Per capita spending (spending divided by the total population) is not adjusted for state differences in such factors as the cost of living, the percent of the population that is school age, and the proportion of children enrolled in private schools. Average teacher salaries are not adjusted for geographic cost differences.

Several indicators have factors that reduce their comparability across states. Kentucky's expenditure totals do not include state funding for facilities provided through Kentucky's School Facilities Construction Commission, nor do they include appropriations made by the General Assembly for specific education projects outside the education funding formula. Per capita spending (spending divided by the total population), is not adjusted for state differences in such factors as the cost of living, the percent of the population that is school age, and the proportion of children enrolled in private schools. Average teacher salary is not adjusted for geographic differences in cost of living.

## Education Trust: *The Funding Gap 2006*

### Background

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Education Trust is dedicated to closing achievement gaps that separate low-income students and students of color from other youth.

The American Association for Higher Education established Education Trust in 1990 to encourage colleges and universities to support K-12 reform. Today, Education Trust is an independent nonprofit organization working for “the high achievement of all students at all levels, pre-kindergarten through college, and forever closing the achievement gaps that separate low-income students and students of color from other youth” (Education Trust. *What is*). Education Trust advances this mission through advocacy in policy debates; policy analysis and expert testimony; research and dissemination of data; and assistance to school districts, colleges, and community-based organizations trying to raise student achievement, especially among minority and poor students.

Major funding for Education Trust comes from

- Annie E. Casey Foundation
- Carnegie Corporation of New York
- Bill & Melinda Gates Foundation
- William and Flora Hewlett Foundation
- Ewing Marion Kauffman Foundation
- Walters Johnson Foundation
- The Joyce Foundation
- Lumina Foundation for Education
- MetLife Foundation
- State Farm Companies Foundation
- Washington Mutual Foundation

### *Funding Gap 2006*

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*Funding Gap 2006* uses federal data on per-student revenues to calculate funding gaps between highest- and lowest-poverty districts and highest- and lowest-minority districts. Revenues are adjusted for variations in the costs of goods and services and for the number of special education students enrolled.

*Funding Gap 2006* examines differences in state and local revenues per pupil between districts with relatively high numbers of impoverished or minority students and districts with relatively few impoverished or minority students. To classify districts by poverty, Education Trust ranked them by the percent of students living below the poverty level and then divided them into quartiles. The top 25 percent were the highest-poverty districts and the bottom 25 percent were the lowest-poverty districts. Highest- and lowest- minority districts were identified in a similar way.

In order to achieve better comparability across districts than was done in previous reports, the 2006 report uses a new formula from NCES to adjust for variations among districts in the costs of goods and services. Although the adjustments make the 2006 report less

comparable to previous reports, Education Trust believes it improved the comparability of the data. Revenues are also adjusted for the number of special education students enrolled, recognizing that “districts with disproportionately more students with disabilities have higher costs and, thus, effectively less money to spend” (*The Funding 2006 6*).

The poverty gap is equal to revenues received by the highest-poverty districts minus revenues received by the lowest-poverty districts. As Education Trust interprets its analysis, positive numbers indicate greater funding of districts that need it most, while negative numbers indicate that the neediest districts are at a financial disadvantage. The minority gap is calculated in a similar way, with positive numbers indicating greater funding of districts with the highest minorities and negative numbers indicating less funding.

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Kentucky is reported to be relatively good at ensuring equity for students in poverty and for minority students. Instead of a funding gap, Kentucky’s highest-poverty districts and highest-minority districts receive more money per student than other districts.

As Table 4.5 shows, Kentucky ranks 7<sup>th</sup> and 10<sup>th</sup>, respectively, out of the 49 states for funding to highest-poverty and highest-minority districts relative to the lowest-poverty and lowest-minority districts. The positive numbers indicate that more funds go to the needier districts. In contrast, New York had the largest funding gaps, with the highest-poverty districts receiving an average of \$2,927 less per student than lowest-poverty districts and the highest-minority districts receiving \$2,636 less than the lowest-minority districts.

**Table 4.5**  
**Education Trust Rankings by Equity in Per-pupil State and Local Revenues Between Highest- and Lowest-Poverty Districts and Highest- and Lowest-Minority Districts: 2004**

Rank	State	Per-pupil revenues in lowest-poverty districts minus those in highest-poverty districts (\$)	State	Per-pupil revenues in lowest-minority districts minus per-pupil revenues in highest-minority districts (\$)
1	AK	2,054	AK	4,435
2	NJ	1,069	MA	1,139
3	MN	950	IN	1,096
4	MA	694	NJ	1,087
5	NM	679	OH	942
6	UT	663	MO	662
7	KY	448	MN	623
8	TN	330	DE	353
9	OR	302	WV	290
10	NE	210	KY	274
11	SC	127	GA	271
12	OH	113	AR	253
13	IN	93	VA	239
14	CT	59	SC	206
15	ND	17	TN	202

Continued on next page.

Table 4.5 continued

Rank	State	Per-pupil revenues in lowest-poverty districts minus those in highest-poverty districts (\$)	State	Per-pupil revenues in lowest-minority districts minus per-pupil revenues in highest-minority districts (\$)
16	WA	-110	OR	127
17	IA	-176	LA	111
18	MS	-191	MS	26
19	OK	-213	NM	18
20	ID	-257	FL	-106
21	CA	-259	WA	-225
22	MO	-271	MI	-251
23	GA	-292	NC	-296
24	MV	-297	UT	-311
25	WV	-345	OK	-383
26	DE	-371	IA	-414
27	RI	-394	AL	-437
28	MD	-432	MD	-454
29	VA	-436	NV	-496
30	SD	-438	CA	-499
31	CO	-440	CT	-602
32	FL	-461	VT	-613
33	LA	-481	RI	-639
34	AR	-500	AZ	-680
35	WY	-539	PA	-709
36	ME	-543	ID	-849
36	NC	-543	ME	-874
38	AL	-656	CO	-1,032
39	AZ	-736	WY	-1,041
40	WI	-742	SC	-1,140
41	TX	-757	TX	-1,167
42	KS	-885	U.S.	-1,213
43	VT	-894	WI	-1,270
44	MI	-1,072	ND	-1,290
45	MT	-1,148	NE	-1,374
46	NH	-1,297	IL	-1,524
--	U.S.	-1,307	KS	-1,630
47	PA	-1,511	MT	-1,838
48	IL	-2,355	NH	-2,392
49	NY	-2,927	NY	-2,636

Notes: Positive numbers indicate more funding for highest-poverty or highest-minority districts; negative numbers indicate less funding for highest-poverty or highest-minority districts. Data are adjusted for regional cost differences and the added cost of educating students living in poverty and students with Individualized Education Programs.

Hawaii is not reported because it has only one district.

Source: Education Trust. *Funding Gap 2006 7*.

## Editorial Projects in Education *Education Week's Diplomas Count*

### Background

Editorial Projects in Education Inc. (EPE) publishes materials that cover local, state, and national news and issues pertaining to education from preschool through grade 12. A nonprofit, tax-exempt organization based in Washington, D.C., EPE describes its primary mission as helping to “raise the level of awareness and understanding among professionals and the public of important issues in American education” (*About*).

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The nonprofit organization Editorial Projects in Education Inc. publishes *Education Week* and its special issues *Diplomas Count*, *Quality Counts*, and *Technology Counts*.

EPE publishes *Education Week* as well as *Teacher Magazine*, [edweek.org](http://edweek.org), Agent K-12 Jobs, periodic special reports on a wide range of issues, and books of special interest to educators (*Editorial*).

The EPE Research Center provides research support. It compiles and analyzes data for annual issues of *Diplomas Count*, *Quality Counts*, and *Technology Counts*. The center also integrates measures from those and other EPE publications over time into an online database called *Education Counts (Editorial)*. *Diplomas Count*, the first issue of an annual report on high school graduation policies and rates, is supported by a 4-year, \$2.5 million grant from the Bill & Melinda Gates Foundation.

The report presents graduation rates based on the Cumulative Promotion Index (CPI), which was developed by the director of the EPE Research Center (*Editorial. About*). CPI is calculated by multiplying together four rates from a given year: the percent of grade 9 students promoted to grade 10, the percent of grade 10 students promoted to grade 11, the percent of grade 11 students promoted to grade 12, and the percent of grade 12 students earning a regular high school diploma. Although the CPI does not actually follow a cohort of students from grade 9 to graduation, it provides an estimate of the percentage of grade 9 students who will earn a regular high school diploma on time, assuming schooling conditions remain the same (*Editorial. Education Week's Diplomas 43*).

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Kentucky's graduation rate ranks 32<sup>nd</sup> for all students combined. The rate is above the national average for females but below average for males.

Table 4.6 presents graduation rates for all students and by gender. Kentucky's graduation rate ranks 32<sup>nd</sup> for all students combined. In most states, males are less likely to graduate than are females. This gender gap is even larger in Kentucky, where the rate for females is above the national average, while the rate for males is below the national average.

**Table 4.6**  
**Education Week's Diplomas Count High School Graduation Rates, All Students and by Gender: FY 2003**

Rank	All Students		Males		Females	
	State	%	State	%	State	%
1	NJ	84.5	NJ	81.3	NJ	85.2
2	ND	83.1	ND	81.3 *	ND	84.5
3	IA	82.5	IA	79.0	IA	82.8
4	VT	81.2	UT	77.9	WI	82.3
5	WI	80.6	WI	76.7	CT	81.7
6	CT	79.3	CT	76.6	MN	81.5
7	PA	79.1	MN	76.2	UT	80.9
8	MN	79.0	NE	73.6	ID	80.2
9	ID	77.8	MT	73.5	NE	79.6
10	NE	77.8 *	OH	73.0	MD	79.4
11	NH	77.7	ID	72.2	OH	79.1
12	UT	76.7	MO	71.6	VA	78.8
13	OH	76.5	SD	71.5	MO	77.6
14	IL	76.3	ME	71.2	IL	77.1
15	MT	75.8	VA	70.7	MT	77.0
16	KS	75.0	IL	70.1	WV	76.5
17	VA	74.9	KS	70.1 *	CO	76.3
18	MO	74.7	WV	69.9	MA	75.7
19	SD	74.5	WY	69.8	AR	75.6
20	MD	74.4	MD	69.5	WY	75.5
21	ME	74.0	OK	69.4	IN	75.4
22	WY	74.0 *	IN	68.8	RI	74.7
23	IN	73.0	AR	68.7	KS	74.3
24	WV	72.8	CO	68.6	SD	74.3 *
25	CO	72.5	RI	67.9	OK	74.1
26	RI	72.3	MA	67.8	CA	73.7
27	MA	72.1	CA	66.3	KY	73.5
28	AR	71.8	AZ	66.1	WA	73.5 *
			U.S.	65.2		
29	CA	71.0	WA	65.1	ME	73.3
30	OK	71.0 *	KY	65.0	AZ	72.9
					U.S.	72.7
31	AZ	70.0	TX	62.8	TX	71.0
32	KY	69.7	MI	62.7	NC	69.7
	U.S.	69.6				
33	OR	69.0	NC	61.8	MI	69.2
34	WA	68.2	HI	60.5	MS	67.7
35	TX	66.8	AK	59.8	LA	67.5
36	MI	66.4	NY	58.4	HI	67.3
37	NC	66.2	DE	55.6	AL	66.2
38	HI	63.7	AL	55.4	AK	66.2 *
39	AK	63.6	LA	54.1	DE	65.9
40	NY	62.5	MS	53.6	NY	65.2
41	TN	62.2	NM	53.5	DC	64.2
42	MS	60.8	NV	52.9	FL	62.6

Continued on next page.

**Table 4.6 continued**

Rank	All Students		Males		Females	
	State	%	State	%	State	%
43	AL	60.7	FL	52.8	GA	61.7
44	DE	60.7 *	GA	51.4	NM	60.0
45	LA	60.6	DC	51.1	NV	59.9
46	DC	58.9	NH	†	NH	†
47	FL	57.5	OR	†	OR	†
48	NM	56.7	PA	†	PA	†
49	GA	56.3	SC	†	SC	†
50	NV	55.9	TN	†	TN	†
51	SC	52.5	VT	†	VT	†

Notes: \*State ties for the same rank as the state above it; for example, 73.5 percent of females graduate in Kentucky and Washington, so both states are tied for a rank of 27<sup>th</sup>. † Insufficient data and/or sample size too small.

Source: Editorial. *Education Week's Diplomas*.

Kentucky's graduation rate for white students is below the national average, while graduation rates for its Asian, Hispanic, and Black students are above the national averages for these groups.

Table 4.7 presents graduation rates by race and ethnicity. Kentucky's graduation rate for white students is below the national average, putting Kentucky in 38<sup>th</sup> place. In contrast, Kentucky's Asian, Hispanic, and Black students graduate at higher rates than the national averages for each of their groups.

