# 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.

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# Contents

Foreword ..... i

Chapter 1: State Education Rankings Introduction ..... 1
Organization of This Compendium ..... 1
How Rankings Were Chosen for This Report ..... 2
How To Use This Compendium ..... 2
Issues To Consider When Evaluating Rankings ..... 4
Evaluation Criteria ..... 4
Ranks Tell Only Part of a Story ..... 5
Drawing Policy Implications ..... 6
Using Different Indicators for Different Purposes ..... 6
Interpreting Indicators in Context ..... 8
Anticipating the Consequences of Policy Changes ..... 8
Watching for Conflicting/Paradoxical Findings ..... 8
Other Notes ..... 9
Substantive/Practical Significance ..... 9
Data Comparability ..... 10
Random Fluctuations Over Time ..... 10
Comparison Groups ..... 10
Fiscal and School Years ..... 10
States and District of Columbia ..... 11
Conclusion ..... 11

Chapter 2: State Education Rankings From Federal Government Sources ..... 13
Introduction ..... 13
Federal Data Sources ..... 13
Information About Students and Their Families and Communities ..... 14
Information About Teachers and Other Staff ..... 15
Information About Districts and Schools ..... 15
Information About School Finance ..... 16
Comparability of Salaries and Financial Data ..... 16
NCES Comparable Wage Index ..... 16
Overview of Rankings in This Chapter ..... 19
Rankings ..... 20
Students and Their Families and Communities ..... 20
Enrollment ..... 20
Caveats and Limitations ..... 22
Racial and Ethnic Composition ..... 22
Family Type ..... 24
Family Income ..... 26
Caveats and Limitations ..... 27
Eligibility and Participation in Selected Programs ..... 27
Graduation Rates ..... 29
Caveats and Limitations ..... 30

Teachers and Other Staff ....31
Student-Teacher Ratio ....31
Instructional Staff as a Percent of All Staff ....32
Teacher Salaries ....33
Caveats and Limitations ....35
Districts and Schools ....37
Title I ....37
School Crime and Safety ....39
Teacher-reported Incidents ....39
Student-reported Incidents ....41
School Finance ....43
Revenues ....43
Current Spending Relative to Enrollment and Per Capita Income ....46
Current Spending on Instruction and Other Functions ....48
Support Services ....48
All Other Functions ....49
Instruction ....49

Chapter 3: Student Assessment Data ....55
Introduction ....55
Rankings ....56
ACT, Inc.: *The ACT High School Achievement and College Readiness Exam* ....56
Background ....56
Caveats and Limitations ....56
ACT Test Results 2006 ....58
College Board: *Advanced Placement* ....60
Background ....60
College Board: *SAT Reasoning Test* ....63
Background ....63
SAT Scores and Participation Rates, 2006 ....65
U.S. Department of Education: *National Assessment of Educational Progress* ....67
Background ....67
Reading ....69
Mathematics ....72
Science ....74
2005 NAEP Science Results ....75
Caveats and Limitations ....77
Sampling Error ....77
Cause-and-Effect Inferences ....78
Performance/Achievement Levels ....78
NAEP Compared to State Assessments ....79

Chapter 4: State Education Rankings and Comparisons From Independent Organizations ....81
Introduction ....81
Achieve, Inc.: Closing the Expectations Gap ....82
Background ....82
*Closing the Expectations Gap* ....82
College and Work-readiness Policies ....82
Students' Progress Through the "Education Pipeline" ....83
Caveats and Limitations ....85
Annie E. Casey Foundation: *KIDS COUNT Data Book* ....86
Background ....86
*KIDS COUNT* Key Indicators ....86
Congressional Quarterly: *Governing Magazine*'s *State and Local Sourcebook* ....89
Background ....89
Caveats and Limitations ....91
Education Trust: *The Funding Gap 2006* ....92
Background ....92
*Funding Gap 2006* ....92
Editorial Projects in Education: *Education Week*'s *Diplomas Count* ....95
Background ....95
Editorial Projects in Education: *Education Week*'s *Quality Counts* ....99
Chance for Success Index ....99
Caveats and Limitations ....101
Relevance to Education ....101
Family Income and Poverty ....102
Linguistic Integration ....102
Achievement Index ....102
Editorial Projects in Education: *Education Week*'s *Technology Counts* ....105
Components of the Three Major Areas of Technology ....107
Access to Technology ....107
Use of Technology ....109
Capacity To Use Technology ....111
Caveats and Limitations ....113
Uncertain Benefits to Student Learning ....115
Data Comparability ....115
National Center for Public Policy and Higher Education: *Measuring Up* ....116
Background ....116
Caveats and Limitations ....120
National Education Association: *Rankings & Estimates* ....121
Background ....121
*Rankings of the States 2005* ....121
Per-student Expenditures ....121
Student-Teacher Ratios ....122
Average Teacher Salaries ....124
Caveats and Limitations ....124

National Institute for Early Education Research: *The State of Preschool* .....126
Background .....126
*The State of Preschool* .....126
Access to Preschool .....127
Resources .....129
Quality Standards .....130
Works Cited .....131

Appendix: State Abbreviations .....139

## List of Tables

1.1 Simpson's Paradox, SAT Verbal Scores by Ethnic Group and Ethnic Makeup of Test Takers: 1981-2005 .....9
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 .....17
2.2 Actual and Projected Percentage Changes in P-12 Enrollment in Public Schools: Fall 1997-Fall 2015 .....21
2.3 Racial and Ethnic Composition of Students: FY 2005 .....23
2.4 Percent of Children Living in Married-Couple Families: 2005 .....25
2.5 Percent of Children Living in Families With Incomes At or Above Federal Poverty Line: 2005 .....26
2.6 Percentages of Students in Selected Programs: FY 2005 .....28
2.7 Four-year High School Graduation Rate (Averaged Freshman Graduation Rate): FY 2004 .....30
2.8 Student-Teacher Ratio: FY 2005 .....31
2.9 Instructional Staff as a Percent of All Staff: Fall 1998 and Fall 2003 .....32
2.10 Average Teacher Salaries Based on National Education Association Estimates Unadjusted and Adjusted for Cost-of-Living Differences: FY 2005 .....34
2.11 Percent Change in Average Teacher Salaries in Constant FY 2005 Dollars: FY 1990 to FY 2005 .....36
2.12 Title I-Eligible Schools and Title I Schoolwide Programs as a Percent of All Schools: FY 2005 .....37
2.13 Percentage of Public School Teachers Threatened With Injury by a Student at School in Past 12 Months: FY 1994 and FY 2004 .....39
2.14 Percent of Students Reporting Incidents in Previous 12 Months: Average of Surveys Conducted in 2003 and 2005 .....41
2.15 Combined Federal, State, and Local Revenues Per Pupil, Unadjusted and Adjusted for Geographic Cost Differences: FY 2005 .....43
2.16 Revenues by Source as Percentage of Total Revenues: FY 2005 .....45
2.17 Current Spending Per Pupil, Unadjusted and Adjusted for Geographic Cost Differences, and Per $1,000 in Personal Income: FY 2005 .....47
2.18 Spending on Instruction, Support Services, and Other Functions as Percentages of Current Spending: FY 2005 .....51

