

**Legislative Research Commission** 

# Compendium of State Education Rankings 2011

Research Report No. 387

Prepared by

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### **Compendium of State Education Rankings 2011**

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**Research Report No. 387** 

**Legislative Research Commission** 

Frankfort, Kentucky lrc.ky.gov

Accepted December 12, 2011, by the Education Assessment and Accountability Review Subcommittee

Paid for with state funds. Available in alternative format by request.

### Foreword

In December 2010, the Education Assessment and Accountability Review Subcommittee approved the Office of Education Accountability's 2011 research agenda, which included this edition of the *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 key public elementary and secondary education indicators. Compendiums are updated and issued annually.

Robert Sherman Director

Legislative Research Commission Frankfort, Kentucky December 2011

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### **Summary**

This compendium of state education rankings is intended as a reference tool comparing Kentucky's education indicators to those of the nation and selected peer states. While rankings are based on all 50 states and the District of Columbia, the data presented focus on Southern Regional Education Board member states and other states adjacent to Kentucky.

Rankings should be used with caution. A ranking on one measure is affected by state differences in other measures, such as student characteristics and costs of living. It is essential to examine the measures on which a set of rankings is based because rankings do not indicate how far apart states are from each other. When many states cluster closely together on a measure, small fluctuations can cause big changes in rankings.

### **Demographics**

With more than one-fourth of students living below the poverty level in 2010, Kentucky's student poverty rate was the seventh highest in the nation. Kentucky had the ninth highest proportion of students enrolled in rural schools. Although the number of Hispanic students has been increasing, they still made up only about 3 percent of students; 11 percent were black.

### **Student Services**

Because of Kentucky's small Hispanic population, only about 2 percent of students received English Learner services in 2010. However, Kentucky students had high rates of services for financially needy students; about 84 percent were enrolled in Title I schools, compared to a national rate of 65 percent, and about 55 percent were eligible for subsidized lunches, compared to 46 percent across the nation. Both of these measures have increased for Kentucky and the nation since the economic downturn. The percentage of students with disabilities that required Individualized Education Programs was about 16 percent; this is higher than the national rate of 13 percent, but it decreased slightly between 2009 and 2010, while the national rate increased.

### **Fiscal Matters**

Even after adjusting for geographic cost differences, Kentucky ranked 37<sup>th</sup> in revenues per pupil and current spending per pupil in 2008; however, unlike most states, Kentucky does not include school activity funds and some on-behalf payments when reporting revenues and expenditures. As the share of revenues from local sources gradually increases, Kentucky's share of revenues from state funds continued its gradual decline, from 60 percent 2002 to 57 percent in 2008. The state's proportion of spending dedicated to instruction mirrored that of the nation. As a result of mandated pay increases, Kentucky's average teacher salary rose from a rank of 36<sup>th</sup> in 2002 to a rank of 25<sup>th</sup> in 2008 and was on par with the national average.

Kentucky's student/teacher ratio in 2010 was 15.3 students per teacher; the slightly smaller ratio than the nation's (15.8) suggests that Kentucky students have a few more opportunities for individual attention than students in many other states. As for other staffing, relatively high numbers of instructional aides per student are likely due to Kentucky's high disability rates and

high enrollment in preschool and full-time kindergarten. High numbers of school administrators likely reflect the state's small rural schools as well as the inclusion of directors of Family Resource and Youth Services Centers, which do not exist in other states.

### **Student Achievement**

Kentucky's grade 4 and grade 8 National Education Assessment of Progress (NAEP) reading scores were significantly above the national averages in 2011. Kentucky was ranked 10<sup>th</sup> for grade 4 reading and 12<sup>th</sup> for grade 8 reading. Scores did not improve significantly between the 2009 and 2011 administrations of NAEP.

Average NAEP math scores in 2011 were statistically on par with those of the nation for both grades 4 and 8, and Kentucky ranked 24<sup>th</sup> and 35<sup>th</sup>, respectively. Scores did not improve significantly between 2009 and 2011.

Kentucky students' rate of participation in Advanced Placement exams almost doubled between 2002 and 2010, from 12.6 percent of students to 24.4 percent. Similarly, the percentage of students succeeding in earning qualifying scores almost doubled, from 6.5 percent in 2002 to 12.2 percent in 2010. Kentucky ranked 26<sup>th</sup> in AP participation and 30<sup>th</sup> in passing scores.

Since 2009, Kentucky's average ACT scores have been lower than in previous years as a consequence of a new policy requiring all students to take the ACT exam whether they are interested in college or not. On the composite, which combines all subjects, Kentucky's overall rank was 48<sup>th</sup> in 2011. The highest rank was 46<sup>th</sup> for the science portion of the ACT. Since Kentucky began administering the ACT to all students, average scores have ranked low relative to all states. However, when compared to other states that administer the ACT to most or all students, Kentucky's average scores are within 2 points of the highest average score.

In 2009, Kentucky's high school seniors had the 23<sup>rd</sup> highest Averaged Freshman Graduation Rate (AFGR), with an estimated 77.6 percent of students graduating, compared to a national rate of 75.5 percent. While Kentucky currently reports the AFGR, a cohort graduation rate will be reported beginning in 2014.

### Chapter 1

### Introduction

In December 2010, the Education Assessment and Accountability Review Subcommittee approved the 2011 study plan of the Office of Education Accountability (OEA), which included the annual *Compendium of State Education Rankings*. This publication is intended to provide a reference tool for legislators and the general public regarding how Kentucky's education indicators compare to those of the nation and selected peer states. While rankings are based on all 50 states and the District of Columbia, only the peer states are shown.

#### **Peer States**

This compendium compares Kentucky to its fellow members of the Southern Regional Education Board and to other states adjacent to Kentucky. The Southern Regional Education Board member states are Alabama (AL), Arkansas (AR), Delaware (DE), Florida (FL), Georgia (GA), Louisiana (LA), Maryland (MD), Mississippi (MS), North Carolina (NC), Oklahoma (OK), South Carolina (SC), Tennessee (TN), Texas (TX), Virginia (VA), West Virginia (WV). Border states that are not members are Illinois (IL), Indiana (IN), Missouri (MO), and Ohio (OH).

### **Organization of the Compendium**

Rankings are grouped into the four areas described below. While additional data are available and useful, the data chosen were deemed to be the most salient education indicators. OEA invites feedback for future editions. Comparisons among school districts within Kentucky are available in a separate report (Commonwealth. Legislative. Office. *Kentucky*).

- **Demographics.** Chapter 2 provides data on child poverty, family income, rural locale, students' racial composition, and states' age composition.
- **Student Services.** Chapter 3 presents information on English Learner services, Individualized Education Programs, Title I school enrollment, and National School Lunch Program eligibility.
- **Fiscal Matters.** Chapter 4 covers revenues, current spending, teacher salaries, student/teacher ratios, and other staffing rates.
- **Student Achievement.** Chapter 5 presents the results of the National Assessment of Educational Progress reading and math exams, the ACT, and Advanced Placement exams, as well as graduation rates.

### Use of the State Rankings

Rankings should be used with caution. A ranking on one measure is affected by state differences in other measures, such as student characteristics. It is essential to examine the measures on which a set of rankings is based because rankings do not indicate how far apart states are from each other. When many states cluster closely together on a measure, small fluctuations can cause big changes in rankings.

Depending on the data being ranked, a high ranking can be good, bad, or neutral. For example, high rankings on family income and low rankings on poverty rates are preferable. On the other hand, high rankings on rural school enrollment are neither good nor bad, though they have policy implications.

Unless otherwise noted, rankings reported in this compendium are out of 51—the 50 states and the District of Columbia. When two or more states have the same value, they are assigned the same rank and are listed in alphabetical order. If data are not available for all states, the US entry summarizes all available data.

Year refers to the ending year of the school year; for example, 2011 refers to the 2010-2011 school year. In most states, school years correspond to fiscal years, which begin July 1 and end June 30.

An em dash (—) indicates that data were not available because they were not collected, not reported, or not reliable. In contrast, N/A indicates that a measure does not apply. For example, N/A appears in place of a state rank for the US. In tables that show the statistical significance of differences between other states and Kentucky, N/A appears in the significance column for Kentucky itself.

Data based on samples are subject to sampling error. Each difference between Kentucky and another state was tested for statistical significance with a 95 percent confidence level; > indicates states that were significantly higher than Kentucky, = indicates states not significantly different from Kentucky, and < indicates states that were significantly lower than Kentucky. Statistical tests used unrounded percentages and took into account each state's sample size and variance; therefore, states with the same percentages can have different levels of significance.

Because costs vary from state to state, staff adjusted fiscal measures using the Comparable Wage Index (CWI) produced by the National Center for Education Statistics. However, the index has not been updated beyond 2005; in keeping with common research practices, this compendium uses the 2005 CWI index values to adjust data for 2005 and all subsequent years.

Finally, it should be noted that data from different sources may not match exactly, even when they purport to measure the same thing in the same year. Differences may reflect slightly different definitions or revisions made after data were reported.

### Chapter 2

### **Demographics**

The impact of socioeconomic and other demographic factors on academic performance is well documented. Examining the demographics of Kentucky's student population is crucial for understanding the state's needs.