**Table 4.7**  
*Education Week's Diplomas Count*  
**High School Graduation Rates by Race and Ethnicity: FY 2003**

Rank	Asian		Hispanic		Black		White	
	State	%	State	%	State	%	State	%
1	MD	91.1	MD	69.1	WY	67.0	NJ	86.9
2	NJ	88.7	NJ	69.0	NJ	66.1	WI	85.4
3	IL	87.3	KY	63.7	AZ	65.9	CT	85.3
4	AZ	83.5	AZ	60.3	WV	65.3	ND	84.8
5	TX	83.1	CA	60.1	AR	64.3	IA	84.2
6	CA	81.3	LA	58.7	VA	64.1	DC	84.0
7	FL	79.5	IA	57.9	MD	62.1	PA	83.2
8	KY	79.5 *	TX	57.8	CT	60.9	MN	83.1
9	NC	77.6	IL	57.0	RI	60.6	NE	82.9
	U.S.	77.0						
10	CO	76.6	MT	56.6	UT	60.6 *	UT	81.7
			U.S.	55.6				
11	GA	75.3	UT	55.5	TX	59.9	IL	81.0
12	WI	75.0	HI	55.3	DC	58.1	VT	81.0 *
13	OK	74.2	OR	55.1	NC	57.7	MD	80.8
14	PA	73.9	WY	55.0	PA	57.7 *	OH	80.5
15	AK	73.6	RI	54.5	HI	57.1	MT	79.0
16	WA	72.9	FL	54.0	MS	56.5	SD	78.8
17	NV	72.1	CO	53.8	OK	55.9	MA	78.5
18	UT	71.2	NM	53.4	CA	55.7	CO	78.3

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Table 4.7 continued

Rank	Asian		Hispanic		Black		White	
	State	%	State	%	State	%	State	%
19	LA	70.3	OK	53.0	KS	55.1	KS	78.1
20	OR	68.1	NC	52.9	MO	55.1 *	VA	77.8
21	KS	67.9	WA	52.7	CO	54.9	MO	77.4
22	MI	67.3	IN	52.3	KY	54.1	CA	76.8
							U.S.	76.2
23	IA	66.5	CT	51.8	LA	53.3	WY	75.9
24	MA	66.3	WI	49.1	MA	53.0	NY	75.6
25	HI	64.5	PA	49.0	IL	52.1	IN	75.4
					U.S.	51.6		
26	NY	63.0	NE	44.7	AK	51.4	RI	75.4
27	WY	60.4	AL	44.5	OH	50.7	TX	75.0
28	VT	59.5	DE	43.2	AL	50.3	AZ	74.8
29	RI	55.4	NV	41.6	IN	48.5	AR	74.8 *
30	ME	30.2	KS	41.2	DE	48.1	MI	74.7
31	NH	†	MA	41.2 *	WA	47.8	ID	74.0
32	SC	†	DC	41.1	IA	47.4	ME	73.1
33	TN	†	GA	39.5	NV	46.7	OK	73.1 *
34	AL	†	MI	35.0	GA	45.9	WV	73.1 *
35	AR	†	NY	33.4	NM	44.7	WA	71.5
36	CT	†	MS	29.8	WI	44.3	NC	71.3
37	DE	†	ND	28.1	MN	43.6	OR	70.9
38	DC	†	NH	†	MT	43.1	KY	70.7
39	ID	†	SC	†	FL	42.1	AK	68.9
40	IN	†	TN	†	NE	39.1	DE	67.0
41	MN	†	AK	†	NY	37.2	LA	66.4
42	MS	†	AR	†	MI	31.6	AL	66.0
43	MO	†	ID	†	OR	25.0	NM	66.0 *
44	MT	†	ME	†	NH	†	FL	64.7
45	NE	†	MN	†	SC	†	MS	64.6
46	NM	†	MO	†	TN	†	HI	63.2
47	ND	†	OH	†	ID	†	GA	63.1
48	OH	†	SD	†	ME	†	NV	62.5
49	SD	†	VT	†	ND	†	NH	†
50	VA	†	VA	†	SD	†	SC	†
51	WV	†	WV	†	VT	†	TN	†

Notes: \*State ties for the same rank as the state above it; for example, since Kentucky's graduation rate among Asians is the same as Florida's, the states tie for 7<sup>th</sup> place. †Insufficient data, sample size too small, or not reported. The American Indian category was omitted because these data were not available for Kentucky.

Source: Editorial. *Education Week's Diplomas*.

## Editorial Projects in Education *Education Week's Quality Counts*

Published annually since 1997 by Editorial Projects in Education, with support from The Pew Charitable Trusts, *Quality Counts* ranks and grades states based on K-12 education indicators. Each edition also examines a special topic, such as early childhood education, teacher quality, school finance, state standards, assessments, and accountability. *Education Week* says the 2007 issue views education through a “wider lens” than previous issues, focusing not only on elementary and secondary education but also on early childhood and postsecondary education.

### Chance for Success Index

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The Chance for Success Index combines 13 indicators of students' socioeconomic status, early childhood education, elementary and secondary academic achievement, postsecondary education, and employment opportunities.

In keeping with the wider lens approach, *Education Week's* new Chance for Success Index combines 13 indicators of students' socioeconomic status, early childhood education, elementary and secondary academic achievement, postsecondary education, and employment opportunities. For each indicator, points are awarded or deducted based on how statistically significant the difference is between a state and the national average. If the difference between the state and the national average is significant at the 95 percent level, the state receives one point if it is better or loses one point if it is worse. If the difference between the state and the nation is even more certain—99.5 percent—the state gains two points if it is better or loses two points if it is worse (Editorial. *Education Week's* “Sources”).

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Kentucky ranks 4<sup>1st</sup> on the Chance for Success Index; this is close to the rank of 42 on Annie E. Casey's index of child well-being, even though the two indices emphasize different factors. While both include measures of socioeconomic status, the Chance for Success index includes more education measures, while the index in *KIDS COUNT* includes more health factors.

State rankings on the Chance for Success Index are shown in Table 4.8, followed by a summary table of the components of the index (Table 4.9). Kentucky's rank on the Chance for Success Index is 41, which is close to the Commonwealth's rank of 42<sup>nd</sup> on the Annie E. Casey *KIDS COUNT* index of child well-being (shown in Tables 4.2 and 4.3), despite the different focus of the two indices. While both indices include measures of socioeconomic status, the Chance for Success Index includes more education measures, while the index in *KIDS COUNT* focuses primarily on background factors, such as health, that are presumed to hinder a student's ability to benefit from educational opportunities.

**Table 4.8**  
***Education Week's Quality Counts 2007***  
**Chance for Success Index: 2007**

<i>State</i>	<i>Total Points Awarded</i>	<i>Rank</i>
Virginia	+22	1
Connecticut	+21	2
Minnesota	+20	3
New Jersey	+19	4
Maryland, Massachusetts, New Hampshire	+18	5
Wisconsin	+17	8
Nebraska, Vermont	+16	9
Iowa	+15	11
Illinois, Kansas, North Dakota	+14	12
Pennsylvania	+13	15
Colorado, South Dakota	+10	16
Delaware, New York	+8	18
Rhode Island, Utah	+7	20
Washington	+6	22
Maine	+3	23
Wyoming, U.S.*	+2	24
Hawaii, Michigan	+1	25
Montana, Ohio	-1	27
Alaska	-2	29
Indiana	-3	30
Dist. of Columbia, Florida	-4	31
Missouri	-5	33
California	-6	34
Idaho, North Carolina, Oregon	-7	35
Georgia	-9	38
Arkansas	-10	39
Oklahoma	-11	40
Kentucky, South Carolina	-12	41
Nevada, West Virginia	-13	43
Alabama, Mississippi, Tennessee	-14	45
Texas	-15	48
Arizona, Louisiana	-16	49
New Mexico	-23	51

Note: U.S. average was calculated by staff from state data.  
Source: Editorial. *Education Week's Quality Counts 2007*.

**Table 4.9**  
***Education Week's Quality Counts 2007***  
**Summary of Chance for Success Index Components**

Indicator	KY (%)	U.S. (%)	Points Awarded to KY	KY Rank (of 51)
<b>Family Income</b> (children in families with income at least 200% of poverty level) <sup>1</sup>	53.7	59.8	-2	39
<b>Parent Education</b> (children with at least one parent with college degree) <sup>1</sup>	37.2	42.5	-2	39
<b>Parental Employment</b> (children with at least one parent employed full time, year-round) <sup>1</sup>	66.5	70.6	-2	45
<b>Linguistic Integration</b> (children whose parents speak fluent English) <sup>1</sup>	97.0	84.3	+2	8
<b>Preschool Enrollment</b> (3- and 4-year-olds enrolled in preschool) <sup>1</sup>	42.2	44.8	0	27
<b>Kindergarten Enrollment</b> (eligible children enrolled in kindergarten) <sup>1</sup>	75.2	75.3	0	24
<b>Elementary Reading Achievement</b> (grade 4 students in public schools who score at or above "proficient") <sup>2</sup>	30.8	29.8	0	28
<b>Middle School Math Achievement</b> (grade 8 students in public schools who score at or above "proficient") <sup>2</sup>	22.5	28.5	-2	39
<b>High School Graduation</b> (public high school students graduating on time with standard diploma) <sup>3</sup>	69.7	69.6	0	32
<b>Postsecondary Participation</b> (adults ages 18-24 who have postsecondary credential or who are currently enrolled in postsecondary program) <sup>1</sup>	43.5	47.8	-2	34
<b>Adult Educational Attainment</b> (adults 25-64 with associate degree or higher) <sup>1</sup>	28.7	37.4	-2	47
<b>Annual Income</b> (employed adults 25-64 whose annual personal income reaches or exceeds national median of \$34,351 in July 2005 dollars) <sup>1</sup>	43.7	50.0	-2	37
<b>Steady Employment</b> (adults 25-64 working full time year-round) <sup>1</sup>	67.4	67.2	0	28
<b>Chance for Success Index</b> (total of the points awarded for the above)	--	n/a	-12	41

Notes: Income differences do not take into account geographic cost differences, which impact standards of living. Origins of data that appear in *Quality Counts 2007*: <sup>1</sup>EPE analysis of data from the U.S. Census Bureau's American Community Survey, 2005; <sup>2</sup>Natl. Assessment of Educational Progress, Natl. Ctr. for Education Statistics, U.S. Dept. of Ed., 2005; <sup>3</sup>Calculated using EPE Research Center's Cumulative Promotion Index (CPI) formula with 2002-03 school year data from the U.S. Dept. of Ed.'s Common Core of Data.  
Source: Editorial. *Education Week's Quality Counts 2007*.

### Caveats and Limitations

*Education Week* justifies focusing on several noneducation indicators because of their impact on a child's ability to concentrate and benefit from education. However, Education Trust criticizes this focus, asserting that personal circumstances do not preordain a child to failure or success.

**Relevance to Education.** Although more than half of the components of the Chance for Success Index reported in Table 4.9 are outside the control of educators, *Education Week* justifies focusing on them because of their impact on a child's ability to concentrate and benefit from educational opportunities. As *Education Week* notes:

A child who comes to school malnourished, from a poor household, having a mother with less than a high school education, or a parent whose primary language is not English is much more likely than a classmate without those factors to have academic and behavioral problems later on (Editorial. *Education Week's Quality Counts 2007* 20).

However, Education Trust (whose rankings are also included in this compendium) strongly criticizes *Quality Counts 2007*, charging that it encourages the defeatist notion that “demographics are destiny” and diminishes the “critical role of educators and public schools in preparing young people to become contributing citizens despite the obstacles they face outside of school” (Education Trust. *Education Trust Response*).

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As mentioned previously, poverty rates are rough measures that are not adjusted for cost of living differences.

**Family Income and Poverty.** *Quality Counts 2007* uses an indicator called “family income,” but readers should note that the measure is actually defined relative to the poverty rate (children in families with income at least 200 percent of poverty level). As discussed earlier in this chapter, poverty rates are rough measures that do not take into account geographic differences in the cost of living.

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Kentucky’s rank of 8<sup>th</sup> on Linguistic Integration—the percent of children whose parents speak fluent English—is largely due to Kentucky’s location in the nation’s interior.

**Linguistic Integration.** The only component on which Kentucky is ranked within the top 10 states is linguistic integration, which is defined as the percent of children whose parents speak English fluently. However, this is largely a function of the fact that, being in the nation’s interior, Kentucky has a smaller immigrant population than many other states. Since immigration and internal migration patterns are more volatile than other demographic forces, this indicator could fluctuate over time.

### Achievement Index

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The Achievement Index is composed of 15 measures. Kentucky ranks 34<sup>th</sup>, which is below average but not in the bottom tier of states.