2.19 Spending on Instruction and Instruction-related, Student Support Services, Administration, and Operations Functions, As Percentages of Current Spending: FY 2005 ....53
3.1 ACT Test Items by Content Area ....56
3.2 ACT Participation Rates and Average Scores for High School Graduates Tested: 2006....58
3.3 College Board, Percentage of All High School Students Scoring 3 or Higher on an AP Exam: 2000 and 2006 ....61
3.4 College Board, Percent of High School Graduates Participating in SAT and Average SAT Scores: 2006....65
3.5 National Assessment of Educational Progress Achievement Level Definitions....68
3.6 Overview of NAEP Reading Assessment....69
3.7 Percent of Students At or Above Proficient on NAEP Reading/Language Arts Assessment: 2005....70
3.8 Overview of NAEP Mathematics Assessment ....72
3.9 Percent of Students At or Above Proficient on NAEP Mathematics Assessment: 2005....73
3.10 Overview of NAEP Science Assessment....75
3.11 Percent of Students At or Above Proficient on NAEP Science Assessment: 2005....76
4.1 Achieve Analysis of Education Pipeline Estimates: FY 2002....84
4.2 *2006 KIDS COUNT Data Book*: Summary of Key Indicators of Child Well-being Used To Compute Overall State Rank....87
4.3 *2006 KIDS COUNT Data Book*: Overall Child Well-being Rank Based on 2003 and 2004 Measures ....88
4.4 *Governing Magazine*'s *2006 Local and State Sourcebook* K-12 Education Rankings ....90
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....93
4.6 *Education Week*'s *Diplomas Count* High School Graduation Rates, All Students and by Gender: FY 2003 ....96
4.7 *Education Week*'s *Diplomas Count* High School Graduation Rates by Race and Ethnicity: FY 2003 ....97
4.8 *Education Week*'s *Quality Counts 2007* Chance for Success Index: 2007....100
4.9 *Education Week*'s *Quality Counts 2007* Summary of Chance for Success Index Components ....101
4.10 *Education Week*'s *Quality Counts 2007* Achievement Index: 2007....103
4.11 *Education Week*'s *Quality Counts 2007* Summary of Achievement Index Components ....104
4.12 *Education Week*'s *Technology Counts 2007* Rankings, Grades, and Scores Overall and by the Three Major Areas: 2007 ....106
4.13 *Education Week*'s *Technology Counts 2007* Access to Technology Components: 2005 and 2006 ....108

4.14 *Education Week*'s *Technology Counts 2007* Use of Technology Components: FY 2007 ....110
4.15 *Education Week*'s *Technology Counts 2007* Capacity To Use Technology Components: FY 2007 ....112
4.16 National Center for Public Policy and Higher Education's *Measuring Up 2006*: Overall Grades and Index Scores....117
4.17 National Center for Public Policy and Higher Education Summary of Indicators for *Measuring Up* Grades ....118
4.18 National Education Association Current Spending Per Pupil: FY 2005 ....122
4.19 National Education Association Student-Teacher Ratio in Public K-12 Schools: Fall 2004....123
4.20 National Education Association Estimates of Public School Teacher Average Salaries: FY 2005 ....124
4.21 *The State of Preschool 2006* Percent of 3- and 4-Year-Olds Enrolled in Preschool: FY 2006....127

## List of Figures

3.A ACT Composite Average by Participation Rate: 2006....57
3.B Average SAT Reading and Math Score by Participation Rate: 2006....64
3.C Percent Proficient on State's Own Test Minus Percent Proficient on NAEP, Grade 4 Reading: 2002 and 2006....79
4.A Achieve Analysis of the Number of States With Policies To Close the Expectations Gap Between High School and College/Workplace: 2007 ....83
4.B *Education Week's Technology Counts 2007* Percent of Students With Access to Classroom Computers: 2005 ....114
4.C *Education Week's Technology Counts 2007* Points Awarded for Access to Classroom Computers: 2005....114
4.D *The State Preschool* Total Enrollment of 3- and 4-Year-Olds in Preschool: 2002 to 2006 ....129
4.E *The State of Preschool 2006* Spending Per Child Enrolled in Preschool: 2002 to 2006 (Constant 2006 Dollars)....129
4.F *The State of Preschool 2006* Pre-Kindergarten Quality Standards: FY 2006 ....130

# Chapter 1

## State Education Rankings Introduction

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.

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

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

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 convienient 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.

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

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.

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.

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).

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.

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 evalution 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**

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 42nd 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 50th 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 33rd 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

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**

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 38th on the 2005 NAEP grade 8 math test. However, the Commonwealth also had a smaller poverty achievement gap than most states, ranking 8th 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**

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**

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 |
| ***All Groups*** | ***504*** | ***508*** | ***4*** | | |

Source: Bracey 64-65.

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

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**

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**

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**

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.[1]

**Fiscal and School Years**

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

[1] 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**

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.[2] 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.

[2] 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

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

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.

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.[3] 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**

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*).

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

[3] 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").

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 Bureaus 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**

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**

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.

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

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

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

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).[4] 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

[4] 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 34th. However, labor costs vary more within Kentucky than they do within many other states; Kentucky ranks 15th 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

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).

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$^{th}$ for 1997-2003, 18$^{th}$ for 2003-2009, and 33$^{rd}$ for 2009-2015.

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

| | Actual 1997-2003 | | Projected 2003-2009 | | Projected 2009-2015 | |
|---|---|---|---|---|---|---|
| Rank | 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 13th; Tennessee, the next state down is ranked 15th. 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

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

Compared to other states, Kentucky has relatively small minority populations. Kentucky is 7th 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**

| | Amer. Indian/ Alaska Native | | Asian/Pacific Islander | | Hispanic | | Black Non-Hispanic | | White Non-Hispanic | |
|---|---|---|---|---|---|---|---|---|---|---|
| Rank | 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 15th. 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 12th-ranked Montana.

With 69 percent of children living in married-couple families, Kentucky ranks 25th. However, Kentucky is not significantly different from 12th-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 | = |
| 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 | = |
| 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 39th-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 41st place. When statistically significant differences are taken into account, Kentucky looks only a little better, being essentially tied with 39th-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 | > |
| 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 | > |
| 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*.

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**

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 15th 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 15th.

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 14th in terms of the percent of students enrolled in schools eligible for Title I and 5th 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 14th and 5th, respectively.

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

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

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

| | Eligible for Free or Reduced-price Lunch | | Enrolled in Title I-Eligible Schools | | Enrolled in Title I Schoolwide Schools | | Have IEP | | ELL | |
|---|---|---|---|---|---|---|---|---|---|---|
| Rank | 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 39th.
— 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 33rd 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 33rd.

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

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

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 38th 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 38th.

**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 |
| 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 |
| 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**

| | Fall 1998 | | Fall 2003 | |
|---|---|---|---|---|
| Rank | 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 |

Continued on next page.

**Table 2.9 continued**

| Rank | Fall 1998 State | Fall 1998 % | Fall 2003 State | Fall 2003 % |
|---|---|---|---|---|
| 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 19th 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 34th highest salary in the nation. Adjusting salaries for state differences in cost of living brings Kentucky up to a rank of 31st. 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 2nd to 22nd place. However, Kentucky changes only slightly, rising from 34th to 31st 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 |

Continued on next page.

**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.

Kentucky has been increasing salaries faster than the national average. Kentucky ties with Ohio for 17th 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 17th place.