### **Child Poverty**

Official poverty rates, determined by income thresholds for specified numbers and ages of family members, are essential for many purposes, but they have several limitations. They do not account for rising costs, nor do they reflect medical, food, and housing subsidies. Because one set of income thresholds is used for the entire nation, poverty is overstated where costs of living are lower and understated where costs are higher. A new poverty measure to overcome some limitations of the official measure shows lower poverty rates for children and for the Midwest and the south, but this new measure is not official (US. Dept. of Commerce. Census. "Characteristics" 7, "Poverty—How," and Poverty Measurement).

As Table 2.1 shows, child poverty rates are rising, and Kentucky's rate continues to be among the highest. In 2010, Kentucky ranked seventh, with more than one-fourth of children in poverty.

			0				·			<i>.</i>	, ,	·		
	1999			200	8			200	)9			201	0	
Rank	State	%	Rank	State	%	Sig.	Rank	State	%	Sig.	Rank	State	%	Sig.
2	MS	19.9	1	MS	30.4	>	1	MS	31.0	>	1	MS	32.5	>
3	LA	19.6	3	AR	24.9	=	3	AR	27.2	=	4	AL	27.7	=
5	WV	17.9	4	LA	24.7	=	4	KY	26.0	N/A	5	AR	27.6	=
6	AL	16.1	6	KY	24.0	N/A	6	AL	24.7	=	6	LA	27.3	=
7	AR	15.8	7	WV	23.0	=	7	SC	24.4	=	7	KY	26.3	N/A
7	KY	16.0	8	OK	22.6	=	8	ΤX	24.4	=	8	SC	26.1	=
9	ΤX	15.4	9	ΤX	22.5	=	9	LA	24.2	=	9	ΤX	25.7	=
10	OK	14.7	10	TN	21.8	<	10	ΤN	23.9	<	9	TN	25.7	=
14	SC	14.1	11	AL	21.7	<	11	WV	23.6	<	11	WV	25.5	=
16	ΤN	13.5	12	SC	21.7	<	14	NC	22.5	<	12	NC	24.9	=
18	GA	13.0	15	GA	20.1	<	15	GA	22.3	<	13	GA	24.8	=
19	FL	12.5	16	NC	19.9	<	16	OK	22.2	<	14	OK	24.7	=
N/A	US	12.0	19	MO	18.6	<	17	OH	21.9	<	16	FL	23.5	<
19	NC	12.3	20	OH	18.5	<	19	FL	21.3	<	18	OH	23.3	<
23	MO	11.7	22	FL	18.3	<	20	MO	20.7	<	21	IN	21.7	<
28	IL	10.7	23	IN	18.3	<	21	IN	20.0	<	N/A	US	21.6	<
30	OH	10.6	N/A	US	18.0	<	N/A	US	20.0	<	24	MO	20.9	<
36	VA	9.6	26	IL	17.0	<	25	IL	18.9	<	26	IL	19.4	<
37	IN	9.5	37	VA	13.8	<	35	DE	16.5	<	35	DE	18.1	<
43	DE	9.2	38	DE	13.6	<	40	VA	13.9	<	43	VA	14.5	<
46	MD	8.5	49	MD	10.2	<	50	MD	11.6	<	48	MD	13.0	<

Table 2.1Children Living Below Federal Poverty Line, 1999, 2008, 2009, and 2010

Notes: > indicates significantly higher than Kentucky, = indicates not significantly different from Kentucky, and < indicates significantly lower than Kentucky. The 1999 census data are not subject to sampling error. Sources: US. Dept. of Commerce. Census. "Decennial" and American.

### **Family Income**

Table 2.2 presents the median family income in each state. Dollar figures shown are not comparable across years because they are not adjusted for inflation; however, rankings can be compared. A family is two or more people residing together who are related by birth, marriage, or adoption. Income includes money from all sources, including public assistance, child support, unemployment insurance, interest, dividends, and pensions.

From 1999 to 2010, Kentucky was consistently among the bottom 10 states with respect to median family income. In 2010, Kentucky's median family income was just over \$50,000, while the US median was over \$60,000.

	1999			20	08			20	09			2010		
Rank		\$	Rank	State	\$	Sig.	Rank		\$	Sig.	Rank		\$	Sig.
3	MD	61,876	3	MD	84,415	>	1	MD	84,254	>	1	MD	83,137	>
10	IL	55,545	8	VA	73,192	>	8	VA	71,270	>	9	VA	72,476	>
11	DE	55,257	14	IL	68,958	>	14	DE	67,582	>	11	DE	68,746	>
12	VA	54,169	15	DE	68,745	>	17	IL	66,806	>	18	IL	65,417	>
21	IN	50,261	N/A	US	63,366	>	N/A	US	61,082	>	N/A	US	60,609	>
N/A	US	50,046	31	GA	60,268	>	31	OH	57,360	>	31	ТΧ	56,575	>
22	OH	50,037	33	OH	60,061	>	33	ТΧ	56,607	>	32	OH	56,518	>
24	GA	49,280	34	IN	59,380	>	35	IN	56,432	>	33	MO	56,214	>
31	NC	46,335	35	ΤX	58,765	>	36	MO	56,318	>	35	IN	55,368	>
33	MO	46,044	36	MO	58,088	>	37	GA	56,176	>	37	GA	55,209	>
34	ТΧ	45,861	38	FL	57,455	>	39	NC	54,288	>	39	FL	53,093	>
36	FL	45,625	40	NC	56,588	>	40	FL	53,509	>	40	NC	52,920	>
38	SC	44,227	41	SC	55,664	>	41	LA	53,427	>	41	LA	52,456	>
40	ΤN	43,517	43	AL	54,270	>	42	SC	52,406	>	43	OK	51,958	>
43	AL	41,657	44	LA	53,963	>	43	OK	52,403	>	44	SC	51,704	>
44	KY	40,939	45	OK	53,862	>	46	TN	51,344	>	45	TN	51,083	>
45	OK	40,709	46	TN	53,799	>	47	AL	50,779	>	47	AL	50,429	=
47	LA	39,774	48	KY	51,729	N/A	48	KY	49,801	N/A	48	KY	50,392	N/A
49	AR	38,663	49	WV	49,082	<	49	WV	47,659	<	49	WV	48,927	=
50	MS	37,406	50	AR	47,648	<	50	AR	46,868	<	50	AR	47,049	<
51	WV	36,484	51	MS	46,668	<	51	MS	45,601	<	51	MS	45,484	<

Table 2.2Median Family Income in Nominal Dollars, 1999, 2008, 2009, and 2010

Notes: > indicates significantly higher than Kentucky, = indicates not significantly different from Kentucky, and < indicates significantly lower than Kentucky. The 1999 census data are not subject to sampling error. Sources: US. Dept. of Commerce. Census. "Decennial" and American.

### **Rural Schools**

The US Department of Education works with the US Census Bureau to classify school and district locations as rural, town, suburb, or city. Their approach to classification changes somewhat over time, so caution should be used when comparing trends over time. However, states are comparable within a given year.

As Table 2.3 shows, a high proportion of Kentucky students are enrolled in rural schools. In 2010, Kentucky ranked ninth, with about 44 percent of students enrolled in rural schools, compared to 25 percent for the nation. Kentucky's rural enrollments and state rankings have changed little since 2004.

	2004		•			2009		•	2010				
Rank	State	%		Rank	State	%	Rank	State	%	•	Rank	State	%
3	MS	46.8		3	NC	47.2	3	MS	49.6		3	MS	51.1
4	AL	45.6		4	MS	46.7	4	AL	47.5		4	AL	47.6
5	NC	45.0		6	AL	40.7	5	NC	46.3		5	WV	46.9
7	WV	44.4		7	WV	40.2	7	WV	45.0		6	NC	46.8
9	KY	42.6		9	KY	39.0	9	SC	43.6		8	SC	44.7
10	AR	40.6		10	AR	37.6	10	KY	43.3		9	KY	43.5
12	SC	39.5		13	SC	35.5	11	AR	42.6		11	AR	42.1
14	TN	35.8		14	TN	34.6	12	ΤN	38.8		12	ΤN	39.8
15	OK	34.1		16	GA	31.2	16	OK	35.3		17	GA	36.1
19	GA	31.9		17	OK	30.9	17	GA	35.0		19	OK	35.3
23	IN	30.3		18	VA	30.6	21	MO	32.5		22	MO	33.1
24	MO	30.0		23	MO	25.8	23	LA	31.6		23	IN	32.0
25	LA	28.7		24	OH	25.5	24	IN	31.3		24	LA	31.4
26	VA	27.9		25	IN	24.5	26	VA	30.6		25	VA	31.1
30	OH	24.4		31	LA	19.3	29	OH	26.4		30	OH	26.6
N/A	US	21.3		N/A	US	19.0	N/A	US	24.0		N/A	US	24.5
34	ΤX	17.5		34	ΤX	14.8	32	DE	23.4		31	DE	24.5
38	MD	17.0		37	IL	11.8	34	ΤX	23.2		34	ΤX	23.8
40	DE	15.9		41	MD	10.1	37	FL	18.8		38	FL	19.5
43	FL	13.5		43	FL	8.4	39	MD	18.1		39	MD	18.0
46	IL	11.7		45	DE	6.3	43	IL	14.3		43	IL	14.4

Table 2.3Students Enrolled in Rural Schools, 2004, 2008, 2009, and 2010

Sources: US. Dept. of Ed. Inst. Natl. Numbers and Status.