*Quality Counts 2007* includes an Achievement Index, reported in Table 4.10, based on components that measure various state testing scores. The component measures are reported in Table 4.11. Like the Chance for Success Index, the Achievement Index awards points for statistically significant differences between the state and the nation for single-year scores. For indicators that measure change between years, the state’s current status is compared to its status in a previous year.

As shown in Table 4.10, Kentucky ranks 34<sup>th</sup> on the Achievement Index. This is below the national average but above the bottom 25 percent of the states.

**Table 4.10**  
***Education Week's Quality Counts 2007 Achievement Index: 2007***

<i>State</i>	<i>Total Points Awarded</i>	<i>Rank</i>
Massachusetts	+20	1
New Jersey	+18	2
Vermont	+16	3
Connecticut, Minnesota, North Dakota, South Dakota, Virginia, Washington	+14	4
Montana, Ohio, Pennsylvania, Wisconsin	+13	10
Idaho, New Hampshire	+12	14
Colorado, Iowa, Kansas, Texas, Utah	+11	16
Maine	+10	21
New York, Oregon	+8	22
Delaware	+7	24
Maryland, Nebraska, North Carolina, Wyoming	+6	25
Arkansas, Illinois, U.S.	+4	29
Florida, Indiana	+3	31
Missouri	+2	33
Alaska, Kentucky	-1	34
South Carolina	-3	36
California, Michigan, Oklahoma	-4	37
Tennessee	-5	40
Georgia, Rhode Island	-7	41
Arizona	-8	43
Nevada	-9	44
Dist. of Columbia, Louisiana	-10	45
Alabama, Hawaii, New Mexico, West Virginia	-12	47
Mississippi	-14	51

Note: U.S. average was calculated by staff. Components of this index are listed in Table 4.11.

Source: Editorial. *Education Week's Quality Counts 2007*.

**Table 4.11**  
***Education Week's Quality Counts 2007***  
**Summary of Achievement Index Components**

Indicator	KY	U.S.	KY Points	KY Rank
NAEP Grade 4 Math Proficiency 2005 <sup>1</sup>	26.1	35.3	-2	45
NAEP Grade 8 Math Proficiency 2005 <sup>1</sup>	22.5	28.5	-2	39
NAEP Grade 4 Reading Proficiency 2005 <sup>1</sup>	30.8	29.8	0	28
NAEP Grade 8 Reading Proficiency 2005 <sup>1</sup>	30.6	28.9	0	26
NAEP Grade 4 Math Scale Score Percent Change 2003-05 <sup>1</sup>	+2.8	+3.1	+1	30
NAEP Grade 8 Math Scale Score Percent Change 2003-05 <sup>1</sup>	-0.3	+1.4	0	41
NAEP Grade 4 Reading Scale Score Percent Change 2003-05 <sup>1</sup>	+0.9	+0.8	0	21
NAEP Grade 8 Reading Scale Score Percent Change 2003-05 <sup>1</sup>	-2.3	-0.9	0	40
NAEP Poverty Gap based on National School Lunch Program, 2005 <sup>1</sup>	18.4	26.7	+2	44
NAEP Poverty Gap Change 2003-05 <sup>1</sup>	-4.1	-1.7	0	45
Graduation Rates, Public Schools, 2002-03 <sup>1</sup>	69.7	69.6	0	32
Graduation Rate Change 2000-2003 <sup>1</sup>	+6.1	+2.9	+2	4
Advanced Placement Scores of 3+ per 100 Grade 11 & 12 Students <sup>2</sup>	8.9	15.7	-2	31
Advanced Placement Scores of 3+ per 100 Change 2000-2005 <sup>2</sup>	+3.7	+4.8	+2	23
"Bonus": NAEP Grade 8 Math—Advanced <sup>1</sup>	3.4	5.6	-2	39
<i>Achievement Index</i>	-1	--	-1	34

Notes: Origins of data that appear in *Quality Counts 2007*: <sup>1</sup>Natl. Assessment of Educational Progress 2005;

<sup>2</sup>College Board. *Advanced Placement*.

Source: Editorial. *Education Week's Quality Counts 2007*.

## Editorial Projects in Education *Education Week's Technology Counts 2007*

*Technology Counts*, an annual report launched in 1997 by Editorial Projects in Education focuses on top issues related to technology and schools. Reports have explored digital content and curriculum, e-learning, the impact of technology on assessment, and the way in which technology and education policies support the use of data to improve student achievement (Editorial. *Editorial*).

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Although it draws data from other sources, *Technology Counts* primarily summarizes the findings of its own annual survey of the chief state technology officials regarding state policy and practice in educational technology.

*Technology Counts* primarily summarizes the findings of its annual survey of the chief state technology officials regarding state policy and practice in educational technology, although the rankings also use data from other sources, as noted in each table. Officials in each state answer the survey and provide supporting documentation, such as state statutes, administrative rules, and Web site addresses. All 50 states and the District of Columbia participated in the 2007 survey.

EPE staff evaluate the responses and evidence provided, following up by phone or e-mail as necessary. Officials in each state are asked to review EPE's compilation of their responses and to confirm EPE's scores. State scores and ranks are changed only when states are able to provide clear evidence that a particular policy or practice is currently in place.

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With respect to technology in education, Kentucky ranks 7<sup>th</sup> overall, 2<sup>nd</sup> on the capacity to use technology, 5<sup>th</sup> on the use of technology, and 22<sup>nd</sup> on access.

*Technology Counts 2007* ranks states on 14 indicators covering three major areas of state technology policy and practice: access, use, and capacity. The overall rankings for these areas are presented in Table 4.12. Subsequent tables show state scores on the indicators that are used to create the scores shown in Table 4.12. Kentucky ranks 7<sup>th</sup> overall, 2<sup>nd</sup> in terms of the capacity to use technology, 5<sup>th</sup> (tied with nine other states) on the use of technology, and 22<sup>nd</sup> (tied with New Jersey) in terms of access to technology.

**Table 4.12**  
***Education Week's Technology Counts 2007***  
**Rankings, Grades, and Scores Overall and by the Three Major Areas: 2007**

Rank	Overall Technology			Access to Technology			Use of Technology			Capacity To Use Tech.		
	State	Grade	Score	State	Grade	Score	State	Grade	Score	State	Grade	Score
1	GA	A	95.8	SD	A	96.3	GA	A	100.0	GA	A	100.0
2	SD	A-	90.8	VA	A	96.3 *	NC	A	100.0 *	KY	A	93.2
3	VA	A-	90.8 *	WV	A	96.3 *	AZ	A	100.0 *	SD	B	86.3
4	FL	B+	87.0	WY	A	96.3	UT	A	100.0 *	VA	B	86.3 *
5	ID	B	86.2	KS	A-	90.0	SD	A-	89.8	FL	B	86.3 *
6	WV	B	86.2 *	ME	A-	89.8	VA	A-	89.8 *	ID	B	86.3 *
7	KY	B	86.0	GA	B+	87.5	FL	A-	89.8 *	TX	B	86.3 *
8	TX	B	83.2	NE	B+	87.5 *	ID	A-	89.8 *	LA	B	86.3 *
9	NC	B-	82.4	NM	B+	87.5 *	WV	A-	89.8 *	ND	B	86.3 *
10	AR	B-	80.9	MT	B+	87.5 *	KY	A-	89.8 *	IL	B	86.3 *
11	OK	B-	80.9 *	WI	B	86.0	AR	A-	89.8 *	CT	B	86.3 *
12	KS	B-	80.7	FL	B	85.0	OK	A-	89.8 *	NH	B	86.3 *
13	WY	B-	80.5	PA	B	85.0 *	MD	A-	89.8 *	AR	B-	79.5
14	SC	B-	80.1	TX	B	83.8	MI	A-	89.8 *	OK	B-	79.5 *
15	LA	B-	79.9	ID	B	82.5	TX	B-	79.5	SC	B-	79.5 *
16	ND	C+	79.4	ND	B	82.5 *	KS	B-	79.5 *	MD	B-	79.5 *
17	MD	C+	78.8	IN	B	82.5 *	WY	B-	79.5 *	PA	B-	79.5 *
18	ME	C+	78.4	NC	B-	81.3	SC	B-	79.5 *	AK	B-	79.5 *
19	AZ	C+	78.2	SC	B-	81.3 *	LA	B-	79.5 *	OH	B-	79.5 *
20	IN	C+	78.2 *	OH	B-	79.8	ME	B-	79.5 *	VT	B-	79.5 *
21	PA	C+	77.9	VT	C	76.0	IN	B-	79.5 *	IA	B-	79.5 *
				U.S.	C	76.0						
22	IL	C+	77.8	KY	C	75.0	IL	B-	79.5 *	WA	B-	79.5 *
23	AK	C+	77.5	NJ	C	75.0 *	AK	B-	79.5 *	NY	B-	79.5 *
	U.S.	C	76.7									
24	NE	C	76.5	LA	C	73.8	TN	B-	79.5 *	CA	B-	79.5 *
										U.S.	C	75.5
25	OH	C	76.2	TN	C	73.8 *	AL	B-	79.5 *	WV	C	72.7
26	UT	C	76.1	AR	C	73.5	MS	B-	79.5 *	KS	C	72.7 *
27	WI	C	76.0	OK	C	73.5 *	MN	B-	79.5 *	AZ	C	72.7 *
28	TN	C	75.3	AK	C	73.5 *	CO	B-	79.5 *	IN	C	72.7 *
29	CT	C	75.2	IA	C	73.5 *	HI	B-	79.5 *	NE	C	72.7 *
30	VT	C	74.9	MN	C	73.5 *	OR	B-	79.5 *	WI	C	72.7 *
							U.S.	C+	78.7			
31	MI	C	74.4	MA	C	72.5	ND	D+	69.3	TN	C	72.7 *
32	NM	C	74.2	MO	C	72.5 *	PA	D+	69.3 *	AL	C	72.7 *
33	IA	C	74.1	CT	C-	70.0	NE	D+	69.3 *	MS	C	72.7 *
34	AL	C	73.9	AL	C-	69.5	OH	D+	69.3 *	NJ	C	72.7 *
35	MS	C	73.1	UT	D+	69.3	WI	D+	69.3 *	CO	C	72.7 *
36	MN	C	72.9	WA	D+	68.5	CT	D+	69.3 *	MA	C	72.7 *
37	NH	C	72.5	IL	D+	67.5	VT	D+	69.3 *	MO	C	72.7 *
38	WA	C-	72.4	MI	D+	67.5 *	NM	D+	69.3 *	DE	C	72.7 *
39	NJ	C-	72.3	NY	D+	67.5 *	IA	D+	69.3 *	NC	D	65.8

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**Table 4.12 continued**

Rank	Overall Technology			Access to Technology			Use of Technology				Capacity To Use Tech.		
	State	Grade	Score	State	Grade	Score	State	Grade	Score	*	State	Grade	Score
40	NY	C-	72.1	MD	D+	67.0	NH	D+	69.3	*	WY	D	65.8
41	CO	C-	71.9	MS	D+	67.0	WA	D+	69.3	*	ME	D	65.8
42	MT	C-	71.9	DE	D	65.5	NJ	D+	69.3	*	MI	D	65.8
43	MA	C-	71.5	NV	D	65.5	NY	D+	69.3	*	NM	D	65.8
44	MO	C-	71.5	CO	D	63.5	MT	D+	69.3	*	MN	D	65.8
45	CA	C-	69.8	AZ	D-	62.0	MA	D+	69.3	*	HI	D	65.8
46	DE	D+	69.1	NH	D-	62.0	MO	D+	69.3	*	RI	D	65.8
47	HI	D+	68.1	CA	D-	60.5	CA	D+	69.3	*	UT	F	59.0
48	OR	D	66.3	OR	D-	60.5	DE	D+	69.3	*	MT	F	59.0
49	RI	D	65.2	RI	D-	60.5	RI	D+	69.3	*	OR	F	59.0
50	NV	D	64.6	HI	F	59.0	NV	D+	69.3	*	NV	F	59.0

Note: \*State ties for the same rank as the state above it; for example, Kentucky ties with nine other states with respect to Use of Technology; therefore, all 10 states are ranked 5<sup>th</sup>. Staff calculated U.S. scores by averaging state scores.

Source: Editorial. *Education Week's Technology Counts 2007*.

### Components of the Three Major Areas of Technology

**Access to Technology.** This major area is made up of four indicators: percent of students who say they have access to a computer in classroom; percent of students who say they have access to a computer in a laboratory or media center; students per instructional computer; and students per high-speed Internet-connected computer. To calculate the Access to Technology score, *Technology Counts* used an approach much like curving grades. For each of the four indicators, states were ranked and then divided into approximate quintiles (mirroring grades A through F), with the top 10 states given 100 points, the next 10 given 85, the next 11 given 75, the next 10 given 65, and the bottom 10 given 59. When states tied, they were all given the same number of points, so some final quintiles have fewer or more states than the 10 or 11 the design calls for. Finally, the scores for the four indicators were averaged to get the Access to Technology score (50).