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

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

Notes: States with the same percentage change are assigned the same rank; for example, Kentucky ties with Ohio for a rank of 17th 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 15th in terms of the percentage of schools eligible for Title I, Part A funds and 5th 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 15th in terms of the percentage of all schools that are eligible for Title I funds and 5th 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 8th 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 15th. 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 11th highest in the nation to the 15th 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**

| | FY 1994 | | FY 2004 | | Percent Difference FY 1994 to FY 2004 | |
|---|---|---|---|---|---|---|
| Rank | 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 11th.
**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**

| | On School Property | | | | | | | | Anywhere | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Were in a Fight | | Were Threatened or Injured With Weapon | | Had Drugs Available to Them | | Used Alcohol | | Used Alcohol | |
| Rank | 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

| | On School Property | | | | | | | | Anywhere | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Were in a Fight | | Were Threatened or Injured With Weapon | | Had Drugs Available to Them | | Used Alcohol | | Used Alcohol | |
| Rank | 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 21st, and the other two were ranked 24th. 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 45th in terms of revenues per pupil. When revenues are adjusted for geographic differences in the cost of living, Kentucky rises to 41st.

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 45th with respect to unadjusted revenues per pupil. When revenues are adjusted, Kentucky rises to 41st.

**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

| Rank | State | Unadjusted $ | State | Cost-adjusted $ |
|---|---|---|---|---|
| 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 41st in terms of the percent of revenues from local sources but 12th (tied with California) in terms of the percent from federal sources and 13th 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 41st in terms of the percent of revenues from local sources but 12th (tied with California) in terms of the percent from federal sources and 13th in terms of the percent from state sources.

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

| | Federal Sources | | State Sources | | Local Sources | |
|---|---|---|---|---|---|---|
| **Rank** | **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**

| | Federal Sources | | State Sources | | Local Sources | |
|---|---|---|---|---|---|---|
| Rank | 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 12th 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.

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 43rd to 38th 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**

| | Per Pupil | | | | Per $1,000 in Personal Income | |
|---|---|---|---|---|---|---|
| Rank | 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 30th 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).

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

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

**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).

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).

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.

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.

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.

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 38th.

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 38th.

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

| | Instruction | | Support Services | | All Other Functions | |
|---|---|---|---|---|---|---|
| **Rank** | **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

| | Instruction | | Support Services | | All Other Functions | |
|---|---|---|---|---|---|---|
| Rank | 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 38th.
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 22nd 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 22nd place.

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

| | Instruction & Instruction Related | | Student Support Services | | Administration | | Operations | |
|---|---|---|---|---|---|---|---|---|
| Rank | 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 5th.
Source: U.S. Dept. of Ed. Natl. Ctr. *Revenues and Expenditures* 7.

# Chapter 3

## Student Assessment Data

### Introduction

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**

| ACT College Readiness Test Content Areas | Number of Multiple Choice Items |
|---|---|
| English | 75 |
| Math | 60 |
| Reading | 40 |
| Science | 40 |
| **Total** | **215** |

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.

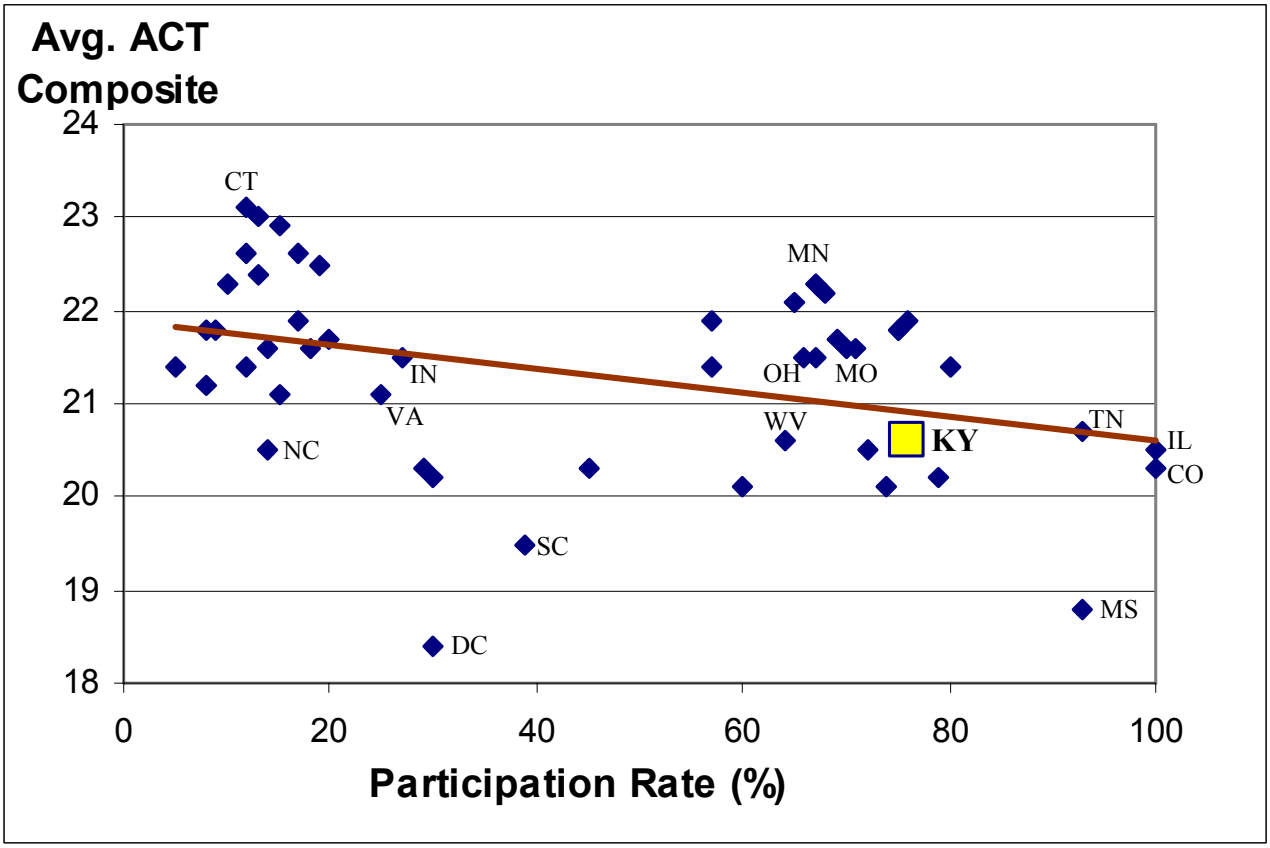
One important caveat when comparing average scores on the ACT across states is that the pool of test takers is very different in each state. Typically, the higher the participation rate, the lower the average score. In 2006, the two states that made the ACT mandatory for all high school students near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

ranked 42nd. 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.[5]

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.

[5] 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**

| | Participation | | Composite | | English | | Math | | Reading | | Science | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rank | 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 |

Continued on next page.

## 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 7th place among all states. Another example is a tie between Kentucky, Arkansas, Colorado, and Tennessee for 40th 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

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.

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.

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.

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 35th among all states. Kentucky ranks 23rd for improvement between 2000 and 2006.

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 35th. Kentucky is ranked 23rd 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 35th 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

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).

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").