### **Racial Diversity of Students**

State education agencies, such as Kentucky's Department of Education, report student enrollments in categories defined by race and ethnicity. White indicates origins in Europe, North Africa, or the Middle East. Black indicates origins in a black racial group of Africa. Hispanic includes origins in Mexico, Puerto Rico, Cuba, Central or South America, or other culture with Spanish heritage. Other includes Asians, Pacific Islanders, American Indians, and Alaska Natives.

While Kentucky's urban areas have some racial diversity, Table 2.4 shows that the rate of minority student population for the Commonwealth as a whole is lower than that of the US. In 2010, about 82 percent of Kentucky students were identified as white, compared to just 40 percent of the nation's enrollment. Between 2000 and 2010, Kentucky's percentage of Hispanic students quadrupled, but it was still relatively small at 3.2 percent. The decade's decline in the percentage of white students and steady percentage of black students mirrored national trends.

			I	Percenta	age of V	Nh	ite, Non	-Hispar	nic				
	2000			2008				2009		2010			
Rank	State	%	Rank	State	%		Rank	State	%	Rank	State	%	
4	WV	94.8	3	WV	93.0		3	WV	93.0	3	WV	92.4	
8	KY	88.1	6	KY	85.0		6	KY	84.7	7	KY	82.3	
14	IN	84.3	12	IN	78.9		13	OH	78.4	14	MO	75.7	
18	OH	81.1	14	OH	78.6		14	IN	78.3	16	OH	74.9	
20	MO	79.7	17	MO	76.1		16	MO	76.0	17	IN	74.3	
26	ΤN	72.9	25	ΤN	68.6		25	ΤN	68.3	23	ΤN	68.2	
27	AR	72.2	27	AR	67.0		27	AR	66.6	25	AR	65.3	
30	OK	66.2	30	AL	58.9		30	AL	58.8	30	AL	58.4	
31	VA	64.3	31	VA	58.6		31	VA	58.2	31	OK	56.4	
N/A	US	62.1	32	OK	58.1		32	OK	57.3	32	VA	56.0	
33	NC	61.8	34	NC	56.8		N/A	US	55.2	33	NC	53.8	
34	DE	61.6	N/A	US	56.0		34	IL	54.3	N/A	US	53.5	
35	AL	61.1	35	IL	55.4		34	NC	54.3	34	SC	53.4	
37	IL	60.7	37	SC	53.7		37	SC	53.8	37	IL	52.6	
39	GA	55.5	38	DE	53.0		38	DE	52.1	38	DE	51.6	
41	SC	55.2	40	LA	49.2		40	LA	48.8	40	LA	48.5	
42	FL	54.3	41	FL	47.6		41	GA	47.2	41	MS	46.1	
42	MD	54.3	42	GA	47.5		42	FL	47.0	42	MD	45.5	
45	LA	49.2	43	MD	47.0		43	MS	46.3	43	GA	45.0	
46	MS	47.5	44	MS	46.4		44	MD	46.2	44	FL	44.3	
47	ΤX	43.1	47	ΤX	34.8		47	ΤX	34.0	47	ΤX	33.3	

Table 2.4
Racial Composition of Students, 2000, 2008, 2009, and 2010

Continues on next page.

### Table 2.4 (cont.)

### Percentage of Black, Non-Hispanic

							, , ,		-				
	2000	2008						2009		2010			
Rank	State	%	Rank	State	%		Rank	State	%	Rank	State	%	
2	MS	51.0	2	MS	50.6		2	MS	50.5	2	MS	50.1	
3	LA	47.6	3	LA	46.0		3	LA	46.1	3	LA	46.0	
4	SC	42.2	4	SC	39.3		4	GA	39.0	4	SC	38.2	
5	GA	38.2	5	GA	39.2		5	SC	38.8	5	MD	37.9	
6	MD	36.8	6	MD	37.9		6	MD	38.0	6	GA	37.4	
7	AL	36.4	7	AL	35.6		7	AL	35.3	7	AL	34.9	
8	NC	31.3	8	DE	33.0		8	DE	33.2	8	DE	33.3	
9	DE	30.6	9	NC	29.0		9	NC	31.2	9	NC	31.0	
10	VA	27.2	10	VA	26.6		10	VA	26.4	10	VA	25.4	
11	FL	25.4	11	TN	24.8		11	TN	24.6	11	TN	24.3	
12	TN	24.4	12	FL	23.9		12	FL	24.0	12	FL	23.1	
13	AR	23.5	13	AR	22.6		13	AR	22.4	13	AR	21.9	
14	IL	21.3	15	IL	19.9		15	IL	20.0	16	IL	18.9	
18	MO	17.3	17	MO	17.9		17	MO	17.8	17	MO	17.8	
N/A	US	17.2	19	OH	17.1		N/A	US	17.0	N/A	US	16.5	
19	OH	16.1	N/A	US	17.0		19	OH	16.9	19	OH	16.3	
21	ΤX	14.4	21	ΤX	14.3		21	ΤX	14.2	22	ΤX	13.3	
23	IN	11.5	23	IN	12.7		23	IN	12.8	23	IN	12.2	
24	OK	10.7	25	KY	11.0		25	KY	11.0	25	OK	11.0	
25	KY	10.5	26	OK	10.8		26	OK	10.9	26	KY	10.7	
38	WV	4.2	38	WV	5.2		38	WV	5.4	37	WV	5.3	

### Percentage of Hispanic

	2000			2008		-		2009			2010	
Rank	State	%	Rank	State	%	-	Rank	State	%	Rank	State	%
3	ΤX	39.6	3	ΤX	47.2	-	3	ΤX	47.9	2	ΤX	50.2
8	FL	18.2	7	FL	25.7		7	FL	26.1	7	FL	26.3
N/A	US	15.6	N/A	US	21.0		N/A	US	22.0	N/A	US	22.1
10	IL	14.6	9	IL	20.4		9	IL	21.3	9	IL	21.1
22	DE	5.4	20	DE	10.4		20	DE	10.9	22	DE	11.3
22	OK	5.4	21	NC	10.3		22	NC	10.6	22	GA	11.3
25	MD	4.4	22	GA	10.0		23	OK	10.5	24	OK	11.2
26	VA	4.3	22	OK	10.0		25	GA	10.4	25	NC	11.1
29	GA	4.0	26	MD	9.0		26	MD	9.5	26	MD	10.0
30	NC	3.7	27	VA	8.8		27	VA	9.2	27	VA	9.4
34	IN	3.1	28	AR	8.1		28	AR	8.6	28	AR	9.2
35	AR	3.0	31	IN	6.8		31	IN	7.1	32	IN	7.1
38	MO	1.6	35	SC	5.1		35	SC	5.5	35	SC	5.7
38	OH	1.6	36	TN	4.9		36	TN	5.2	36	TN	5.5
41	SC	1.5	39	MO	3.7		39	AL	3.9	39	AL	4.2
41	TN	1.5	40	AL	3.5		39	MO	3.9	40	MO	4.1
43	LA	1.3	42	KY	2.7		42	KY	3.0	42	KY	3.2
46	AL	1.1	42	OH	2.7		43	LA	2.9	42	LA	3.2
47	KY	0.8	42	LA	2.7		44	OH	2.8	44	OH	2.9
48	MS	0.6	48	MS	1.9		48	MS	2.1	48	MS	2.2
51	WV	0.4	51	WV	0.9		51	WV	0.9	51	WV	1.0

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				Perce	ntage o	i All Othe	er Races				
	2000			2008			2009			2010	
Rank	State	%	Rank	State	%	Rank	State	%	Rank	State	%
3	OK	17.7	3	OK	21.1	3	OK	21.4	3	OK	21.5
N/A	US	5.4	12	VA	8.3	13	VA	8.8	13	VA	9.2
17	MD	4.5	N/A	US	7.5	N/A	US	7.8	N/A	US	8.0
21	VA	4.1	17	NC	7.2	18	IL	6.8	19	IL	7.3
25	IL	3.4	19	IL	6.9	19	FL	6.6	20	MD	6.6
27	NC	3.3	20	FL	6.3	19	GA	6.6	21	FL	6.3
29	AL	2.9	21	GA	6.1	21	MD	6.3	21	GA	6.3
29	ΤX	2.9	22	MD	6.0	23	IN	5.8	21	IN	6.3
32	DE	2.4	23	IN	5.5	24	OH	5.5	24	OH	5.9
33	GA	2.3	27	OH	5.0	31	NC	4.0	34	NC	4.1
35	FL	2.1	32	ΤХ	3.8	32	ΤХ	3.9	34	ΤХ	4.1
37	LA	1.9	35	DE	3.5	36	DE	3.7	37	DE	3.8
39	KY	1.6	39	KY	3.0	37	KY	3.4	37	KY	3.8
39	TN	1.6	42	AL	2.3	42	AL	2.4	39	AR	3.6
43	MO	1.4	42	AR	2.3	42	SC	2.4	43	SC	2.6
45	AR	1.3	42	SC	2.3	45	AR	2.3	44	AL	2.5
46	OH	1.2	46	LA	2.2	45	MO	2.3	45	MO	2.4
47	IN	1.1	46	MO	2.2	47	LA	2.2	47	LA	2.3
47	SC	1.1	48	ΤN	1.8	48	TN	1.9	48	TN	2.0
49	MS	0.8	50	MS	1.1	50	MS	1.1	50	MS	1.6
50	WV	0.6	51	WV	0.8	51	WV	0.8	51	WV	1.3

Table 2.4 (cont.)