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Kentucky is above the national average on all technology access measures, ranking 13<sup>th</sup> on classroom computers, 9<sup>th</sup> on lab or media computers, 20<sup>th</sup> on students per computer, and 19<sup>th</sup> on students per high-speed Internet-connected computer.

State rankings on these measures are reported in Table 4.13. Kentucky is above the national average on all access measures, with a rank of 13<sup>th</sup> on access to classroom computers, 9<sup>th</sup> on the percent of students with access to lab or media center computers, 20<sup>th</sup> on the student-computer ratio, and 19<sup>th</sup> on the number of students per high-speed Internet-connected computer.

**Table 4.13**  
***Education Week's Technology Counts 2007***  
**Access to Technology Components: 2005 and 2006**

Rank	Percent of Students with Computer in Classroom, 2005 <sup>1</sup>		Percent of Students with Computer in Lab or Media Center, 2005 <sup>1</sup>		Students per Instructional Computer, 2006 <sup>2</sup>			Students per High-speed Internet-connected Computer, 2006 <sup>2</sup>	
	State	Percent	State	Percent	State	Per Student	State	Per Student	
1	WV	68.5	SC	92.5	UT	5.4	UT	5.3	
2	LA	68.0	WY	89.0	DE	5.2	CA	5.0	
3	DC	67.5	VA	88.5	CA	5.1	MS	5.0 *	
4	ME	67.0	NC	87.0	MS	5.0	DE	4.9	
5	TN	65.0	WV	86.5	RI	5.0 *	AL	4.8	
6	GA	64.0	TX	86.5 *	AL	4.8	NV	4.6	
7	VA	63.0	GA	85.0	AZ	4.7	RI	4.6 *	
8	OH	60.5	UT	85.0 *	NV	4.7 *	HI	4.5	
9	SD	59.0	KY	84.0	NH	4.6	OR	4.4	
10	FL	58.5	IN	84.0 *	MD	4.5	MD	4.4 *	
11	NJ	58.5 *	MN	84.0 *	HI	4.5 *	AZ	4.3	
12	WY	56.5	WI	83.5	OR	4.5 *	LA	4.3 *	
13	KY	56.0	SD	83.0	NY	4.3	DC	4.2	
14	NC	55.5	ND	82.0	DC	4.3 *	NY	4.1	
15	DE	55.5 *	NV	81.5	LA	4.1	NH	4.1 *	
16	AL	55.0	KS	80.5	TN	4.1 *	CO	4.1 *	
17	MS	54.0	MD	80.5 *	MI	4.1 *	TN	4.1 *	
18	TX	53.5	AR	80.0	CO	4.1 *	IL	3.9	
19	ID	53.0	FL	79.5	IL	4.0	KY	3.8	
20	PA	52.5	PA	79.5 *	KY	3.9	MI	3.8 *	
21	KS	52.0	OK	78.5	NC	3.9 *	AR	3.8 *	
22	ND	51.5	AL	78.5 *	NJ	3.9 *	NC	3.8 *	
23	IN	51.5 *	ID	78.0	GA	3.8	MN	3.7	
24	SC	50.5	NE	78.0 *	AR	3.8 *	GA	3.7 *	
	U.S.	49.5		*			U.S.	3.7	
25	NY	49.0	MI	78.0 *	SC	3.8 *	SC	3.6	
26	MT	48.0	MT	77.5	CT	3.8 *	NJ	3.6 *	
27	NE	47.0	IL	77.0	MA	3.8 *	WA	3.6 *	
			U.S.	77.0	U.S.	3.8			
28	NM	47.0	NM	76.5	MN	3.7	CT	3.5	
29	MA	47.0 *	NJ	76.5 *	TX	3.5	MO	3.5 *	
30	MO	46.5	LA	76.0	OK	3.5 *	TX	3.4	
31	VT	45.5	CT	76.0 *	OH	3.5 *	MA	3.4 *	
32	MD	45.0	MA	76.0 *	WA	3.5 *	OK	3.4 *	
33	WA	44.5	IA	74.5	MO	3.5 *	OH	3.4 *	
34	IL	44.0	MO	74.5 *	PA	3.4	AK	3.3	
35	NH	44.0 *	NY	74.0	FL	3.3	IN	3.3 *	
36	CA	44.0 *	CO	73.5	ID	3.3 *	ID	3.3 *	
37	RI	44.0 *	OR	73.5 *	IN	3.3 *	IA	3.3 *	
38	CT	42.0	MS	73.0	WV	3.2	FL	3.2	

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**Table 4.13 continued**

Rank	Percent of Students with Computer in Classroom, 2005 <sup>1</sup>		Percent of Students with Computer in Lab or Media Center, 2005 <sup>1</sup>		Students per Instructional Computer, 2006 <sup>2</sup>			Students per High-speed Internet-connected Computer, 2006 <sup>2</sup>		
	State	Percent	State	Percent	State	Score	Notes	State	Score	Notes
39	AK	41.5	TN	72.0	AK	3.2	*	PA	3.2	*
40	MI	41.5 *	AZ	71.0	IA	3.2	*	ND	3.1	
41	AR	40.5	AK	68.5	VA	3.1		VT	3.1	*
42	CO	40.5 *	OH	68.5 *	ND	3.1	*	WI	3.1	*
43	WI	40.0	WA	67.5	VT	3.1	*	NM	3.1	*
44	OK	39.5	VT	66.0	NE	3.0		VA	3.0	
45	AZ	39.5 *	DE	64.5	WI	3.0	*	WV	3.0	*
46	IA	37.5	NH	64.0	NM	3.0	*	MT	2.9	
47	NV	37.0	ME	62.5	MT	3.0	*	NE	2.8	
48	OR	35.0	HI	62.5 *	KS	2.6		WY	2.6	
49	MN	34.5	DC	62.5 *	WY	2.5		KS	2.6	*
50	HI	32.5	CA	60.0	ME	2.1		ME	1.9	
51	UT	29.5	RI	55.0	SD	2.0		SD	1.9	*

Notes: \*State ties for same rank as state above it; for example, Kentucky ties with Indiana and Minnesota for 9<sup>th</sup> place with respect to the percent of students with access to a computer in a lab or media center. Staff calculated U.S. scores by averaging state scores. Origins of data that appear in *Technology Counts 2007*: <sup>1</sup>U.S. Dept. of Ed.; <sup>2</sup>Market Data Retrieval's 2005-06 Public School Technology Survey.  
Source: Editorial. "Detailed State Data Comparisons."

Among four technology policies examined, Kentucky lacks only one—testing of students' technology skills. This policy is in place in only four states.

**Use of Technology.** This major area comprises four policies: state includes technology in academic standards for students, state tests students on technology, state has established a virtual school, and state offers computer-based assessments. EPE collected this information in its annual state technology survey, 2007. In Table 4.14, checkmarks indicate the states in which the policies are in place. States with a policy in place receive an A (100 points), while those without the policy receive an F (59 points). Points for the four policies are averaged to create the Use of Technology measure, which in turn contributes one-third of the overall grade (Editorial. *Education Week's Technology Counts 2007* 50). The only policy that Kentucky lacks is assessment of students' technology skills, a policy in place in only four states.

**Table 4.14**  
***Education Week's Technology Counts 2007***  
**Use of Technology Components: FY 2007**

<b>Rank</b>	<b>State</b>	<b>Total Policies in Place</b>	<b>State Includes Technology in Academic Standards</b>	<b>State Tests Students on Technology</b>	<b>State Has Established a Virtual School</b>	<b>State Offers Computer-based Assessments</b>
1	GA	4	✓	✓	✓	✓
	NC	4	✓	✓	✓	✓
	UT	4	✓	✓	✓	✓
4	AR	3	✓		✓	✓
	AZ	3	✓	✓	✓	✓
	FL	3	✓		✓	✓
	ID	3	✓		✓	✓
	KY	3	✓		✓	✓
	MD	3	✓		✓	✓
	MI	3	✓		✓	✓
	OK	3	✓		✓	✓
	SD	3	✓		✓	✓
	VA	3	✓		✓	✓
	WV	3	✓		✓	✓
15	AK	2	✓		✓	
	AL	2	✓		✓	
	CO	2	✓		✓	
	HI	2	✓		✓	
	IL	2	✓		✓	
	IN	2	✓			✓
	KS	2	✓			✓
	LA	2	✓		✓	
	ME	2	✓			✓
	MN	2	✓			✓
	MS	2			✓	✓
	OR	2	✓			✓
	SC	2	✓		✓	
	TN	2	✓			✓
	TX	2	✓			✓
WY	2	✓			✓	
31	CA	1	✓			
	CT	1	✓			
	DE	1	✓			
	IA	1			✓	
	MA	1	✓			
	MO	1	✓			
	MT	1	✓			
	ND	1	✓			
	NE	1	✓			
	NH	1	✓			
NJ	1	✓				

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**Table 4.14 continued**

Rank	State	Total Policies in Place	State Includes Technology in Academic Standards	State Tests Students on Technology	State Has Established a Virtual School	State Offers Computer-based Assessments
31	NM	1	✓			
	NV	1	✓			
	NY	1	✓			
	OH	1	✓			
	PA	1	✓			
	RI	1	✓			
	VT	1	✓			
	WA	1	✓			
	WI	1	✓			
51	DC	0				
<b>Number of States with Each Policy in Place</b>			<b>48</b>	<b>4</b>	<b>23</b>	<b>23</b>

Notes: Arizona tested 25,000 students in grades 5 and 8 on basic technology skills in 2007. States with the same number of policies in place are assigned the same rank.

Source: Editorial. "Detailed State Data Comparisons."

**Capacity To Use Technology.** This is based on six policy indicators, shown in Table 4.15, designed to measure the extent to which the states include technology in their personnel requirements. The index indicates whether the following policies are present: state includes technology in standards for teachers; state includes technology in standards for administrators; state requires technology coursework or a test for initial teacher licensure; state requires technology coursework or a test for initial administrator licensure; state requires technology training or a technology test for recertification, or requires participation in technology-related professional development for teachers; and state requires technology training or a technology test for recertification, or requires participation in technology-related professional development for administrators. EPE collected the information for this table with its 2007 state technology survey. States receive either an A (100 points) when a policy is in place or an F (59 points) when the policy is not in place. The six scores are averaged and make up one-third of the overall grade (Education Week. *Technology Counts 2007* 50).

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Kentucky's capacity to use technology is 2<sup>nd</sup> in the nation, lacking only a policy requiring administrators to gain technology skills.

A recent study by the U.S. Department of Education's National Center for Education Statistics found that improving students' ability to benefit from using computers is closely tied to improving professional development for teachers in the area of technology use. Only Georgia has implemented all six policies. Kentucky ranks 2<sup>nd</sup>, lacking only the policy that requires administrators to demonstrate technology skills or take technology-related training or professional development (*Monitoring* 28).

**Table 4.15**  
**Education Week's Technology Counts 2007**  
**Capacity To Use Technology Components: FY 2007**

Rank	State	Total Policies in Place	State Includes Technology Skills in Standards		Requirements for an Initial License Include Technology Coursework or a Test		State Requires Technology Training or Testing for Recertification, or Requires Participation in Technology-related Professional Development	
			Teachers	Admin	Teachers	Admin	Teachers	Admin
1	GA	6	✓	✓	✓	✓	✓	✓
2	KY	5	✓	✓	✓	✓	✓	
3	CT	4	✓	✓	✓		✓	
	FL	4	✓	✓	✓	✓		
	ID	4	✓	✓	✓	✓		
	IL	4	✓	✓	✓	✓		
	LA	4	✓	✓	✓			✓
	ND	4	✓	✓	✓	✓		
	NH	4	✓	✓			✓	✓
	SD	4	✓	✓	✓	✓		
	TX	4	✓	✓	✓	✓		
	VA	4	✓	✓	✓	✓		
13	AK	3	✓	✓			✓	
	AR	3	✓				✓	✓
	IA	3	✓	✓	✓			
	MD	3	✓	✓	✓			
	NY	3	✓	✓	✓			
	OH	3	✓	✓	✓			
	OK	3	✓	✓	✓			
	PA	3	✓	✓	✓			
	SC	3	✓	✓			✓	
	VT	3	✓	✓	✓			
WA	3	✓	✓			✓		
24	AL	2	✓	✓				
	AZ	2	✓	✓				
	CA	2	✓		✓			✓ <sup>2</sup>
	CO	2	✓	✓				
	DE	2	✓	✓				
	IN	2	✓	✓				
	KS	2	✓	✓				
	MA	2	✓	✓				
	MO	2	✓	✓				
	MS	2	✓	✓				
	NE	2	✓	✓				
	NJ	2	✓	✓				
	TN	2	✓	✓				
	WI	2	✓	✓				
WV	2	✓	✓					

Continued on next page.