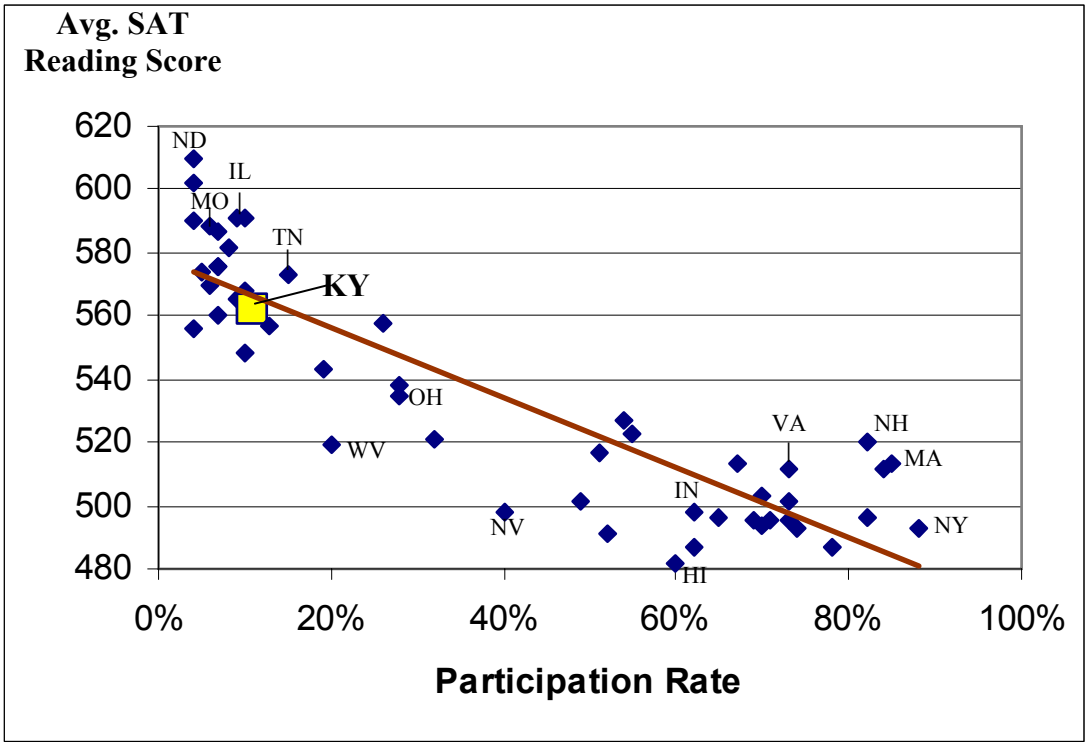
The SAT measures "critical reading, mathematical reasoning, and writing skills that students have developed over time and that they need to be successful in college" (College Board. "SAT Program"). SAT scores are intended to supplement the secondary school record and help college admission officers put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

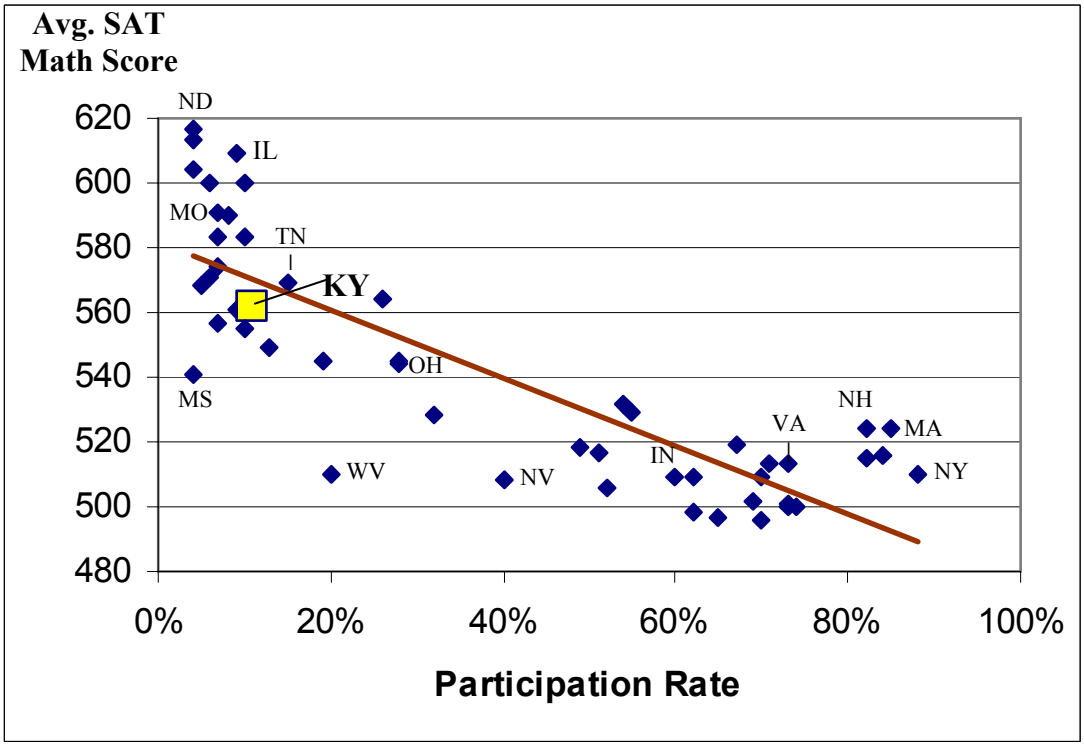
As is true of average ACT composite scores, average SAT scores are lower in states with higher participation rates.

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.[6]

[6] 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**

| | Participation | | Reading | | Math | | Writing | |
|---|---|---|---|---|---|---|---|---|
| Rank | 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

| | Participation | | | Reading | | | Math | | | Writing | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rank | 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 16th 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

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").

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.

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**

| Aspects of Reading |
|---|
| • Forming a general understanding: The reader must consider the text as a whole and provide a global understanding of it.<br>• Developing interpretation: The reader must extend initial impressions to develop a more complete understanding of what was read.<br>• Making reader/text connections: The reader must connect information in the text with knowledge and experience.<br>• Examining content and structure: This requires critically evaluating, comparing and contrasting, and understanding the effect of such features as irony, humor, and organization. |
| **Contexts** |
| • 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.<br>• Reading for information: Readers gain information to understand the world by reading materials such as magazines, newspapers, textbooks, essays, and speeches.<br>• 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. |

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 28th. However, many state differences are not statistically significant. Almost half of the other states were not significantly different from Kentucky.[7] 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.

[7] 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 24th 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**

| | Grade 4 | | | Grade 8 | | |
|---|---|---|---|---|---|---|
| Rank | 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 24th. 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 |
|---|
| • Number Properties and Operations<br>• Measurement<br>• Geometry (combined with Measurement in the grade 12 assessment)<br>• Data Analysis and Probability<br>• Algebra |
| **Levels of Complexity** |
| • Low-complexity item may ask a student to recall a property.<br>• Moderate-complexity item may ask a student to make a connection between two properties.<br>• High-complexity item may ask a student to analyze the assumptions made in a mathematical model. |

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 44th 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 38th. 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 44th 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**

| Areas of Knowledge and Skills |
|---|
| • Knowledge of facts<br>• Ability to integrate this knowledge into larger constructs<br>• Capacity to use the tools, procedures, and reasoning processes of science to develop an increased understanding of the natural world |
| **Fields of Science** |
| • Earth Science<br>• Physical Science<br>• Life Science |
| **Characteristic Elements of Knowing and Doing Science** |
| • Conceptual Understanding<br>• Scientific Investigation<br>• Practical Reasoning |

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$^{nd}$ 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**

| | Grade 4 | | | Grade 8 | | |
|---|---|---|---|---|---|---|
| Rank | 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 5th. 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

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.[8] 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

[8] 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*).