Percentage of All	<b>Other Races</b>
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Note: In AK, CA, MA, NJ, and VT, the all other races category includes those of mixed race. Source: US. Dept. of Ed. Inst. Natl. *Common*.

### Chapter 3

### **Student Services**

This chapter compares Kentucky to peer states and to the nation with respect to selected student services. Some services are based on financial need; others are based on educational needs, such as language barriers or disabilities. Because of the high proportion of disadvantaged students in Kentucky, many receive services.

### **English Learner Services**

An English learner (EL), also called a student with limited English proficiency, comes from an environment in which a language other than English has had a significant impact on the ability to understand English. Federal funds provided by Title III of the Elementary and Secondary Education Act—reauthorized as the No Child Left Behind Act of 2001—support screening, curricula, instruction, professional development, and community and parent outreach programs. In addition, since FY 2006, Kentucky's state budget has provided funds for limited English proficiency in the Support Education Excellence in Kentucky (SEEK) funding formula, the mechanism for distributing state funds to districts.

Table 3.1 ranks states by the percentage of students receiving EL services. However, year-toyear comparability is somewhat compromised by missing data for different sets of states in each year. EL data were not reported by two states in 2002, five states in 2008, and five states in 2009. All states reported in 2010. Missing data affect the rankings and the US average, especially when the states with missing data have large Hispanic populations; for example, 2008 data are missing for California and 2009 data are missing for New Mexico.

In 2002, less than 1 percent of the Kentucky's students received EL services, compared to about 8 percent for the US. By 2010, the percentage of Kentucky students receiving EL services had more than doubled but was still small, at 2.1 percent, and Kentucky ranked 45<sup>th</sup>.

0 0							, ,	, ,			
	2002			2008			2009			2010	
Rank	State	%	Rank	State	%	Rank	State	%	Rank	State	%
5	ΤX	14.5	7	ΤX	9.7	3	ΤX	15.1	4	ΤX	15.0
11	FL	8.2	9	NC	8.7	8	IL	9.7	N/A	US	15.0
N/A	US	8.1	9	FL	8.7	N/A	US	9.3	9	FL	8.8
16	IL	6.6	14	IL	7.4	10	FL	8.6	10	IL	8.5
18	OK	6.0	16	VA	6.9	14	NC	7.6	17	NC	7.2
23	GA	4.3	N/A	US	6.5	17	VA	7.0	18	VA	7.0
25	NC	4.0	21	DE	5.9	21	AR	5.8	21	AR	6.2
25	IN	4.0	21	OK	5.9	22	DE	5.7	22	DE	6.1
27	MD	3.8	24	AR	5.4	26	GA	5.0	23	OK	6.0
29	VA	3.7	27	GA	4.9	27	IN	4.4	27	GA	5.2
33	AR	2.9	30	IN	4.4	27	SC	4.4	29	MD	5.1
37	DE	2.6	33	AL	2.8	35	TN	2.8	30	SC	4.8
39	LA	1.5	36	TN	2.7	36	AL	2.6	31	IN	4.7
42	AL	1.0	39	KY	1.9	39	KY	2.2	38	TN	2.8
42	SC	1.0	39	OH	1.9	40	OH	2.0	40	AL	2.6
44	KY	0.9	39	SC	1.9	41	LA	1.8	44	MO	2.2
44	MO	0.9	44	LA	1.3	41	MO	1.8	45	OH	2.1
46	MS	0.5	45	MS	1.1	45	MS	1.3	45	KY	2.1
47	WV	0.3	46	WV	0.8	46	WV	0.6	47	LA	1.9
48	OH	0.0		MD			MD		50	MS	1.2
48	TN	0.0		MO			OK		51	WV	0.6

Table 3.1Students Receiving English Learner Services, 2002, 2008, 2009, and 2010

Notes: Data were not available for ND and PA in 2002; CA, NJ, SD, MO, and MD in 2008; and MD, ME, NM, OK, RI in 2009.

Source: US. Dept. of Ed. Inst. Natl. Common.

#### **Students With Individualized Education Programs**

An individualized education program (IEP) is a written instructional plan that the Individuals with Disabilities Education Act requires for each student with an identified disability. The intent is to tailor the IEP to each student's unique needs, in collaboration with the student's parents (US. Dept. of Ed. Inst. Natl. *CCD*). The severity and nature of disabilities vary widely and include speech difficulties, attention deficit/hyperactivity disorder, and severe cognitive disabilities. The IEP creates an opportunity for teachers, parents, school administrators, related services personnel, and students to work together to improve educational results for students with disabilities.

As Table 3.2 shows, the percentage of students with IEPs in Kentucky dropped slightly, from 16.1 percent in 2009 to 15.6 percent in 2010. At the same time, the US rate increased slightly from 12.7 percent to 13.1 percent.

	2002			2008		2009				2010	
Rank	State	%	Rank	State	%	Rank	State	%	Rank	State	%
3	WV	17.7	3	IN	17.1	4	IN	16.8	5	IN	16.4
6	IN	16.1	4	WV	16.7	7	WV	16.5	7	WV	16.3
7	TN	15.9	6	KY	16.4	9	KY	16.1	10	KY	15.6
11	MO	15.4	9	DE	15.9	13	DE	15.1	11	DE	15.3
12	FL	15.1	11	IL	15.3	15	IL	15.0	13	OH	14.9
13	KY	15.0	12	MO	15.1	16	OH	14.6	13	IL	14.9
16	SC	14.6	13	OH	15.0	16	FL	14.6	16	OK	14.5
17	IL	14.4	14	OK	14.8	18	MO	14.5	20	FL	14.2
19	NC	14.2	15	FL	14.6	22	SC	14.1	20	MO	14.2
20	VA	14.1	17	SC	14.5	31	AR	13.5	25	SC	14.0
20	OK	14.1	26	AR	13.8	31	VA	13.5	31	AR	13.5
22	DE	13.9	28	VA	13.7	N/A	US	12.7	32	VA	13.2
25	LA	13.4	31	MS	13.2	33	NC	12.6	N/A	US	13.1
N/A	US	13.3	32	NC	13.1	33	LA	12.6	33	MS	12.9
29	AL	13.2	N/A	US	13.1	36	TN	12.2	34	NC	12.4
33	MD	13.0	33	LA	12.9	36	MD	12.2	35	LA	12.3
39	MS	12.6	35	MD	12.3	44	GA	10.9	36	TN	12.2
40	AR	12.5	39	GA	11.5	48	ΤX	9.5	39	MD	12.1
42	OH	12.4	40	AL	11.4	49	AL	0.9	44	AL	11.1
44	ΤX	11.9	42	TN	11.3	50	OK	0.0	47	GA	10.6
46	GA	11.6	48	ΤХ	10.1	 50	MS	0.0	50	ΤХ	9.2

Table 3.2Students With Individualized Education Programs, 2002, 2008, 2009, and 2010

Note: Data were not available for NH, NJ, and NY in 2008.

Source: US. Dept. of Ed. Inst. Natl. Common.

A 2008 OEA study pointed out Kentucky's relatively high disability identification rate and recommended measures for ensuring accurate identification of students and appropriate provision of services (Commonwealth. Legislative. Office. *Review*). OEA's follow-up study in 2011 recommended continued audits and reviews of the identification process (Commonwealth. Legislative. Office. *Appropriate*).

### **Title I School Enrollment**

Federal funds to support programs for disadvantaged students are provided by Title I of the Elementary and Secondary Education Act, which was reauthorized as the No Child Left Behind Act of 2001. Funds can be used for targeted assistance to specific students or for comprehensive schoolwide programs if at least 40 percent of students are below the poverty level.

The economic downturn of the past few years is reflected in higher percentages of students enrolled in Title I schools. As Table 3.3 shows, the percentage of Kentucky students in Title I schools in 2010 was just under 84 percent, up from about 74 percent in 2002. The US rate was 65 percent in 2010, up from 37 percent in 2002. Despite changes over time in the state and national rates, Kentucky's ranking has varied little in recent years, ranging between sixth in 2009 and third in 2010.