**Table 4.15 continued**

Rank	State	Total Policies in Place	State Includes Technology Skills in Standards		Requirements for an Initial License Include Technology Coursework or a Test		State Requires Technology Training or Testing for Recertification, or Requires Participation in Technology-related Professional Development	
			Teachers	Admin	Teachers	Admin	Teachers	Admin
39	HI	1	✓					
	ME	1	✓					
	MI	1	✓					
	MN	1	✓					
	NC	1	✓					
	NM	1					✓	
	RI	1	✓					
	WY	1	✓					
47	DC	0						
	MT	0						
	NV	0						
	OR	0						
	UT	0						
<b>Number of States With Each Policy in Place</b>			<b>45</b>	<b>36</b>	<b>19</b>	<b>9</b>	<b>9</b>	<b>5</b>

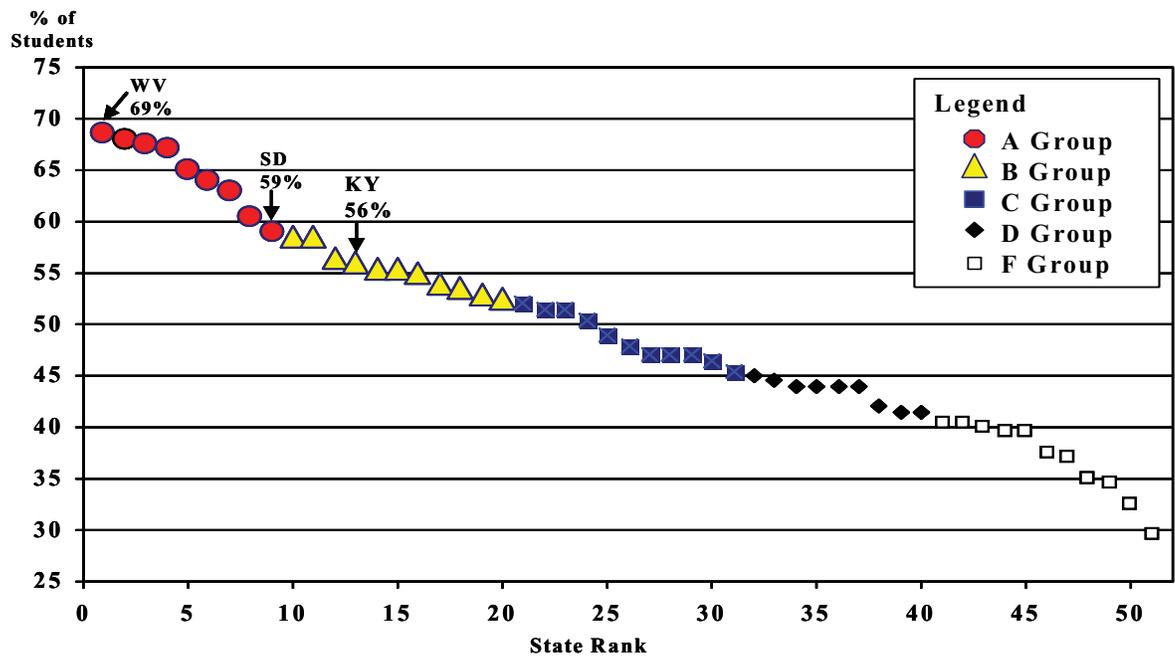
Notes: California requires technology-related professional development for principals of low-performing schools only. States with the same number of policies in place are assigned the same rank. Source: Editorial. "Detailed State Data Comparisons."

### Caveats and Limitations

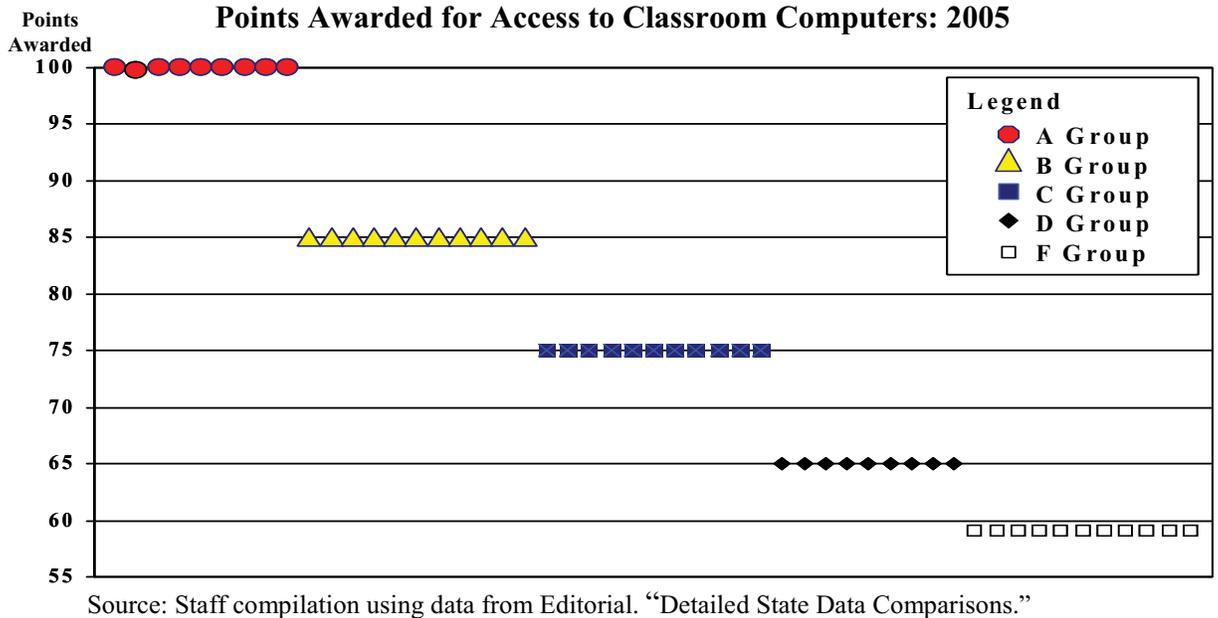
Arbitrary groupings such as those used for calculating Access to Technology can distort differences among states.

A methodology that uses arbitrary groupings can distort differences between states. For example, for each indicator of access to technology, states were forced into five approximately equal groups, representing grades A through F, and then awarded points. States in the A group received 100 points, B received 85, C received 75, D received 65, and F received 59. Converting percentages to points in this way distorts differences among states. For example, Figure 4.B shows the distribution of states by the percent of students with access to classroom computers. Arrows point to top-ranked West Virginia with 69 percent of students having access, South Dakota with 59 percent, and Kentucky with 56 percent. Figure 4.C shows the distribution of states by points awarded. West Virginia and South Dakota, being in the A group, received 100 points. Kentucky, in the B group, received 85. Even though West Virginia and South Dakota are 10 percentage points apart in Figure 4.B, they are equal in Figure 4.C. Even though South Dakota and Kentucky are only 3 percentage points apart in Figure 4.B, they are 15 points apart in Figure 4.C.

**Figure 4.B**  
*Education Week's Technology Counts 2007*  
**Percent of Students With Access to Classroom Computers: 2005**



**Figure 4.C**  
*Education Week's Technology Counts 2007*  
**Points Awarded for Access to Classroom Computers: 2005**



Another weakness, which is common in rankings, is that grading states relative to others offers no objective criteria. No matter how good or bad states are, and no matter how they change over time, there will always be roughly the same number of A's and F's.

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The data source for student-computer ratios tends to undercount computers. However, this undercount may be partially offset by the fact that many computers included in the count may be old and of limited usefulness. In addition, it is important to remember that overall national and state averages obscure the uneven distribution of computers among schools.

Student-computer ratios undercount computers and provide no information about the uneven distribution of computers among schools. A recent report by the U.S. Department of Education's National Center for Education Statistics points out that almost all counts of computer hardware in the nation's schools come from surveys conducted by two private companies: Quality Education Data and Market Data Retrieval (*Monitoring 28*). Market Data Retrieval is the source for *Technology Counts 2007*. Since the main objective of these surveys is to create marketing lists and reports for technology companies, many schools choose not to participate; therefore, the number of computers is underestimated. However, this undercount may be partially offset by a weakness that works in the other direction—many computers included in the count may be old and have limited usefulness, so the count could overestimate the number of computers that are truly useful. In addition to these data quality issues, overall student-to-computer ratios for the nation and for states obscure the fact that computers are not evenly distributed; some districts have many computers, while others have few, yet this is not evident in an overall average student-to-computer ratio (*Monitoring 28*).

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There is widespread agreement that computers are needed for gaining computer skills, but there is less consensus about the nature and degree of other learning benefits.

**Uncertain Benefits to Student Learning.** There is widespread agreement that classrooms need computers so that students can gain computer skills to succeed in today's workplace. However, there is less consensus regarding the nature and degree of other benefits that may be gained, such as critical thinking skills and knowledge of other content areas and (U.S. Dept. of Ed. Natl. Ctr. *Monitoring 28*).

**Data Comparability.** Table 4.14 includes a measure of whether the state offered computer-based assessments in FY 2007 and indicates that Kentucky has this policy in place. However, computer-based assessments are not available statewide, nor are they available to the majority of students. Kentucky established a pilot program to test computer-based assessment. The state also offers it for some special needs students. The comparability of computer-based assessment across states is unknown because *Technology Counts* does not discuss specific implementation differences.

## National Center for Public Policy and Higher Education: *Measuring Up*

### Background

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The National Center for Public Policy and Higher Education promotes policies and conducts research and policy analyses in order to enhance opportunities and achievement in postsecondary education and training.

Established in 1998, the National Center for Public Policy and Higher Education is a nonprofit organization whose mission is to promote policies that enhance postsecondary education and training opportunities. The center conducts research and policy analyses on opportunity and achievement in higher education (*About.*)

The center receives continuing support from a consortium of national foundations that includes the Pew Charitable Trusts, the Atlantic Philanthropies, and the Ford Foundation. The board of directors comprises decision makers across the political spectrum from government, business, and education.

In 2000, the center first published *Measuring Up*, a biennial report card for each state and the nation, whose purpose is “to provide the public and policy makers with information to assess and improve postsecondary education in each state.”

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The center’s biennial *Measuring Up* report ranks states on postsecondary education in terms of preparation, participation, affordability, timely completion, and benefits to the states of a highly educated population.

*Measuring Up 2006* ranks states in the five categories listed below. State rankings are summarized in Table 4.16. Table 4.17 provides information about how scores and grades were calculated.

- Preparation for education and training beyond high school
- Participation in education and training beyond high school
- Affordability of higher education
- Completion of certificates or degrees in a timely manner
- Benefits to the state from a highly educated population

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Kentucky ranks below the national average on all measures. It ranks lowest on preparation for and completion of postsecondary education and the benefits to the state of a highly educated population.

Kentucky ranks below the national average on all measures and ranks lowest in terms of preparation for and completion of postsecondary education and training, as well as the ensuing benefits to the state of a highly educated population.