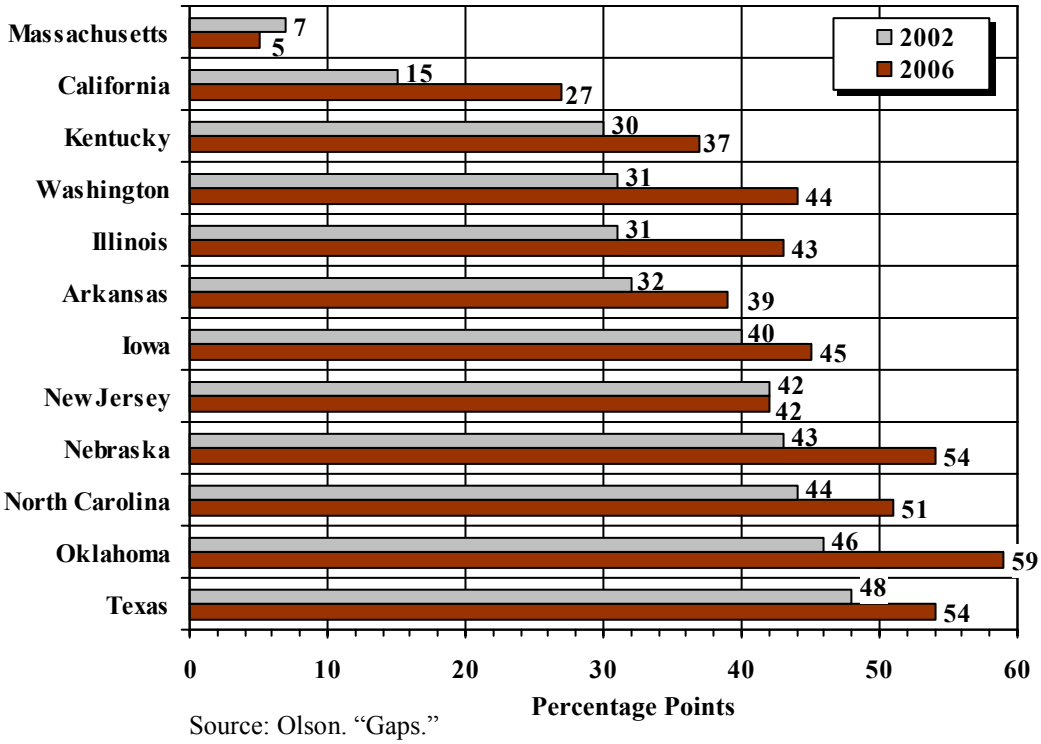
One concern is that the standards that define proficiency are set unreasonably high, a charge with which many testing critics agree (U.S. General; Rothstein; Pellegrino "Should NAEP"). Two recent studies suggest that even countries that score high on the Trends in International Mathematics and Science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




Source: Olson. "Gaps."

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

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*).

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*

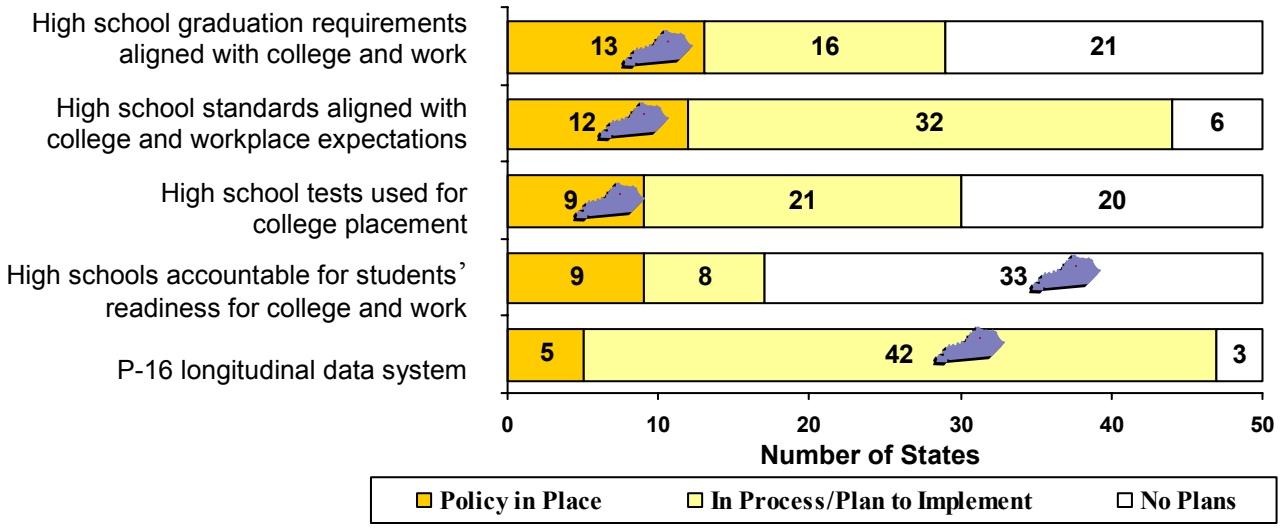
Achieve examines states' progress in closing the gap between high school expectations and college and work demands.

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.

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).

Kentucky ranks 33rd, 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 33rd. 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 | 6 |
| North Dakota | 83 | 57 | 41 | 25 | |
| Minnesota | 82 | 54 | 38 | 25 | |
| Wisconsin | 79 | 47 | 34 | 25 | |
| Rhode Island | 72 | 40 | 33 | 23 | 10 |
| Nebraska | 78 | 47 | 33 | 22 | 11 |
| Maine | 76 | 41 | 31 | 22 | |
| Virginia | 74 | 41 | 31 | 22 | |
| South Dakota | 78 | 44 | 30 | 21 | 14 |
| Vermont | 77 | 36 | 28 | 21 | |
| Indiana | 68 | 41 | 31 | 21 | |
| Delaware | 64 | 38 | 30 | 21 | |
| Illinois | 72 | 43 | 30 | 20 | 18 |
| Colorado | 70 | 42 | 29 | 20 | |
| Missouri | 73 | 40 | 27 | 20 | |
| Wyoming | 73 | 38 | 23 | 20 | |
| Maryland | 75 | 45 | 32 | 19 | 22 |
| Kansas | 75 | 43 | 27 | 19 | |
| Ohio | 70 | 40 | 29 | 19 | |
| 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 | 29 |
| Utah | 83 | 36 | 24 | 17 | |
| Arizona | 69 | 35 | 22 | 17 | |
| Tennessee | 61 | 38 | 26 | 16 | 32 |
| Arkansas | 74 | 42 | 27 | 15 | 33 |
| Kentucky | 65 | 39 | 26 | 15 | |
| Oregon | 69 | 33 | 23 | 15 | |
| Washington | 68 | 30 | 22 | 15 | |
| Idaho | 77 | 34 | 22 | 14 | 37 |
| West Virginia | 71 | 34 | 24 | 14 | |
| Florida | 53 | 32 | 24 | 14 | |
| Oklahoma | 73 | 36 | 23 | 13 | 40 |
| Texas | 64 | 35 | 22 | 13 | |
| Mississippi | 58 | 37 | 23 | 13 | |
| Louisiana | 59 | 33 | 23 | 13 | |
| Georgia | 56 | 34 | 24 | 13 | |
| South Carolina | 49 | 29 | 20 | 13 | |
| Hawaii | 65 | 34 | 22 | 12 | 46 |
| Alabama | 59 | 32 | 22 | 12 | |
| 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

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[1] | 8.7 | 7.9 | 38 |
| Infant mortality rate (deaths per 1,000 live births), 2003[1] | 6.9 | 6.9 | 27 |
| Child death rate (deaths per 100,000 children ages 1-14), 2003[2] | 25.0 | 21.0 | 36 |
| Teen death rate (deaths per 100,000 teens 15-19), 2003[2] | 75.0 | 66.0 | 31 |
| Teen birth rate (births to 15-19-year-olds per 1,000 females age 15-19), 2003[2] | 50.0 | 42.0 | 38 |
| Percent of teens age16-19 who are high school dropouts, 2004[1] | 10.0 | 8.0 | 41 |
| Percent of teens age 16-19 not attending school and not working, 2004[1] | 11.0 | 9.0 | 42 |
| Percent of children with no parent working full time, year-round, 2004[1] | 38.0 | 33.0 | 45 |
| Percent of children in poverty, 2004[1] | 25.0 | 18.0 | 46 |
| Percent of children in single-parent families, 2004[1] | 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*: [1] U.S. Centers for Disease Control and Prevention, Natl. Ctr. for Health Statistics; [2] 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.