	2002			2008			2009			2010	
Rank	State	%	Rank	State	%	Rank	State	%	Rank	State	%
4	KY	73.6	4	KY	81.7	<u>4</u>	LA	82.0	3	KY	83.5
5	MS	70.5	7	IN	78.5	6	KY	80.9	7	SC	81.4
8	AR	66.1	8	LA	78.1	10	ΤХ	75.2	8	DE	81.1
12	OH	60.6	11	SC	75.2	12	SC	74.7	10	LA	80.2
14	OK	58.6	12	TN	72.8	13	TN	73.1	13	TN	77.4
15	ΤX	57.7	15	MS	68.7	14	IL	71.5	15	TX	76.4
17	IL	56.0	16	AR	66.8	16	MS	69.8	16	IL	74.8
19	AL	55.1	17	OH	65.5	17	OH	68.6	20	OH	72.3
21	LA	50.7	17	IL	65.5	19	FL	67.5	21	FL	71.2
24	MO	47.4	21	TX	64.2	20	IN	66.5	22	NC	70.6
25	DE	46.6	23	FL	61.4	21	AR	66.1	24	MS	69.6
27	IN	46.2	N/A	US	60.0	N/A	US	63.2	25	IN	69.4
29	GA	43.8	26	OK	59.5	25	OK	59.4	26	AR	67.6
30	WV	43.5	29	AL	53.9	30	AL	53.4	N/A	US	64.8
36	SC	38.8	35	GA	49.4	35	GA	49.6	30	OK	62.8
N/A	US	36.6	39	MO	40.3	36	DE	47.7	32	AL	60.7
41	NC	35.7	44	WV	36.1	41	MO	40.6	35	GA	59.8
45	FL	32.5	46	NC	34.6	45	WV	36.1	45	MO	40.2
46	VA	30.6	48	VA	26.1	46	NC	35.4	47	WV	37.8
47	MD	26.6	51	MD	18.7	48	VA	25.6	49	VA	26.5
	TN			DE		50	MD	18.2	51	MD	21.0

Table 3.3Percentage of Students Enrolled in Title I Schools, 2002, 2008, 2009, and 2010

Notes: Data are not available for TN in 2002, DE in 2008, and ME in 2009. Source: US. Dept. of Ed. Inst. Natl. *Numbers*.

### **National School Lunch Program Participation**

Children from families with incomes at or below 130 percent of the poverty level are eligible for free lunches through the National School Lunch Program. Those with incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price lunches.

As Table 3.4 shows, more than half of Kentucky students are eligible for lunch subsidies. Between 2009 and 2010, the eligibility rate increased about 3 percentage points in Kentucky and 2 percentage points in the nation. Kentucky's eligibility rate for free or reduced-price lunch continues to be above the national rate.

	2002			2008			2009				2010	
Rank	State	%	Rank	State	%	Rank	State	%	R	ank	State	%
1	MS	65.3	1	MS	66.9	1	MS	68.3		1	MS	70.7
2	LA	59.1	2	LA	63.2	3	LA	64.9		3	LA	65.8
5	WV	50.4	4	AR	56.2	5	AR	57.1		5	AR	59.6
6	KY	49.1	5	OK	55.2	6	OK	56.1		6	OK	58.7
7	AL	48.7	6	SC	51.5	7	GA	53.0		7	GA	56.1
7	OK	48.7	7	KY	51.1	8	SC	52.5		9	AL	54.9
7	SC	48.7	9	GA	51.0	9	AL	52.4		10	KY	54.7
11	AR	47.2	10	AL	50.7	11	KY	51.6		11	SC	54.5
12	TX	45.4	11	TN	49.3	12	WV	50.0		12	FL	53.5
13	FL	44.6	12	WV	49.2	13	TN	50.0		13	TN	53.1
14	GA	44.2	14	ΤХ	47.7	14	FL	49.6		14	WV	52.0
N/A	US	38.6	15	FL	45.6	15	ΤХ	48.8		15	ΤX	50.5
17	NC	38.4	N/A	US	42.3	N/A	US	43.8		17	NC	48.8
20	IL	35.2	19	MO	39.5	21	IN	41.8		18	DE	46.8
21	MO	35.1	21	IN	39.2	25	DE	39.5	Ν	N/A	US	45.6
22	DE	34.6	22	IL	38.4	26	IL	39.3		22	IN	45.3
29	IN	31.1	31	DE	36.0	28	MO	38.7		23	MO	43.8
31	MD	29.7	37	MD	33.4	33	OH	36.4		26	IL	43.0
34	VA	29.3	40	VA	31.4	36	MD	34.7	_	33	OH	40.3
40	OH	27.4	42	NC	31.3	39	NC	33.9		36	MD	38.3
	TN			OH		42	VA	33.1		42	VA	35.7

Table 3.4
Percentage of Students Eligible for Free or Reduced-price Lunch in the
National School Lunch Program, 2002, 2008, 2009, and 2010

Notes: Data are not available for AZ, CT, TN, and WY in 2002 and for OH in 2008. Source: US. Dept. of Ed. Inst. Natl. *Common*.

### Chapter 4

### **Fiscal Matters**

The US Department of Education, in collaboration with the Census Bureau, collects financial data on education revenues and spending from state education agencies. Despite federal and state improvement efforts, the coding of some data is inconsistent between states, and sometimes even within states. Kentucky does not follow federal guidelines stipulating the inclusion of school activity funds in revenues and expenditures reported to federal government. Consequently, Kentucky's revenues and expenditures are understated to some extent (Commonwealth. Legislative. Office. *Fees*).

Because costs vary from state to state, a dollar spent in one state does not buy the same amount as a dollar spent in another state. States with high costs of living usually offer the highest salaries, but without adjusting, there is no way to know whether the higher salaries are sufficient to offset the higher costs. To improve comparability, staff adjusted fiscal measures using the Comparable Wage Index produced by the National Center for Education Statistics. However, while this index is widely held to be the most appropriate method for adjusting education finance data, no method can achieve perfect comparability.

At the time this issue of the compendium was produced, 2008 was the most recent year for which revenue and expenditure data were available. It should also be noted that NCES has not updated the Comparable Wage Index beyond 2005; in keeping with common research practices, this compendium uses the 2005 CWI index values to adjust data for 2005 and all subsequent years.

### Revenues

Education revenues are funds received by a state's school system from external sources other than from issuance of debt, from liquidation of investments, or as agency and private trust transactions. Revenues exclude noncash transactions.

As Table 4.1 shows, Kentucky's revenues per pupil continued to be below the national average, even after adjusting for geographic cost differences. However, as will be discussed in the next section, Kentucky's revenues and expenditures are understated because several types of funds are omitted in reports to the US Department of Education.

Kentucky's rank rose from 40<sup>th</sup> in 2007 to 37<sup>th</sup> in 2008, the most recent year for which fiscal data are available.

			1	Unadjusted	l			
	2002			2007			2008	
Rank	State	\$	Rank	State	\$	Rank	State	\$
13	DE	9,841	11	MD	13,635	7	MD	15,443
15	MD	9,768	12	DE	13,345	12	DE	13,792
17	OH	9,636	16	OH	12,114	15	OH	12,476
19	IL	9,008	19	VA	11,440	18	IL	12,035
20	IN	8,972	21	IL	11,342	N/A	US	12,013
21	GA	8,820	N/A	US	11,261	20	VA	11,803
N/A	US	8,801	24	GA	10,874	21	IN	11,747
23	WV	8,736	26	WV	10,780	24	LA	11,543
28	VA	8,356	27	LA	10,568	25	GA	11,319
29	SC	8,315	29	MO	10,391	28	WV	11,207
31	MO	8,263	32	FL	10,246	31	MO	11,042
35	TX	7,754	35	SC	10,141	32	FL	10,995
39	LA	7,254	38	IN	9,621	34	SC	10,913
42	FL	7,178	39	AL	9,548	37	AL	10,356
43	AR	7,112	41	TX	9,410	41	KY	9,848
44	KY	7,106	43	AR	9,362	42	AR	9,758
45	NC	7,081	45	KY	8,989	43	TX	9,749
46	AL	6,956	46	MS	8,399	45	MS	8,880
48	OK	6,643	47	NC	8,398	46	OK	8,539
49	TN	6,394	48	OK	8,184	47	TN	8,535
50	MS	6,142	49	TN	7,897	48	NC	8,439

Table 4.1Revenues per Pupil in Nominal Dollars, 2002, 2007, and 2008

#### **Adjusted for Geographic Cost Differences**

	2002			2007			2008	
Rank	State	\$	Rank	State	\$	Rank	State	\$
16	IN	10,049	16	DE	12,986	12	MD	14,281
18	OH	9,992	18	OH	12,669	18	DE	13,560
19	DE	9,888	20	MD	12,524	20	LA	13,312
29	MD	9,229	21	VA	12,492	21	WV	13,236
30	MO	9,188	24	LA	12,188	22	IN	13,226
31	WV	9,185	29	MO	11,393	24	OH	13,026
32	SC	9,157	30	WV	11,344	28	MO	12,207
33	VA	9,045	31	AR	11,323	29	SC	12,107
34	GA	8,866	N/A	US	11,261	N/A	US	12,013
35	IL	8,819	32	SC	11,240	30	FL	11,875
N/A	US	8,801	33	GA	11,141	32	AR	11,855
36	AR	8,564	36	IL	10,946	34	AL	11,819
37	LA	8,266	37	FL	10,927	35	IL	11,659
41	KY	7,922	38	AL	10,888	36	GA	11,528
42	FL	7,877	39	IN	10,801	37	KY	11,148
43	AL	7,862	40	KY	10,204	38	VA	10,903
44	OK	7,811	42	MS	10,089	39	MS	10,690
45	TX	7,717	45	OK	9,715	45	OK	10,155
47	NC	7,389	46	TX	9,583	47	ΤX	9,853
49	MS	7,308	49	NC	8,946	48	TN	9,285
50	TN	6,881	50	TN	8,609	49	NC	8,940

Note: Staff adjusted revenues using the National Center for Education Statistics Comparable Wage Index. Sources: US. Dept. of Ed. Inst. Natl. *Common* and "NCES."