**Table 4.16**  
**National Center for Public Policy and Higher Education's *Measuring Up 2006*:**  
**Overall Grades and Index Scores**

Rank	Preparation			Participation			Affordability			Completion			Benefits		
	MA	A	100	NM	A	100	CA	C-	71	NH	A	100	MA	A	100
1	MA	A	100	NM	A	100	CA	C-	71	NH	A	100	MA	A	100
2	NJ	A	94	RI	A	100 *	UT	C-	71 *	WA	A	99	MD	A	99
3	UT	A	94 *	ND	A	98	HI	D	65	PA	A	98	NJ	A	97
4	CT	A-	92	MN	A	97	ID	D	64	RI	A	98 *	VA	A	97 *
5	MD	A-	91	IL	A	96	MN	D	64 *	WY	A	97	CT	A	96
6	NY	A-	91 *	KS	A	96 *	NJ	D	63	MA	A	96	CA	A	95
7	VA	A-	90	MD	A	95	WA	D-	60	GA	A	95	MO	A	95 *
8	CO	B+	88	CA	A	94	IL	F	59	IA	A	95 *	NH	A	95 *
9	WI	B+	88 *	NE	A	94 *	WI	F	58	WI	A	95 *	IL	A	93
10	IA	B+	87	MA	A	93	IN	F	57	FL	A	94	OR	A	93 *
11	MT	B+	87 *	SD	A	93 *	NM	F	57 *	MN	A	94 *	CO	A-	92
12	NH	B+	87 *	CT	A-	92	NC	F	57 *	VT	A	94 *	UT	A-	92 *
13	NC	B+	87 *	MI	A-	92 *	TX	F	57 *	NY	A-	92	VT	A-	92 *
14	PA	B	86	NJ	A-	92 *	VA	F	57 *	DE	A-	90	MI	A-	91
15	IL	B	85	CO	A-	91	CO	F	55	MO	B+	89	PA	A-	91 *
16	MN	B	84	IA	A-	91 *	OK	F	55 *	CT	B+	88	WA	A-	91 *
17	NE	B	84 *	WI	A-	90	AR	F	54	IL	B+	88 *	HI	A-	90
18	SD	B	84 *	WY	B+	89	DE	F	54 *	IN	B+	88 *	AZ	B+	89
19	ME	B	83	AZ	B+	88	KS	F	54 *	NC	B+	88 *	MN	B+	89 *
20	WA	B	83 *	DE	B	86	NY	F	54 *	SC	B+	88 *	NY	B+	89 *
21	AK	B-	81	MO	B	84	PA	F	54 *	VA	B+	88	KS	B+	87
22	KS	B-	81 *	VA	B	84 *	MD	F	53	KS	B+	87	OH	B+	87 *
23	OH	B-	81 *	PA	B	83	NE	F	53 *	NE	B+	87 *	RI	B	86
24	VT	B-	81 *	UT	B	83 *	VT	F	52	SD	B+	87 *	FL	B	84
				U.S.	B	83							U.S.	B	84
25	ND	B-	80	ME	B-	82	WY	F	52 *	MD	B	86	AL	B	83
							U.S.	F	52	U.S.	B	85			
26	TX	B-	80 *	KY	B-	81	GA	F	51	CO	B	85	NE	B	83 *
	U.S.	C+	79												
27	RI	C+	78	NY	B-	81 *	KY	F	51 *	ME	B	85 *	NC	B	83 *
28	GA	C+	77	NC	B-	80	MI	F	51 *	OH	B	85 *	DE	B-	82
29	SC	C+	77 *	OH	B-	80 *	AK	F	50	UT	B	85 *	GA	B-	82 *
30	DE	C	75	AK	C+	79	CT	F	50 *	MS	B	84	OK	B-	81
31	FL	C	75 *	NH	C+	79 *	IA	F	50 *	NJ	B	84 *	WI	B-	81 *
32	IN	C	75 *	OK	C+	79 *	LA	F	50 *	AZ	B	83	AK	B-	80
33	MO	C	75 *	IN	C+	78	MS	F	50 *	CA	B	83 *	ME	B-	80 *
34	CA	C	74	OR	C+	78 *	FL	F	49	MI	B	83 *	TX	B-	80 *
35	ID	C	73	TX	C+	78 *	NV	F	49 *	ND	B	83 *	ND	C+	79
36	HI	C-	72	AL	C	76	AZ	F	47	TN	B	83 *	KY	C+	78
37	OR	C-	72 *	AR	C	76 *	MA	F	47 *	OR	B-	82	MT	C+	78 *
38	KY	C-	71	HI	C	76 *	MO	F	47 *	AL	B-	81	SD	C+	78 *
39	WY	C-	71 *	FL	C	75	ND	F	47 *	MT	B-	81 *	TN	C+	78 *
40	MI	C-	70	NV	C	75 *	TN	F	47 *	HI	B-	80	MS	C	76
41	NV	C-	70 *	VT	C	75 *	WV	F	46	KY	C+	78	AR	C	75
42	TN	C-	70 *	MT	C-	71	AL	F	43	WV	C+	78 *	IA	C	75 *
43	WV	C-	70 *	LA	C-	70	SC	F	43 *	ID	C+	77	NM	C	75 *
44	AR	D+	69	TN	C-	70 *	SD	F	43 *	TX	C+	77 *	SC	C	75 *
45	OK	D+	67	WA	C-	70 *	ME	F	42	AR	C	76	IN	C	74
46	AZ	D	66	WV	C-	70 *	OH	F	42 *	OK	C	76 *	NV	C-	72
47	MS	D-	62	ID	D+	69	OR	F	42 *	LA	C-	72	ID	C-	71
48	AL	D-	61	SC	D+	69 *	RI	F	40	NM	D	66	WY	C-	70
49	NM	F	57	GA	D+	67	MT	F	39	NV	F	59	LA	D+	68
50	LA	F	56	MS	D	66	NH	F	39 *	AK	F	49	WV	D+	68 *

Note: \*State ties for same rank as state above it. Staff calculated U.S. average scores and grades.  
Source: Natl. Ctr. for Public Policy and Higher Education. "Compare."

Table 4.17 summarizes indicators that are weighted and summed to create a numeric score for each state. Letter grades reflect each state's standing relative to the average of the top five states.

**Table 4.17**  
**National Center for Public Policy and Higher Education**  
**Summary of Indicators for *Measuring Up* Grades**

<i>Indicators</i>	<i>Weight</i>	<i>KY Score</i>	<i>U.S. Avg.</i>	<i>Top 5 Avg.</i>	<i>KY Rank*</i>
<b>Preparation</b>					
<b>High School Completion</b>	<b>20%</b>				
18- to 24-year-olds with high school credential (such as diploma or GED), 2002 through 2004 <sup>1</sup>	20%	87%	87%	94%	25
<b>K-12 Course Taking</b>	<b>35%</b>				
Students in grades 9 through 12 taking at least one upper-level math course, FY 2004 <sup>2</sup>	8.75%	53%	53%	64%	13 (of 35)
Students in grades 9 through 12 taking at least one upper-level science course, FY 2004 <sup>2</sup>	13.125%	29%	31%	40%	18 (of 35)
Grade 8 students taking algebra, FY 2004 <sup>2</sup>	8.75%	12%	22%	35%	28 (of 31)
Grade 12 students taking at least one upper-level math course, FY 2004 <sup>2</sup>	4.375%	n.a.	n.a.	66%	n.a.
<b>K-12 Student Achievement</b>	<b>35%</b>				
Students at or above proficient on grade 8 NAEP math, 2005 <sup>3</sup>	3.5%	23%	28%	38%	38
Students at or above proficient on grade 8 NAEP reading, 2005 <sup>3</sup>	3.5%	31%	29%	38%	24
Students at or above proficient on grade 8 NAEP science, 2005 <sup>3</sup>	3.5%	31%	27%	41%	23 (of 46)
Students at or above proficient on grade 8 NAEP writing, 2002 <sup>3</sup>	3.5%	25%	30%	41%	26 (of 43)
Low-income students at or above proficient on grade 8 NAEP math, 2005 <sup>3</sup>	3.5%	14%	13%	22%	24
Scores in top 20% nationally on SAT/ACT exam per 1,000 high school graduates, 2005 <sup>4,5</sup>	8.75%	156	184	237	34
Scores of 3-5 on Advanced Placement test per 1,000 high school juniors and seniors, 2005 <sup>4,5</sup>	8.75%	96	147	217	32
<b>Teacher Quality</b>	<b>10%</b>				
Students in grades 7 through 12 whose teachers majored in subject, FY 2000 <sup>3</sup>	10%	62%	70%	81%	40
<b>Overall Score and Grade for Preparation</b>	<b>100%</b>	<b>71 C-</b>	<b>79 C+</b>	<b>99 A</b>	<b>38</b>
<b>Participation</b>					
<b>Young Adults</b>	<b>60%</b>				
Chance for college by age 19 <sup>6</sup> (percent of 9 <sup>th</sup> graders completing high school in 4 years & immediately going to college), 2002	40%	38.5%	38.0%	53.8%	25
Percent of 18- to 24-year-olds enrolled in college, <sup>1</sup> 2002-2004	20%	32%	35%	41%	35
<b>Working-age Adults</b>	<b>40%</b>				
Percent of 25- to 49-year-olds enrolled part time in any postsecondary education, <sup>1</sup> 2003	40%	3.6%	3.9%	5.1%	27
<b>Overall Score and Grade for Participation</b>	<b>100%</b>	<b>81 B-</b>	<b>83 B</b>	<b>98 A</b>	<b>27</b>
<b>Affordability</b>					
<b>Family Ability To Pay</b> consists of the 3 indicators below, weighted by number of students enrolled in each sector: community college, public 4 year, and private 4 year. <sup>1,3,7,8,9</sup>	<b>50%</b>	(For components below, highest rank is for lowest %, representing most affordable.)			

Continued on next page.

**Table 4.17 continued**

<i>Indicators</i>	<i>Weight</i>	<i>KY Score</i>	<i>U.S. Avg.</i>	<i>Top 5 Avg.</i>	<i>KY Rank*</i>
<b>Affordability continued</b>					
% of income needed to pay for expenses (minus financial aid) at community colleges, <sup>1,3,7,8,9</sup> FY 2006	enrollment	26%	24%	15%	33
% of income for expenses (minus financial aid) at public 4-year colleges/universities, <sup>1,3,7,8,9</sup> FY 2006	enrollment	30%	31%	16%	25
% of income needed to pay for expenses (minus financial aid) at private 4-year colleges/universities, <sup>1,3,7,8,9</sup> FY 2006	enrollment	61%	72%	32%	26
<b>Strategies for Affordability</b>	<b>40%</b>				
State investment in need-based financial aid as compared to the federal investment, <sup>3,8,9</sup> FY 2006	20%	42%	40%	89%	15
At lowest-priced colleges, the share of income that the poorest families need to pay for tuition, <sup>1,3,7</sup> FY 2006	20%	24%	16%	7%	38
<b>Reliance on Loans</b>	<b>10%</b>				
Average loan amount undergraduates borrow each year, <sup>3</sup> FY 2005	10%	\$3,210	\$3,619	\$2,619	8
<b>Overall Score and Grade for Affordability</b>	<b>100%</b>	<b>51 F</b>	<b>52 F</b>	<b>67 D</b>	<b>27</b>
<b>Completion</b>					
<b>Persistence</b>	<b>20%</b>				
First-year community college students returning their second year, <sup>3,5,7</sup> Fall 2004	10%	51%	53%	62%	27
Freshmen at 4-year colleges/universities returning for sophomore year, <sup>3,5,7</sup> Fall 2004	10%	70%	77%	82%	40
<b>Completion</b>	<b>80%</b>				
First-time, full-time students completing a bachelor's degree within 6 years of college entrance, <sup>3</sup> FY 2004	30%	38%	55%	64%	47
Certificates, degrees, and diplomas awarded at all colleges and universities per 100 undergraduates, <sup>3,10,11</sup> FY 2004	50%	17	17	20	23
<b>Overall Score and Grade for Completion</b>	<b>100%</b>	<b>78 C+</b>	<b>85 B</b>	<b>102 A</b>	<b>41</b>
<b>Benefits Of Education</b>					
<b>Educational Achievement</b>	<b>37.5%</b>				
Population ages 25 to 65 with a bachelor's degree or higher, <sup>1,10,11</sup> 2002 through 2004	37.5%	23%	30%	37%	43
<b>Economic Benefits</b>	<b>31.25%</b>				
Increase in total personal income as a result of % of population with a bachelor's degree, <sup>1,10,11</sup> 2003, 2004, and 2005	18.75%	9%	10%	12%	19
Increase in total personal income as a result of % of population with some college but no bachelor's, <sup>1,10,11</sup> 2003, 2004, and 2005	12.5%	2%	2%	3%	8
<b>Civic Benefits</b>	<b>31.25%</b>				
Residents voting in 2002 and 2004 national elections <sup>1</sup>	10.5%	54%	51%	64%	19
Of those who itemize on federal taxes, % with charitable gifts, <sup>12</sup> 2003	10.375%	86%	87%	91%	30
Increase in volunteering rate as a result of college education, <sup>1</sup> 2003, 2004, and 2005	10.375%	16%	18%	22%	43
<b>Overall Score and Grade for Benefits</b>	<b>100%</b>	<b>78 C+</b>	<b>84 B</b>	<b>98 A</b>	<b>36</b>

Notes: \*Rank is out of 50 unless otherwise noted. Origins of data that appear in *Measuring Up 2006*: <sup>1</sup>Census Bureau; <sup>2</sup>Rolf K. Blank and Doreen Langesen. *State Indicators of Science and Mathematics Education 2005* and unpublished data from the authors and from the Council of Chief State School Officers; <sup>3</sup>U.S. Dept. of Ed.; <sup>4</sup>College Board; <sup>5</sup>ACT, Inc.; <sup>6</sup>Thomas Mortenson. "Chance for College by Age 19 by State in 2002." Postsecondary Education Opportunity Web site; <sup>7</sup>Natl. Ctr. for Higher Ed. Management Systems' special analysis of IPEDS Peer Analysis System data from Natl. Ctr. for Ed. Statistics; <sup>8</sup>Natl. Ctr. for Higher Ed. Management Systems' Annual Survey of State Grant Aid Programs; <sup>9</sup>Natl. Assoc. of State Student Grant and Aid Programs; <sup>10</sup>Pinkerton Computer Consultants; <sup>11</sup>Research Triangle Institute; <sup>12</sup>U.S. Dept. of the Treasury. Internal Revenue Service.