*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$^{th}$ among all states on expenditures per capita and 31$^{st}$ as a percent of personal income.

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

| | State & Local Spending on Education, FY 2004 | | | | Pupil-Teacher ratio, FY 2004[2] | | Spending Per Pupil, FY 2005[3] | | Average Teacher Salary, FY 2005[3] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Per Capita[1] | | % of Personal Income[1] | | | | | | | |
| Rank | State | $ | State | % | State | Ratio | 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[2] | | | Spending Per Pupil, FY 2005[3] | | Average Teacher Salary, FY 2005[3] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Per Capita[1] | | % of Personal Income[1] | | | | | | | | | |
| | State | $ | State | % | | State | Ratio | | 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 29th place. Origins of data that appear in *Sourcebook*: [1] U.S. Census Bureau; [2] U.S. Dept. of Ed.; [3] 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

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*

*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.

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 7th and 10th, 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*).

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, 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).

Kentucky's graduation rate ranks 32nd 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 32nd 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 27th. † 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 38th 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 7th 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

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").

Kentucky ranks 41st 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 42nd 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**

| *State* | *Total Points Awarded* | *Rank* |
|---|---|---|
| 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) |
|---|---|---|---|---|
| **Family Income** (children in families with income at least 200% of poverty level)[1] | 53.7 | 59.8 | -2 | 39 |
| **Parent Education** (children with at least one parent with college degree)[1] | 37.2 | 42.5 | -2 | 39 |
| **Parental Employment** (children with at least one parent employed full time, year-round)[1] | 66.5 | 70.6 | -2 | 45 |
| **Linguistic Integration** (children whose parents speak fluent English)[1] | 97.0 | 84.3 | +2 | 8 |
| **Preschool Enrollment** (3- and 4-year-olds enrolled in preschool)[1] | 42.2 | 44.8 | 0 | 27 |
| **Kindergarten Enrollment** (eligible children enrolled in kindergarten)[1] | 75.2 | 75.3 | 0 | 24 |
| **Elementary Reading Achievement** (grade 4 students in public schools who score at or above "proficient")[2] | 30.8 | 29.8 | 0 | 28 |
| **Middle School Math Achievement** (grade 8 students in public schools who score at or above "proficient")[2] | 22.5 | 28.5 | -2 | 39 |
| **High School Graduation** (public high school students graduating on time with standard diploma[3] | 69.7 | 69.6 | 0 | 32 |
| **Postsecondary Participation** (adults ages 18-24 who have postsecondary credential or who are currently enrolled in postsecondary program)[1] | 43.5 | 47.8 | -2 | 34 |
| **Adult Educational Attainment** (adults 25-64 with associate degree or higher)[1] | 28.7 | 37.4 | -2 | 47 |
| **Annual Income** (employed adults 25-64 whose annual personal income reaches or exceeds national median of $34,351 in July 2005 dollars)[1] | 43.7 | 50.0 | -2 | 37 |
| **Steady Employment** (adults 25-64 working full time year-round)[1] | 67.4 | 67.2 | 0 | 28 |
| ***Chance for Success Index*** *(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*: [1]EPE analysis of data from the U.S. Census Bureau's American Community Survey, 2005; [2]Natl. Assessment of Educational Progress, Natl. Ctr. for Education Statistics, U.S. Dept. of Ed., 2005; [3]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*).

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.

Kentucky's rank of 8th 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**

The Achievement Index is composed of 15 measures. Kentucky ranks 34th, 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 34th 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**

| *State* | *Total Points Awarded* | *Rank* |
|---|---|---|
| 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[1] | 26.1 | 35.3 | -2 | 45 |
| NAEP Grade 8 Math Proficiency 2005[1] | 22.5 | 28.5 | -2 | 39 |
| NAEP Grade 4 Reading Proficiency 2005[1] | 30.8 | 29.8 | 0 | 28 |
| NAEP Grade 8 Reading Proficiency 2005[1] | 30.6 | 28.9 | 0 | 26 |
| NAEP Grade 4 Math Scale Score Percent Change 2003-05[1] | +2.8 | +3.1 | +1 | 30 |
| NAEP Grade 8 Math Scale Score Percent Change 2003-05[1] | -0.3 | +1.4 | 0 | 41 |
| NAEP Grade 4 Reading Scale Score Percent Change 2003-05[1] | +0.9 | +0.8 | 0 | 21 |
| NAEP Grade 8 Reading Scale Score Percent Change 2003-05[1] | -2.3 | -0.9 | 0 | 40 |
| NAEP Poverty Gap based on National School Lunch Program, 2005[1] | 18.4 | 26.7 | +2 | 44 |
| NAEP Poverty Gap Change 2003-05[1] | -4.1 | -1.7 | 0 | 45 |
| Graduation Rates, Public Schools, 2002-03[1] | 69.7 | 69.6 | 0 | 32 |
| Graduation Rate Change 2000-2003[1] | +6.1 | +2.9 | +2 | 4 |
| Advanced Placement Scores of 3+ per 100 Grade 11 & 12 Students[2] | 8.9 | 15.7 | -2 | 31 |
| Advanced Placement Scores of 3+ per100 Change 2000-2005[2] | +3.7 | +4.8 | +2 | 23 |
| "Bonus": NAEP Grade 8 Math—Advanced[1] | 3.4 | 5.6 | -2 | 39 |
| *Achievement Index* | *-1* | -- | *-1* | *34* |

Notes: Origins of data that appear in *Quality Counts 2007*: [1]Natl. Assessment of Educational Progress 2005; [2]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*).

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.

With respect to technology in education, Kentucky ranks 7th overall, 2nd on the capacity to use technology, 5th on the use of technology, and 22nd 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 7th overall, 2nd in terms of the capacity to use technology, 5th (tied with nine other states) on the use of technology, and 22nd (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. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |

Continued on next page.

**Table 4.12 continued**

| Rank | Overall Technology | | | Access to Technology | | | Use of Technology | | | Capacity To Use Tech. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 5th. 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).

Kentucky is above the national average on all technology access measures, ranking 13th on classroom computers, 9th on lab or media computers, 20th on students per computer, and 19th 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 13th on access to classroom computers, 9th on the percent of students with access to lab or media center computers, 20th on the student-computer ratio, and 19th 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[1] | | | Percent of Students with Computer in Lab or Media Center, 2005[1] | | | Students per Instructional Computer, 2006[2] | | | Students per High-speed Internet-connected Computer, 2006[2] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | |

Continued on next page.

**Table 4.13 continued**

| Rank | Percent of Students with Computer in Classroom, 2005[1] | | | Percent of Students with Computer in Lab or Media Center, 2005[1] | | | Students per Instructional Computer, 2006[2] | | | Students per High-speed Internet-connected Computer, 2006[2] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 9th 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*: [1]U.S. Dept. of Ed.; [2]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**

| 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 |
|---|---|---|---|---|---|---|
| 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 | ✓ | | | |

Continued on next page.

**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 | | | | |
| **Number of States with Each Policy in Place** | | | **48** | **4** | **23** | **23** |

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).