Table 4.2 ranks states by the percentages of revenues from local, state, and federal sources. When reporting revenues, states are instructed to include tax revenues, investment earnings, and student fees for textbooks, transportation, and tuition. However, Kentucky's exclusion of school activity funds causes local revenues to be understated.

State revenues reported by states should include funds for school construction, equalization, state payments made on behalf of districts, debt service, and transportation. However, Kentucky does not include School Facilities Construction Commission payments, causing state revenues to be understated by more than \$100 million. Most Kentucky revenues are distributed through SEEK.

Federal revenue sources include grants and other aid distributed directly by the federal government or indirectly by state governments. Examples include Head Start, the National School Lunch Program, and Title I funds.

In 2008, about one-third of funds came from local sources in Kentucky, compared to the national percentage of 40 percent; Kentucky ranked 37<sup>th</sup>. As Kentucky's share of revenues from local sources has gradually increased, the share from state sources continued its gradual decline, from 60 percent in 2002 to 57 percent in 2008, when Kentucky ranked 15<sup>th</sup>. Much federal funding is tied to poverty indicators, which are high for Kentucky; 11 percent of revenues in Kentucky came from federal sources, giving Kentucky a rank of 11<sup>th</sup>.

			I	ocal Source	es			
	2002			2007			2008	
Rank	State	%	Rank	State	%	Rank	State	%
3	IL	58.4	3	IL	61.8	2	IL	60.9
5	MD	56.4	5	MO	58.3	3	MO	58.6
6	MO	56.2	9	MD	53.8	10	VA	52.9
9	VA	52.8	11	VA	52.0	11	FL	52.5
14	TX	49.8	12	TX	51.9	12	MD	52.4
16	OH	48.5	15	FL	50.1	18	OH	47.1
19	TN	46.9	19	OH	48.4	19	GA	46.6
22	FL	44.6	21	GA	46.7	22	ΤX	45.2
23	GA	43.7	23	SC	46.0	23	TN	43.9
25	IN	43.1	24	TN	45.9	N/A	US	40.4
N/A	US	42.9	N/A	US	43.9	26	SC	40.0
29	SC	39.9	28	LA	40.1	27	IN	39.4
31	LA	38.3	30	IN	38.8	29	LA	38.4
33	AR	33.7	35	OK	33.7	35	OK	34.0
37	OK	31.5	37	AL	32.5	36	AR	32.5
39	AL	30.9	38	KY	32.1	37	KY	31.9
39	MS	30.9	39	AR	31.5	38	DE	30.1
42	KY	29.8	41	MS	29.6	39	WV	29.9
44	WV	28.5	42	DE	29.4	40	AL	29.8
46	DE	27.1	44	WV	28.8	42	MS	29.4
46	NC	27.1	46	NC	26.5	45	NC	24.3

## Table 4.2Percentages of Revenues by Source, 2002, 2007, and 2008

Continues on next page.

			S	tate Sources	5			
	2002			2007			2008	
Rank	State	%	Rank	State	%	Rank	State	%
5	NC	64.5	6	NC	63.5	7	NC	65.6
6	DE	64.3	7	DE	63.1	9	DE	62.0
10	WV	60.9	11	WV	59.5	11	AL	60.6
11	KY	59.6	13	AL	57.3	12	WV	59.2
14	AL	58.7	13	AR	57.3	15	KY	57.3
16	OK	56.7	15	KY	56.7	16	AR	56.7
19	AR	55.5	18	OK	53.9	18	MS	54.5
20	MS	54.1	19	MS	53.3	19	OK	54.2
23	SC	51.0	20	IN	53.2	20	IN	53.5
24	IN	50.8	N/A	US	47.6	24	SC	50.8
N/A	US	49.2	29	GA	44.8	N/A	US	50.6
25	GA	49.2	30	OH	44.5	28	OH	45.6
25	LA	49.2	31	SC	44.1	28	TN	45.6
32	OH	45.6	33	TN	43.4	30	GA	45.4
33	FL	45.3	35	LA	42.6	32	LA	44.8
35	TN	43.7	37	VA	41.6	32	TX	44.8
41	VA	40.9	38	FL	40.7	36	MD	42.1
42	TX	40.8	39	MD	40.3	39	VA	41.0
45	MD	37.2	42	TX	37.8	42	FL	38.8
47	MO	36.3	46	MO	33.3	47	MO	33.3
49	IL	33.9	49	IL	30.5	49	IL	31.2

### Table 4.2 (cont.)

#### **Federal Sources**

	2002			2007			2008	
Rank	State	%	Rank	State	%	Rank	State	%
2	MS	15.0	1	LA	17.3	1	LA	16.8
8	LA	12.5	2	MS	17.1	2	MS	16.1
9	OK	11.9	8	OK	12.4	9	OK	11.8
10	AR	10.7	10	WV	11.7	10	WV	10.9
11	KY	10.5	11	AR	11.2	11	AR	10.8
11	WV	10.5	11	KY	11.2	11	KY	10.8
13	AL	10.4	14	TN	10.7	14	TN	10.5
14	FL	10.0	15	TX	10.3	15	NC	10.0
16	TN	9.5	17	AL	10.1	15	TX	10.0
17	TX	9.3	18	NC	10.0	18	AL	9.7
19	SC	9.1	19	SC	9.8	20	SC	9.2
22	DE	8.6	23	FL	9.3	N/A	US	9.0
24	NC	8.5	27	GA	8.5	24	FL	8.6
N/A	US	7.9	N/A	US	8.5	25	MO	8.1
31	IL	7.7	29	MO	8.4	27	GA	8.0
32	MO	7.6	34	IN	8.0	29	DE	7.9
34	GA	7.2	35	IL	7.8	29	IL	7.9
37	MD	6.4	37	DE	7.5	35	OH	7.3
39	VA	6.3	39	OH	7.1	37	IN	7.1
42	IN	6.1	44	VA	6.4	43	VA	6.2
45	OH	5.9	46	MD	5.8	46	MD	5.5

Source: US. Dept. of Ed. Inst. Natl. Common.

### **Current Spending**

Current spending refers to expenditures for day-to-day operation of public schools. It includes direct expenditures for salaries, employee benefits, purchased professional and technical services, purchased property and other services, and supplies; it also includes payments made by the state government on behalf of school systems. It excludes interest on debt, capital outlays, and programs outside the scope of preschool to grade 12, such as adult education, community colleges, private school programs, and community services. Expenditures for items lasting more than 1 year, such as school buses and computers, are also excluded from current expenditures (US. Dept. of Ed. Inst. Natl. *Common*).

Table 4.3 ranks states by per-pupil current expenditures. Kentucky was ranked 40<sup>th</sup> in 2008, with per-pupil spending at \$8,740, compared to a national average of \$10,530. Adjusting for geographic cost differences improved Kentucky's rank slightly, to 37<sup>th</sup>.

Table 4.4 ranks states by spending on instruction, as a percentage of all spending. Instruction expenditures include salaries, benefits, supplies, materials, and contractual services. They exclude capital outlay, debt service, and interfund transfers. Instruction covers regular, special, and vocational programs offered in both the regular school year and summer school. Kentucky was similar to most other states in terms of spending on instruction. Kentucky ranked 31<sup>st</sup> in 2008 but was less than 1 percentage point below the US percentage.