Source: Natl. Ctr. for Pub. Policy and Higher Ed. "Compare" and *Technical Guide for Measuring Up 2006*.

## Caveats and Limitations

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Measuring Up may be more thorough than other rankings, but this may also be to its disadvantage; its complexity makes it difficult for the average reader to understand

*Measuring Up* could be considered more comprehensive than most other rankings reports because it uses a larger number of indicators and much more analysis. However, the disadvantage of this approach is its complexity, which requires almost 100 pages to explain (Natl. Ctr. *Technical Guide 2006*). Each of the many indicators has unique assumptions, adjustments, and limitations. The extensive amount of technical documentation makes it difficult for the average reader to fully understand and evaluate it.

In addition, some indicators reflect different years for different states. Under *Measuring Up*'s "latest data available" principle, when a state does not respond to the center's survey, data from the most recent survey to which the state did respond are used. The problem with that approach is that, over time, the discrepancies become greater and greater. For example, in the 2006 issue, the indicator for high school students taking upper-level math is from 2000 for Delaware, 2002 for Kentucky, 2004 for Massachusetts, and 2006 for Michigan. The indicator is not available at all for 15 states that have never responded to the survey; for those states, the average category score is assigned, which is equivalent to basing the grade on only the data that are available (Natl. Ctr. *Technical Guides 2000, 2002, 2004, and 2006*).

## National Education Association *Rankings & Estimates*

### Background

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The National Education Association advances the interests of the teaching profession and promote the cause of education.

The National Education Association (NEA) was founded in 1857 to “elevate the character and advance the interests of the profession of teaching and to promote the cause of education in the United States.” With 3.2 million members, NEA calls itself the nation’s largest professional employee organization. Anyone who works for a public school district, a college or university, or any other public institution devoted primarily to education may join. NEA describes its affiliates in more than 14,000 communities as working to advance public education at every level of education, from preschool to university graduate programs, through such activities as raising funds for scholarships and conducting professional workshops. Activities of the national office and state affiliates include lobbying legislators for education resources, campaigning for professional standards, and filing legal actions to protect academic freedom and rights of school employees (*About*).

### *Rankings of the States 2005*

NEA publishes an annual report of rankings and estimates that provides local, state, and national facts about public education finances, enrollment and attendance, faculty and staff, and some general population data. The most current report, published in November 2006, uses 2005 data. Part I of the NEA report provides rankings for 2005. Included in this compendium are NEA state rankings based on per-pupil expenditures, student-teacher ratios, and average teacher salaries.

In addition to using general data from federal government sources, NEA collects, maintains, and analyzes its own education statistics. Twice a year, NEA prepares estimates of 35 education statistics and sends these to each state for verification. The data are reported as NEA estimates unless states provide revisions. However, because the data have been reviewed by states and revised as needed, they are considered final (Natl. Ed. *Rankings* 64, 101).

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In terms of per-student current expenditures, Kentucky ranks 30<sup>th</sup>. This rank does not account for geographic cost differences.

**Per-student Expenditures.** When states are ranked by current expenditures per student, Kentucky ranks 30<sup>th</sup>, as shown in Table 4.18. This ranking does not account for state differences in the costs of goods and services.

**Table 4.18**  
**National Education Association Current Spending Per Pupil: FY 2005**

Rank	State	FY 2005
1	District of Columbia	\$15,073 †
2	New Jersey	13,370
3	New York	12,879 †
4	Connecticut	11,874
5	Massachusetts	11,681
6	Vermont	11,667
7	Delaware	11,016 †
8	Maine	10,723
9	Rhode Island	10,641 †
10	Wyoming	10,372
11	Alaska	10,042 †
12	Wisconsin	9,805 †
13	Michigan	9,784 †
14	Pennsylvania	9,570 †
15	Ohio	9,557 †
16	New Hampshire	9,555
17	West Virginia	9,461
18	Illinois	9,327
19	Maryland	9,281 †
20	Minnesota	9,249
21	Georgia	8,882
22	Virginia	8,729
23	Indiana	8,723 †
--	United States	8,661 †
24	Hawaii	8,639
25	Colorado	8,337

Rank	State	FY 2005
26	New Mexico	\$8,178
27	South Carolina	8,035
28	Montana	8,025 †
29	California	7,942
30	Kentucky	7,906
31	Oregon	7,842
32	Kansas	7,693
33	Washington	7,683
34	Louisiana	7,656
35	Iowa	7,610
36	Nebraska	7,586
37	South Dakota	7,536
38	Missouri	7,398
39	North Carolina	7,392
40	North Dakota	7,377
41	Texas	7,310
42	Florida	7,181
43	Alabama	7,028
44	Tennessee	6,855
45	Idaho	6,743 †
46	Nevada	6,709
47	Oklahoma	6,614
48	Mississippi	6,452 †
49	Arkansas	6,202 †
50	Arizona	5,474 †
51	Utah	5,032

Note: †NEA estimate that the state reviewed and did not revise. Data without this symbol were reviewed and revised by the state. Due to the verification process by each state, all data are considered final. Expenditures are not adjusted for geographic cost differences.

Source: Natl. Ed. Assoc. *Rankings of the States 2005 and Estimates of School Statistics 2006* Table H-11. Data used with permission of the National Education Association © 2006. All rights reserved.

The ratio of students to teacher gauges students' opportunities to receive personal attention. Kentucky's ratio was about at the national average in fall 2004.

**Student-Teacher Ratios.** The ratio of students to teachers, shown in Table 4.19, roughly gauges students' opportunities to receive personal attention; states with smaller ratios may offer more opportunities. The average student-teacher ratio in fall 2004 ranged from 23.6 in Utah to 10.9 in Vermont. At 15.9 students per teacher, Kentucky was about at the national average of 15.8.

**Table 4.19**  
**National Education Association Student-Teacher Ratio in Public K-12 Schools: Fall 2004**

Rank	State	Ratio
1	Vermont	10.9
2	Rhode Island	11.3 †
3	Maine	11.9
4	Virginia	12.2
5	District of Columbia	12.4 †
6	New Jersey, New York, Wyoming	12.7
9	North Dakota	12.9
10	New Hampshire	13.5
11	Connecticut, South Dakota	13.6
13	Arkansas <sup>†</sup> , Iowa, Missouri, Nebraska	13.8
17	West Virginia	14.1
18	Kansas, Montana	14.3
20	Wisconsin	14.4
21	Massachusetts	14.6
22	South Carolina	14.7
23	Georgia, Louisiana, North Carolina	14.8
26	Delaware, Texas	14.9
28	New Mexico	15.0
29	Pennsylvania	15.2
30	Maryland	15.4
31	Oklahoma	15.6
32	Alabama, Tennessee	15.7
34	Mississippi, United States	15.8 †
35	Illinois, Kentucky	15.9
37	Minnesota	16.0
38	Hawaii	16.1
39	Ohio	16.2 †
40	Florida	16.6
41	Alaska	16.8
42	Indiana	16.9
43	Colorado	17.0
44	Idaho	17.6 †
45	Michigan	17.8 †
46	Washington	19.2
47	Nevada	19.4
48	Oregon	19.8
49	California	21.2
50	Arizona	21.5 †
51	Utah	23.6

Note: †NEA estimate that the state reviewed and did not revise. Data without this symbol were reviewed and revised by the state. Due to the verification process by each state, all data are considered final. Staff reversed the order of the original ranking for consistency (best results are ranked highest). As published by NEA, Utah received the rank of 1; Vermont received rank 51. Source: Natl. Ed. Assoc. *Rankings of the States 2005 and Estimates of School Statistics 2006* Table C-6. Data used with permission of the National Education Association © 2006. All rights reserved.

Kentucky ranks 34<sup>th</sup> with respect to the average public school teacher salary. This ranking does not account for state differences in costs of living.

**Average Teacher Salaries.** In Table 4.20, states are ranked by the average public school teacher salary in FY 2005. Kentucky ranks 34<sup>th</sup>. This ranking does not account for state differences in costs of living.

**Table 4.20**  
**National Education Association Estimates of Public School Teacher Average Salaries: FY 2005**

Rank	State	2004-05
1	District of Columbia	\$58,456 †
2	California	57,876 †
3	Connecticut	57,737
4	Michigan	56,973 †
5	New Jersey	56,682 †
6	New York	56,200
7	Illinois	55,421
8	Massachusetts	54,679
9	Rhode Island	53,473 †
10	Pennsylvania	53,258 †
11	Alaska	52,424
12	Maryland	52,331
13	Delaware	50,595
14	Ohio	48,692 †
15	Oregon	48,330
--	United States	47,674 †
16	Minnesota	46,906
17	Indiana	46,583
18	Georgia	46,526
19	Hawaii	46,149
20	Washington	45,718
21	Vermont	44,535
22	Wisconsin	44,299
23	Colorado	43,949
24	New Hampshire	43,941
25	Nevada	43,394
26	North Carolina	\$43,348
27	Arizona	42,905 †
28	Virginia	42,768
29	South Carolina	42,189
30	Idaho	42,122 †
31	Tennessee	42,076
32	Florida	41,590
33	Texas	41,011
34	Kentucky	40,522
35	Wyoming	40,497
36	Arkansas	40,495 †
37	Maine	39,610
38	Nebraska	39,456
38	Utah	39,456
40	New Mexico	39,391
41	Kansas	39,345
42	Iowa	39,284
43	Missouri	39,067
44	Louisiana	39,022
45	Montana	38,485
46	West Virginia	38,360
47	Alabama	38,186
48	Oklahoma	37,879
49	North Dakota	36,695
50	Mississippi	36,590 †
51	South Dakota	34,040

Note: † NEA estimate that the state reviewed and did not revise. Data without this symbol were reviewed and revised by the state. Due to the verification process by each state, all data are considered final. .

Source: Natl. Ed. Assoc. *Rankings of the States 2005 and Estimates of School Statistics 2006* Table C-6. Data used with permission of the National Education Association © 2006. All rights reserved.

**Caveats and Limitations.** The above salaries and rankings were reported in November 2006. They differ slightly from the average salaries reported by NCES for the same year because NCES prepared its table in January 2006, before NEA revised its estimates based on states' feedback. This is a common occurrence; two sets of estimates or forecasts for the same year may differ depending on the date on which they were generated and the information that was available at the time.

Because NEA estimates, collects, and analyzes its own data, the values and rankings reported by NEA are not identical to official data. For example, current spending per pupil reported by NEA differs from that reported by the Census Bureau. As shown in Table 2.17 of this compendium, the Census Bureau reports that Kentucky spends \$7,118 per pupil (unadjusted) and is ranked 43<sup>rd</sup>. However, in Table 4.18 of this compendium, NEA reports that Kentucky spends \$7,906 per pupil and is ranked 30<sup>th</sup>.

Another example of differences between NEA data and federal data involves average teacher salaries. Even though NCES obtains its salary data from NEA, data published by NCES does not match that reported by NEA. This is because, as part of NEA's routine process of verification and revision, NEA revised its salary data after NCES published it but before NEA published it. NCES data in Table 2.10 shows Kentucky with an average salary of \$41,002 (before adjusting for geographic cost differences) and a rank of 34<sup>th</sup>. NEA data in Table 4.20 has the same rank for Kentucky but a slightly lower average salary.

## National Institute for Early Education Research *The State of Preschool*

### Background

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The National Institute for Early Education Research (NIEER) is dedicated to ensuring that every American child receives a good education at ages three and four.

The National Institute for Early Education Research (NIEER) supports early childhood education initiatives by providing information based on research. The goal of NIEER is “to produce and communicate the knowledge base required to ensure that every American child can receive a good education at ages three and four”. The Institute offers independent research-based advice and technical assistance to policy makers, journalists, researchers, and educators (*About*).

NIEER was established in 2002 at Rutgers University with a grant from the Pew Charitable Trusts. Past and current supporters include the Carnegie Corporation, the Fund for New Jersey, Geraldine R. Dodge Foundation, the David and Lucile Packard Foundation, the Prudential Foundation, the Schumann Fund for New Jersey (Lighthouse Early Childhood Initiative), Smith Richardson Foundation, Tulsa Community Foundation, and the U.S. Department of Education’s Office of Educational Research and Improvement (*About*).

### *The State of Preschool*

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While acknowledging that there are many other privately and publicly funded programs, such as Head Start, NIEER focuses on state funding of childcare and preschool because the primary responsibility for education resides with state and local governments.

First published in 2003, *The State of Preschool* reports on state-funded programs to educate 3- and 4-year-olds. While acknowledging that there are many other privately and publicly funded programs, such as Head Start, NIEER focuses on state funding of childcare and preschool because the primary responsibility for education resides with state and local governments (Natl. Institute. *About*).