Kentucky's capacity to use technology is 2nd 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 2nd, 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 | ✓ | | ✓ | | | ✓[2] |
| | 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 | | | | | | |
| **Number of States With Each Policy in Place** | | | ***45*** | ***36*** | ***19*** | ***9*** | ***9*** | ***5*** |

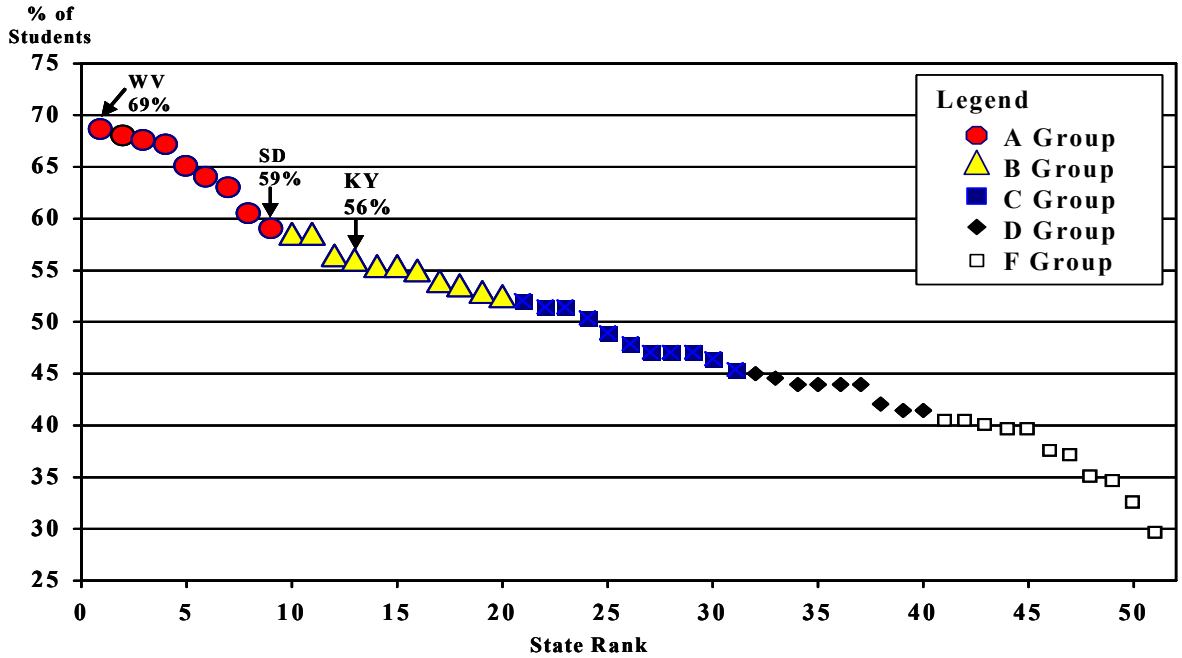
Notes: California requires technology-related professional development for principals of low-performing schools only. States with the same number of policies in place are assigned the same rank.
Source: Editorial. "Detailed State Data Comparisons."

## Caveats and Limitations

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

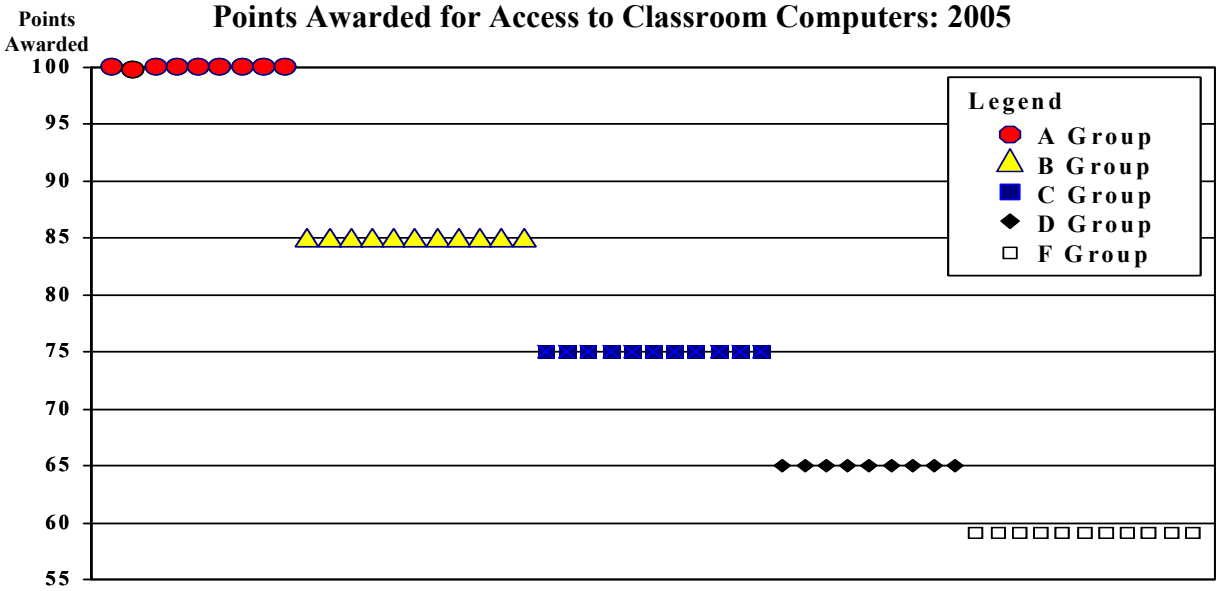
A methodology that uses arbitrary groupings can distort differences between states. For example, for each indicator of access to technology, states were forced into five approximately equal groups, representing grades A through F, and then awarded points. States in the A group received 100 points, B 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**




Source: Staff compilation using data from Editorial. "Detailed State Data Comparisons."

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




Source: Staff compilation using data from Editorial. "Detailed State Data Comparisons."

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.

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).

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

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."

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

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 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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**

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

Continued on next page.

## Table 4.17 continued

| *Indicators* | *Weight* | *KY Score* | *U.S. Avg.* | *Top 5 Avg.* | *KY Rank** |
|---|---|---|---|---|---|
| ***Affordability*** continued | | | | | |
| % of income needed to pay for expenses (minus financial aid) at community colleges,[1,3,7,8,9] FY 2006 | enroll-ment | 26% | 24% | 15% | 33 |
| % of income for expenses (minus financial aid) at public 4-year colleges/universities,[1,3,7,8,9] FY 2006 | enroll-ment | 30% | 31% | 16% | 25 |
| % of income needed to pay for expenses (minus financial aid) at private 4-year colleges/universities,[1,3,7,8,9] FY 2006 | enroll-ment | 61% | 72% | 32% | 26 |
| **Strategies for Affordability** | **40%** | | | | |
| State investment in need-based financial aid as compared to the federal investment,[3,8,9] FY 2006 | 20% | 42% | 40% | 89% | 15 |
| At lowest-priced colleges, the share of income that the poorest families need to pay for tuition,[1,3,7] FY 2006 | 20% | 24% | 16% | 7% | 38 |
| **Reliance on Loans** | **10%** | | | | |
| Average loan amount undergraduates borrow each year,[3] FY 2005 | 10% | $3,210 | $3,619 | $2,619 | 8 |
| ***Overall Score and Grade for Affordability*** | ***100%*** | ***51 F*** | ***52 F*** | ***67 D*** | ***27*** |
| ***Completion*** | | | | | |
| **Persistence** | **20%** | | | | |
| First-year community college students returning their second year,[3,5,7] Fall 2004 | 10% | 51% | 53% | 62% | 27 |
| Freshmen at 4-year colleges/universities returning for sophomore year,[3,5,7] Fall 2004 | 10% | 70% | 77% | 82% | 40 |
| **Completion** | **80%** | | | | |
| First-time, full-time students completing a bachelor's degree within 6 years of college entrance,[3] FY 2004 | 30% | 38% | 55% | 64% | 47 |
| Certificates, degrees, and diplomas awarded at all colleges and universities per 100 undergraduates,[3,10,11] FY 2004 | 50% | 17 | 17 | 20 | 23 |
| ***Overall Score and Grade for Completion*** | ***100%*** | ***78 C+*** | ***85 B*** | ***102 A*** | ***41*** |
| ***Benefits Of Education*** | | | | | |
| **Educational Achievement** | **37.5%** | | | | |
| Population ages 25 to 65 with a bachelor's degree or higher,[1,10,11] 2002 through 2004 | 37.5% | 23% | 30% | 37% | 43 |
| **Economic Benefits** | **31.25%** | | | | |
| Increase in total personal income as a result of % of population with a bachelor's degree,[1,10,11] 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,[1,10,11] 2003, 2004, and 2005 | 12.5% | 2% | 2% | 3% | 8 |
| **Civic Benefits** | **31.25%** | | | | |
| Residents voting in 2002 and 2004 national elections[1] | 10.5% | 54% | 51% | 64% | 19 |
| Of those who itemize on federal taxes, % with charitable gifts,[12] 2003 | 10.375% | 86% | 87% | 91% | 30 |
| Increase in volunteering rate as a result of college education,[1] 2003, 2004, and 2005 | 10.375% | 16% | 18% | 22% | 43 |
| ***Overall Score and Grade for Benefits*** | ***100%*** | ***78 C+*** | ***84 B*** | ***98 A*** | ***36*** |