Not Adjusted for Geographic Cost Differences												
	2002			2007		2008						
Rank	State	\$	Rank	State	\$	Rank	State	\$				
9	DE	9,284	10	MD	11,975	10	MD	13,235				
11	MD	8,692	11	DE	11,760	11	DE	12,153				
16	OH	8,069	17	VA	10,214	17	VA	10,664				
17	IL	7,956	19	OH	9,940	N/A	US	10,530				
19	WV	7,844	21	WV	9,727	19	IL	10,353				
22	IN	7,734	N/A	US	9,669	20	OH	10,340				
N/A	US	7,728	22	IL	9,596	22	WV	10,059				
24	VA	7,496	26	GA	9,102	24	LA	10,006				
26	GA	7,380	27	IN	9,080	27	GA	9,718				
30	MO	7,136	30	LA	8,937	30	MO	9,532				
33	SC	7,017	32	MO	8,848	34	AL	9,197				
36	TX	6,771	35	FL	8,567	36	FL	9,084				
38	LA	6,567	36	SC	8,566	37	SC	9,060				
39	KY	6,523	38	AL	8,398	39	IN	8,867				
40	NC	6,495	39	AR	8,391	40	KY	8,740				
42	AR	6,276	42	KY	7,940	41	AR	8,677				
43	OK	6,229	43	NC	7,878	43	ΤX	8,350				
44	FL	6,213	44	TX	7,850	45	MS	7,890				
46	AL	6,029	46	MS	7,459	46	TN	7,820				
48	TN	5,948	47	OK	7,430	47	NC	7,798				
50	MS	5,354	49	TN	7,129	49	OK	7,683				

Table 4.3Current Expenditures per Pupil, Nominal Dollars, 2002, 2007, and 2008

#### **Adjusted for Geographic Cost Differences**

	2002			2007			2008	
Rank	State	\$	Rank	State	\$	Rank	State	\$
12	DE	9,328	15	DE	11,444	16	MD	12,239
17	IN	8,663	17	VA	11,153	17	DE	11,949
22	OH	8,367	18	MD	10,999	18	WV	11,880
26	WV	8,247	22	OH	10,396	21	LA	11,540
27	MD	8,212	24	LA	10,307	25	OH	10,796
28	VA	8,114	25	WV	10,236	27	AR	10,541
30	MO	7,935	26	IN	10,194	28	MO	10,538
32	IL	7,789	28	AR	10,149	N/A	US	10,530
N/A	US	7,728	34	MO	9,701	29	AL	10,497
33	SC	7,728	N/A	US	9,669	33	SC	10,051
35	AR	7,558	35	AL	9,577	34	IL	10,029
36	LA	7,483	36	SC	9,494	35	IN	9,983
37	GA	7,419	37	GA	9,326	36	GA	9,897
38	OK	7,324	38	IL	9,261	37	KY	9,894
40	KY	7,272	39	FL	9,136	38	VA	9,851
42	FL	6,818	40	KY	9,013	39	FL	9,811
43	AL	6,814	41	MS	8,960	41	MS	9,499
44	NC	6,778	42	OK	8,820	42	OK	9,137
45	TX	6,739	44	NC	8,392	46	TN	8,507
48	TN	6,401	47	TX	7,994	47	TX	8,439
49	MS	6,371	50	TN	7,771	49	NC	8,261

Note: Staff adjusted revenues using the National Center for Education Statistics Comparable Wage Index. Sources: US. Dept. of Ed. Inst. Natl. *Common* and "NCES."

	2002			2007			2008	
Rank	State	%	Rank	State	%	Rank	State	%
4	TN	65.2	6	TN	63.8	8	NC	63.6
9	GA	63.9	10	GA	63.1	9	GA	63.2
12	NC	63.4	12	NC	62.0	10	TN	63.1
16	MD	62.2	14	MD	61.4	13	MD	61.2
20	WV	61.7	15	VA	61.2	14	VA	61.0
21	AR	61.6	N/A	US	61.0	22	DE	60.2
21	DE	61.6	22	MO	60.5	22	FL	60.2
21	VA	61.6	26	IN	60.0	N/A	US	60.2
N/A	US	61.5	27	DE	59.9	26	MO	60.0
24	KY	61.4	28	FL	59.6	27	TX	59.8
26	AL	61.2	29	TX	59.5	31	KY	59.3
27	LA	61.1	31	KY	59.4	32	WV	59.2
29	IN	60.9	31	WV	59.4	34	LA	58.9
29	MO	60.9	34	AR	59.2	34	MS	58.9
33	TX	60.4	37	IL	58.9	36	IL	58.8
34	MS	60.2	38	MS	58.8	37	AL	58.7
34	SC	60.2	40	AL	58.5	39	AR	58.4
39	IL	59.5	42	LA	58.1	44	OK	57.7
42	FL	59.0	43	OK	58.0	46	OH	57.2
46	OH	58.0	46	SC	57.7	47	SC	57.1
47	OK	57.8	47	OH	57.4	50	IN	54.3

Table 4.4Instruction Spending as a Percentage of Current Spending, 2002, 2007, and 2008

Source: US. Dept. of Ed. Inst. Natl. Common.

#### **Classroom Teacher Salaries**

Table 4.5 ranks states by average annual classroom teacher salary. A salary is the total amount regularly paid before deductions; it excludes extra-duty pay. Teacher salary information is not collected by the federal government, but it is collected by the National Education Association.

Historically, Kentucky's average classroom teacher salary was well below the national average until 2008, when a legislative mandate to increase teacher salaries by \$3,000 caused Kentucky's rank to jump to 27<sup>th</sup>, up from 35<sup>th</sup> the previous year. In 2010, Kentucky was again ranked 27<sup>th</sup>. However, after adjusting for geographic cost differences, Kentucky's 2010 average teacher salary was slightly above the national average, and Kentucky ranked 25<sup>th</sup>.

		Unadjusted										
	2002			2008		-		2009			2010	
Rank	State	\$	Rank	State	\$	-	Rank	State	\$	Ranl	x State	\$
9	IL	49,435	6	IL	60,474	_	6	MD	62,849	7	MD	63,971
11	DE	48,363	8	MD	60,069		8	IL	61,344	8	IL	62,077
12	MD	48,251	12	DE	55,994		13	DE	56,667	13	DE	57,080
N/A	US	44,683	14	OH	53,410		15	OH	54,656	14	OH	55,958
15	IN	44,195	N/A	US	52,308		N/A	US	54,319	N/A	US	55,202
16	GA	44,073	18	GA	51,560		18	GA	52,879	18	GA	53,112
17	OH	44,029	22	IN	48,508		24	IN	49,569	24	VA	50,015
19	NC	42,680	25	NC	47,354		25	NC	48,648	25	IN	49,986
23	VA	41,731	27	KY	47,207		27	LA	48,627	27	KY	49,543
27	SC	39,923	28	LA	46,964		29	VA	48,365	30	LA	48,903
30	FL	39,275	29	FL	46,930		31	KY	47,875	31	TX	48,261
32	ΤX	39,232	30	VA	46,796		32	AR	47,472	32	OK	47,691
33	TN	38,515	32	AL	46,604		33	SC	47,421	33	AL	47,571
35	MO	37,996	34	ΤX	46,179		34	ΤX	47,157	34	SC	47,508
36	KY	37,951	35	AR	45,773		35	FL	46,921	36	NC	46,850
40	AL	37,194	37	SC	45,758		36	AL	46,879	37	FL	46,708
42	AR	36,962	40	TN	45,030		40	TN	45,549	38	AR	46,700
43	WV	36,751	42	OK	43,551		44	WV	44,701	40	TN	46,290
45	LA	36,328	44	MO	43,206	-	45	MS	44,498	45	WV	45,959
47	OK	34,744	47	WV	42,529		47	MO	44,249	48	MS	45,644
49	MS	33,295	48	MS	42,403		48	OK	43,846	49	MO	45,317

Table 4.5Average Classroom Teacher Salary, 2002, 2008, 2009, and 2010

Adjusted for Geographic Cost Differences

					U								
	2002			2008				2009		_		2010	
Rank	State	\$	Rank	State	\$	Ra	nk	State	\$	_	Rank	State	\$
6	IN	49,502	5	IL	58,584	8		IL	59,427		9	IL	60,137
9	DE	48,594	12	OH	55,764	12	2	MD	58,121		12	MD	59,158
10	IL	48,396	15	AR	55,608	1:	5	AR	57,672		15	OH	58,425
19	OH	45,654	17	MD	55,550	1'	7	OH	57,065		20	AR	56,734
20	MD	45,586	19	DE	55,054	20	0	LA	56,080		21	OK	56,718
N/A	US	44,683	21	IN	54,614	22	2	IN	55,808		22	LA	56,399
22	NC	44,539	23	LA	54,163	23	3	DE	55,716		23	IN	56,278
24	AR	44,509	24	KY	53,439	N/	Α	US	54,319		24	DE	56,122
26	GA	44,303	26	AL	53,190	2	5	KY	54,195		25	KY	56,083
28	SC	43,967	27	GA	52,511	2	7	GA	53,854		N/A	US	55,202
32	WV	43,241	N/A	US	52,308	3	1	MS	53,570		29	MS	54,950
34	FL	43,101	30	OK	51,794	32	2	AL	53,503		31	AL	54,293
36	KY	42,311	34	MS	51,048	34	4	WV	52,795		32	WV	54,280
37	MO	42,252	35	SC	50,763	3:	5	SC	52,608		34	GA	54,091
39	AL	42,040	37	FL	50,685	3'	7	OK	52,145		38	SC	52,704
41	TN	41,448	39	WV	50,229	39	9	NC	51,537		45	FL	50,445
42	LA	41,397	40	NC	50,166	4	1	FL	50,675		46	TN	50,359
43	OK	40,854	44	TN	48,988	40	6	TN	49,553		47	MO	50,098
49	VA	40,112	48	MO	47,764	4′	7	MO	48,917		49	NC	49,632
50	MS	39,618	49	ΤX	46,673	43	8	ΤX	47,662		50	ΤX	48,778
51	ΤХ	39,046	51	VA	43,228	5	1	VA	44,677		51	VA	46,201
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Note: Staff adjusted salaries using the National Center for Education Statistics Comparable Wage Index. Sources: US. Dept. of Ed. Inst. Natl. "NCES" and National Education Association data used with permission of the National Education Association © 2010. All rights reserved.