NIEER’s *The State of Preschool* collects data from state prekindergarten administrators. Since many questions are the same over time, any available data are filled in for respondents to verify. All states have an opportunity to review their final profile each year before publication. The yearbook profiles and ranks states on access, resources, and standards (162).

**Access to Preschool**

In FY 2006, only 38 states had preschool programs, and Kentucky's program is one of only 13 that fund 100 percent of districts.

In FY 2006, Kentucky was one of 38 states that had preschool programs and one of only 13 that funded 100 percent of districts. By statute, Kentucky requires districts to serve 4-year-olds from low-income families as well as 3-, 4-, and 5-year-olds with disabilities. The state provides funding for these services. Districts may use these funds, along with federal and local funds, to offer their own preschool services or to contract with Head Start, private childcare centers, and special education facilities (Natl. Institute. *The State of Preschool 2006* 72).

Kentucky ranks 4<sup>th</sup> in terms of enrollment of 3-year-olds and 10<sup>th</sup> in terms of enrollment of 4-year-olds.

*The State of Preschool 2006* discusses several aspects of access to preschool, including enrollment, percent of districts funded, eligibility requirements, and hours of operation. Kentucky excels with respect to several aspects. State rankings are based solely on enrollment. Kentucky ranks 4<sup>th</sup> in terms of percent of 3-year-olds who are enrolled and 10<sup>th</sup> in terms of the percent of 4-year-olds who are enrolled.

**Table 4.21**  
***The State of Preschool 2006* Percent of 3- and 4-Year-Olds Enrolled in Preschool: FY 2006**

Rank	4-Year-Olds		3-Year-Olds	
	State	% Enrolled	State	% Enrolled
1	OK	70.2	NJ	14.8
2	GA	51.5	IL	14.4
3	VT	47.0	VT	14.1
4	FL	46.5	KY	11.0
5	TX	44.3	AR	10.6
6	WV	39.9	MA	8.8
7	WI	32.1	TX	4.5
8	SC	31.0	WV	4.5 *
9	MD	30.7	CA	4.5 *
10	KY	29.3	SC	4.2
11	NY	28.6	CT	3.2
			U.S.	3.0
12	NJ	24.9	OR	2.6
13	IL	23.0	MO	2.3
14	LA	21.6	CO	2.2
	U.S.	19.9		
15	AR	18.2	NE	2.1
16	MI	16.2	PA	1.5
17	ME	15.5	WA	1.4
18	KS	14.5	IA	1.4 *
19	CT	13.7	MD	1.0
20	CO	13.5	OH	1.0 *
21	NC	12.2	MN	1.0 *
22	VA	11.1	WI	0.7

Continued on next page.

**Table 4.21 continued**

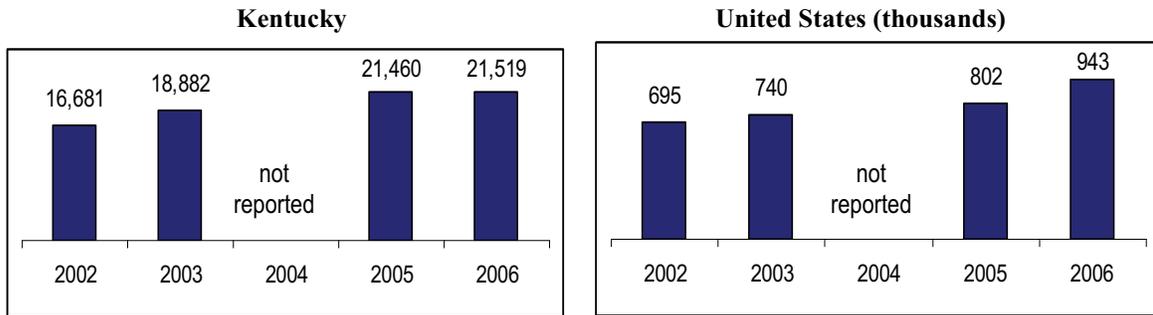
Rank	4-Year-Olds		3-Year-Olds	
	State	% Enrolled	State	% Enrolled
23	TN	10.6	NM	0.6
24	CA	9.9	NV	0.6 *
25	MA	9.8	NY	0.5
26	DE	7.8	TN	0.5 *
27	NM	6.8	AL	none served
28	WA	6.0	AZ	none served
29	AZ	5.8	DE	none served
30	PA	5.6	FL	none served
31	OR	5.0	GA	none served
32	IA	4.5	KS	none served
33	OH	4.4	LA	none served
34	MO	4.0	ME	none served
35	NE	3.6	MI	none served
36	NV	2.1	NC	none served
37	MN	1.8	OK	none served
38	AL	1.7	VA	none served
39	AK	no program	AK	no program
40	HI	no program	HI	no program
41	ID	no program	ID	no program
42	IN	no program	IN	no program
43	MS	no program	MS	no program
44	MT	no program	MT	no program
45	NH	no program	NH	no program
46	ND	no program	ND	no program
47	RI	no program	RI	no program
48	SD	no program	SD	no program
49	UT	no program	UT	no program
50	WY	no program	WY	no program

Note: \*State rank ties with that of the state shown above it; for example, since Texas, West Virginia, and California all have 4.5 percent of 3-year-olds enrolled in preschool, all three states tie for the rank of 7<sup>th</sup>. Nationwide, an additional 17,357 children of other ages are enrolled in state preschool programs, for a national total enrollment of 942,766.

Source: Natl. Inst. *The State Preschool 2006* 12.

As Figure 4.D illustrates, the total enrollment of 3- and 4-year-olds in state preschool programs has grown in Kentucky and in the nation since FY 2002, the first year reported by the *State Preschool Yearbook* series.

**Figure 4.D**  
***The State of Preschool***  
**Total Enrollment of 3- and 4-Year-Olds in Preschool: 2002 to 2006**



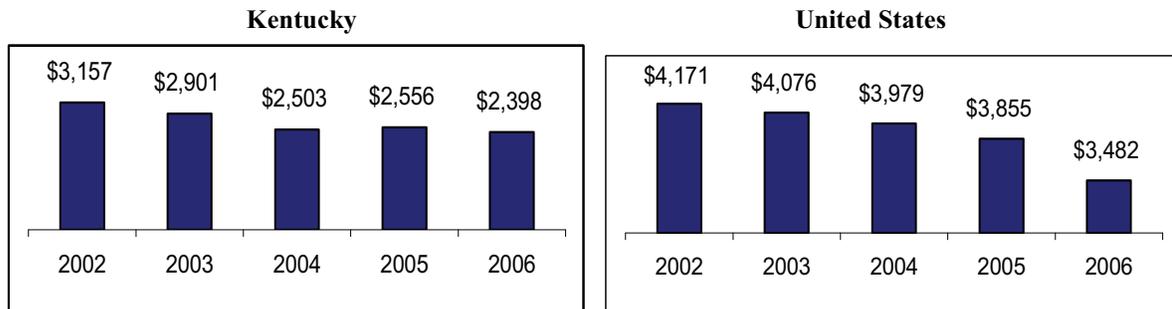
Source: Natl. Inst. *The State of Preschool* 2006 5, 73; *The State of Preschool* 2005 73, 160; *The State of Preschool* 2004 5, 99; *The State of Preschool* 2003 77.

### Resources

The State Preschool Yearbook reports that state funding is not keeping up with rising preschool enrollments. Funding has declined when inflation is taken into account.

*The State of Preschool* reports that state funding is not keeping up with rising preschool enrollments. As Figure 4.E shows, funding has declined when inflation is taken into account. To create Figure 4.E, NIEER adjusted the total amount of state funding for preschool for inflation and then divided by total enrollments of 3- and 4-year olds.

**Figure 4.E**  
***The State of Preschool***  
**2006 Spending Per Child Enrolled in Preschool: 2002 to 2006 (Constant 2006 Dollars)**



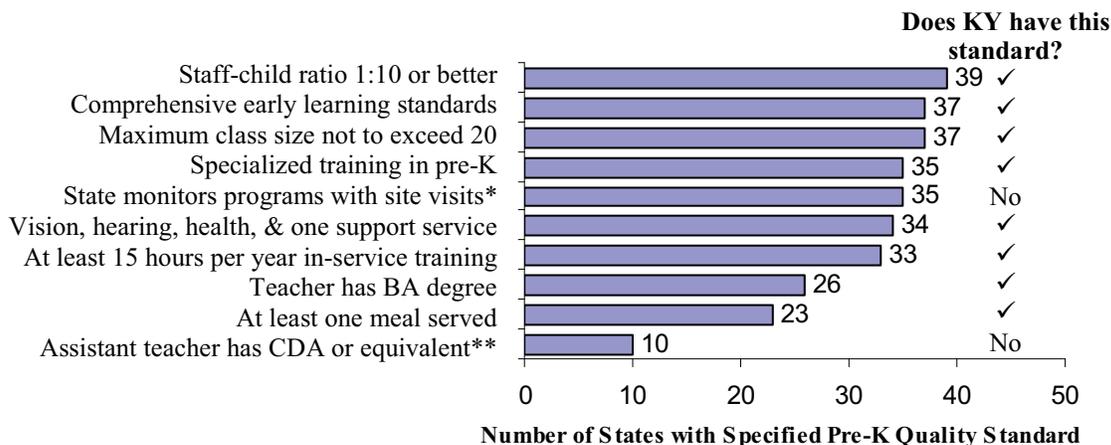
Source: Natl. Inst. *The State of Preschool* 2006 4, 72

## Quality Standards

Only two states meet all 10 of NIEER's research-based quality standards. With 8 of the 10 standards met, Kentucky ties with several other states for a rank of 9<sup>th</sup>.

NIEER evaluates the quality of state preschool programs with a checklist of 10 research-based quality standards. Figure 4.F lists those standards and the number of states that meet each one. Only two states (Alabama and North Carolina) meet all standards. With 8 of the 10 standards met, Kentucky ties with several other states for a rank of 9<sup>th</sup>. To attain a perfect score, Kentucky would need to do two things: require that assistant teachers have a Child Development Associate certificate or the equivalent and direct department of education representatives to make regular site visits to monitor local preschool programs as part of a continuous quality improvement process.

**Figure 4.F**  
***The State of Preschool 2006***  
**Pre-Kindergarten Quality Standards: FY 2006**



Notes: \* Site visits refer to state departments' visits to preschools. \*\*CDA is Child Development Associate certificate.

Source: Natl. Inst. *The State Preschool 2006* 18.

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## Appendix

### State Abbreviations With Associated Full State Names (in order of abbreviations)

AK	Alaska	KY	Kentucky	NY	New York
AL	Alabama	LA	Louisiana	OH	Ohio
AR	Arkansas	MA	Massachusetts	OK	Oklahoma
AZ	Arizona	MD	Maryland	OR	Oregon
CA	California	ME	Maine	PA	Pennsylvania
CO	Colorado	MI	Michigan	RI	Rhode Island
CT	Connecticut	MN	Minnesota	SC	South Carolina
DC	District of Columbia	MO	Missouri	SD	South Dakota
DE	Delaware	MS	Mississippi	TN	Tennessee
FL	Florida	MT	Montana	TX	Texas
GA	Georgia	NC	North Carolina	UT	Utah
HI	Hawaii	ND	North Dakota	VA	Virginia
IA	Iowa	NE	Nebraska	VT	Vermont
ID	Idaho	NH	New Hampshire	WA	Washington
IL	Illinois	NJ	New Jersey	WI	Wisconsin
IN	Indiana	NM	New Mexico	WV	West Virginia
KS	Kansas	NV	Nevada	WY	Wyoming

**State Abbreviations With Associated Full State Names  
(in order of full state names)**

AL	Alabama	KY	Kentucky	ND	North Dakota
AK	Alaska	LA	Louisiana	OH	Ohio
AZ	Arizona	ME	Maine	OK	Oklahoma
AR	Arkansas	MD	Maryland	OR	Oregon
CA	California	MA	Massachusetts	PA	Pennsylvania
CO	Colorado	MI	Michigan	RI	Rhode Island
CT	Connecticut	MN	Minnesota	SC	South Carolina
DE	Delaware	MS	Mississippi	SD	South Dakota
DC	District of Columbia	MO	Missouri	TN	Tennessee
FL	Florida	MT	Montana	TX	Texas
GA	Georgia	NE	Nebraska	UT	Utah
HI	Hawaii	NV	Nevada	VT	Vermont
ID	Idaho	NH	New Hampshire	VA	Virginia
IL	Illinois	NJ	New Jersey	WA	Washington
IN	Indiana	NM	New Mexico	WV	West Virginia
IA	Iowa	NY	New York	WI	Wisconsin
KS	Kansas	NC	North Carolina	WY	Wyoming