Notes: *Rank is out of 50 unless otherwise noted. Origins of data that appear in *Measuring Up 2006*: [1]Census Bureau; [2]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; [3]U.S. Dept. of Ed.; [4]College Board; [5]ACT, Inc.; [6]Thomas Mortenson. "Chance for College by Age 19 by State in 2002." Postsecondary Education Opportunity Web site; [7]Natl. Ctr. for Higher Ed. Management Systems' special analysis of IPEDS Peer Analysis System data from Natl. Ctr. for Ed. Statistics; [8]Natl. Ctr. for Higher Ed. Management Systems' Annual Survey of State Grant Aid Programs; [9] Natl. Assoc. of State Student Grant and Aid Programs; [10] Pinkerton Computer Consultants; [11]Research Triangle Institute; [12]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

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

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).

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

**Per-student Expenditures.** When states are ranked by current expenditures per student, Kentucky ranks 30th, 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 | |
| 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†, 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 34th 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 34th. 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 43rd. However, in Table 4.18 of this compendium, NEA reports that Kentucky spends $7,906 per pupil and is ranked 30th.

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 34th. 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

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*

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 4th in terms of enrollment of 3-year-olds and 10th 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 4th in terms of percent of 3-year-olds who are enrolled and 10th 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.

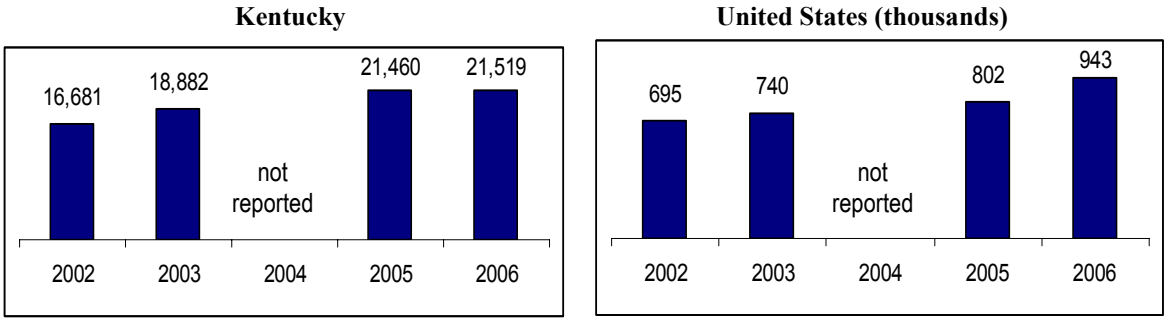
## Table 4.21 continued

| 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 7th. 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**



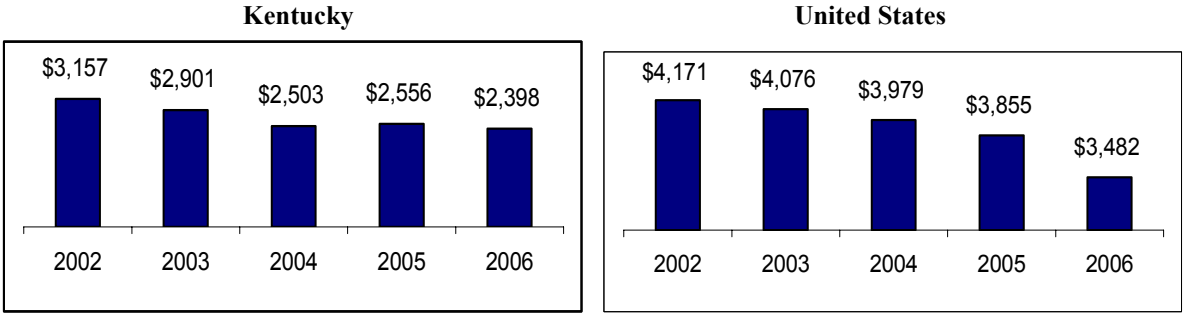

Source: Natl. Inst. *The State of Preschool 2006* 5, 73; *The State of Preschool 2005* 73, 160; *The State of Preschool 2004* 5, 99; *The State of Preschool 2003* 77.

## 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)**



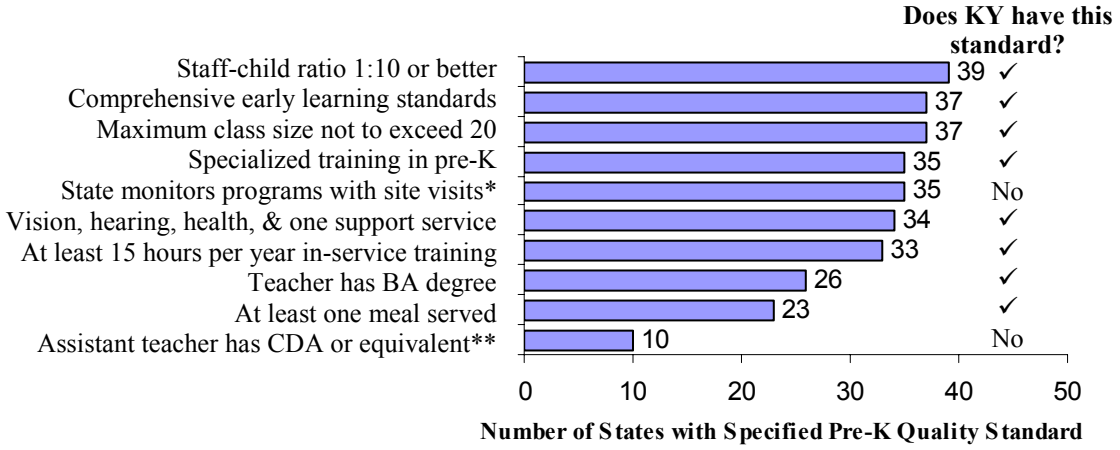

Source: Natl. Inst. *The State of Preschool 2006* 4, 72

## 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 9th.

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 9th. 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 |