### **Student/Teacher Ratio**

Student/teacher ratios in Table 4.6 were derived by dividing student membership by the number of full-time equivalent teachers. Student membership is the annual count of students enrolled in school on October 1 or the school day closest to that date. Full-time equivalent is the amount of time required to perform an assignment stated as a proportion of a full-time position; it is computed by dividing the amount of time employed by the time normally required for a full-time position.

States with smaller student/teacher ratios—fewer students per teacher—may offer students more opportunities to receive personal attention. Kentucky's student/teacher ratio has been shrinking for years, mirroring the national trend. As Table 4.6 shows, Kentucky's ranking has ranged between 14 and 18 since 2002. In 2010, Kentucky was ranked 18<sup>th</sup>, with 15.3 students per teacher, compared to the US ratio of 15.8.

	2002		-		2008				2009			2010	
Rank	State	Ratio	_	Rank	State	Ratio		Rank	State	Ratio	Rank	State	Ratio
6	FL	18.6	_	10	VA	17.1		9	VA	17.3	9	VA	17.6
12	IN	16.7		12	IN	16.8		11	IN	16.7	11	IN	16.8
N/A	US	16.2		13	OH	16.6		13	OH	16.1	14	AL	15.8
14	KY	16.2		N/A	US	15.9		N/A	US	15.7	14	OH	15.8
15	IL	16.0		14	FL	15.8		16	AL	15.6	N/A	US	15.8
15	MD	16.0		17	IL	15.5		16	IL	15.6	17	SC	15.4
18	GA	15.9		18	KY	15.3		18	KY	15.4	18	KY	15.3
19	AL	15.8		19	DE	15.0		19	DE	15.1	18	OK	15.3
19	MS	15.8		19	SC	15.0		20	TN	15.0	20	IL	15.2
19	TN	15.8		21	TN	14.9		21	MS	14.7	22	MS	14.9
22	NC	15.4		22	AL	14.8		24	ΤX	14.5	22	TN	14.9
24	DE	15.3		25	MS	14.7		25	SC	14.4	25	DE	14.7
25	OH	15.0		27	ΤX	14.5		26	MD	14.3	26	MD	14.6
26	OK	14.9		28	MD	14.3		27	FL	14.1	26	ΤX	14.6
27	ΤX	14.7		29	AR	14.1		28	WV	14.0	28	GA	14.4
29	LA	14.6		29	GA	14.1		29	GA	13.9	29	FL	14.3
31	SC	14.5		31	LA	14.0		29	LA	13.9	30	NC	14.1
36	WV	14.0		31	NC	14.0		29	OK	13.9	31	LA	13.9
37	MO	13.9		33	WV	13.9		36	MO	13.6	31	WV	13.9
43	AR	13.6		34	OK	13.7		36	NC	13.6	37	MO	13.5
48	VA	13.0	_	38	MO	13.4	-	41	AR	12.9	42	AR	12.9

Table 4.6
Student/Teacher Ratio, 2002, 2008, 2009, and 2010

Source: US. Dept. of Ed. Inst. Natl. Common.

### **Staffing Rates**

Table 4.7 presents information about other school and district staff. The number of staff is divided by student membership and then multiplied by 1,000, to allow comparisons across states. Unlike the student/teacher ratios, high values of these staffing rates indicate relatively high numbers of staff relative to students.

School administrators direct and manage the operation of a particular school. These include principals, assistant principals, department chairpersons, and others who supervise school operations, assign duties to staff, maintain school records, and coordinate school instructional activities.

District administrators include superintendents, deputy and assistant superintendents, and other persons with districtwide responsibilities, such as business managers and administrative assistants.

Instructional aides are paid to assist teachers with routine activities such as monitoring, conducting rote exercises, operating equipment, and clerking.

The All Staff column includes staff in the above categories and other staff not listed above, including teachers, librarians, guidance counselors, and support staff.

As Table 4.7 shows, Kentucky continued to have more staff than the national average, and staffing has increased in Kentucky more than in the nation. In 2010, the total number of staff members per 1,000 students was about 174 compared to a national rate of about 129.

A break-out by staff type showed that Kentucky continues to rank among the top 10 with respect to the number of instructional aides; this reflects, in part, Kentucky's higher disability rates and preschool enrollment rates, as well as instructional aide requirements for kindergarten.

Kentucky also continues to rank among the top 10 for the number of school administrators; this likely reflects the state's many small rural schools, as well as the inclusion of coordinators of Family Resource and Youth Services Centers, which do not exist in other states.

The number of district administrators rose between 2009 and 2010, causing Kentucky's rank to rise from 25<sup>th</sup> to 19<sup>th</sup>.

Table 4.7
Full-time Equivalent Staff Members per 1,000 Students, 2002, 2008, 2009, and 2010

					All	St	aff					
	2002			2008				2009			2010	
Rank	State	Ratio	Rank	State	Ratio		Rank	State	Ratio	Rank	State	Ratio
6	AR	148.0	4	VA	166.1		7	VA	164.7	5	KY	174.1
9	KY	145.0	9	KY	150.6		11	KY	149.6	9	VA	162.9
13	VA	142.0	11	AL	149.9		13	AR	148.8	11	AR	154.6
17	ΤX	139.9	13	AR	146.8		15	LA	147.3	15	LA	148.9
18	LA	138.8	14	LA	146.3		16	MS	146.5	17	MO	143.8
20	MO	137.1	16	MO	145.7		19	GA	144.4	18	MS	143.7
21	WV	133.1	17	MS	144.0		20	MO	144.2	22	GA	140.7
22	MS	132.0	18	GA	142.5		22	NC	139.6	23	WV	138.7
23	IN	129.4	22	MD	138.2		23	MD	138.5	24	OH	138.4
24	GA	129.2	23	NC	136.5		24	ΤX	136.6	26	ΤX	136.6
28	NC	126.3	24	ΤX	136.0		25	WV	136.5	27	IN	136.4
30	OH	125.6	25	WV	135.6		26	IN	135.7	28	MD	135.9
N/A	US	124.0	27	OK	135.1		27	OK	135.6	29	NC	135.1
33	IL	123.4	29	OH	133.3		29	OH	134.7	31	DE	133.9
35	OK	122.8	30	IN	133.2		31	AL	130.9	32	ΤN	131.3
36	DE	122.6	31	TN	131.3		33	TN	130.5	34	OK	129.9
37	TN	120.9	N/A	US	126.1		34	FL	129.5	N/A	US	128.7
38	AL	119.5	34	DE	126.7		N/A	US	128.5	37	FL	127.3
41	MD	115.3	37	FL	123.6		41	DE	118.2	38	AL	125.6
42	FL	113.0	44	IL	101.5		44	IL	104.3	44	IL	105.4
46	SC	103.7	48	SC	92.8		47	SC	97.2	48	SC	93.1

**Instructional Aides** 

	2002			2008			2009		-		2010	
Rank	State	Ratio	Rank	State	Ratio	Rank	State	Ratio		Rank	State	Ratio
4	KY	21.8	8	KY	21.4	8	IN	22.1		6	KY	24.6
5	NC	21.0	10	IN	20.2	10	KY	21.0		8	IN	23.0
9	IN	18.4	11	NC	19.3	14	NC	19.5		20	MS	18.1
13	MS	17.3	15	MS	18.4	19	MS	18.2		21	NC	18.0
19	SC	15.9	22	GA	17.0	22	GA	16.9		23	LA	17.1
19	IL	15.9	23	AR	16.7	24	LA	16.6		25	AR	16.6
23	GA	15.3	24	VA	16.5	25	AR	16.3		25	TN	16.6
26	LA	15.1	25	LA	16.4	25	VA	16.3		28	GA	16.2
N/A	US	14.1	26	TN	15.8	28	TN	16.2		29	DE	15.9
24	ΤX	13.9	N/A	US	14.6	N/A	US	14.8		29	VA	15.9
27	AR	13.7	31	IL	14.0	32	IL	14.2		N/A	US	14.9
29	TN	13.6	32	MO	13.8	32	MO	14.2		32	IL	14.6
29	VA	13.5	34	ΤX	13.5	37	MD	13.3		33	MO	14.3
30	FL	12.4	36	MD	13.0	38	ΤX	13.2		39	MD	13.4
31	MO	12.2	37	DE	12.6	40	OK	12.5		39	ΤX	13.4
32	DE	11.5	39	WV	12.4	42	DE	12.4		41	OK	13.3
35	WV	10.9	41	OK	12.0	42	WV	12.4		42	WV	12.8
36	MD	10.8	42	SC	11.6	44	SC	11.9		43	SC	12.0
39	OK	10.5	44	FL	11.2	45	FL	10.9		45	OH	11.1
41	AL	8.3	47	OH	10.2	48	OH	10.5		47	FL	10.8
42	OH	8.1	51	AL	8.7	51	AL	0.9	_	51	AL	8.9

Continues on next page.

				Sc	chool Ad	lmi	inistrato	rs				
	2002			2008		-		2009			2010	
Rank	State	Ratio	Rank	State	Ratio	-	Rank	State	Ratio	Rank	State	Ratio
1	ΤX	6.9	8	KY	4.5	-	6	KY	4.5	5	KY	5.3
3	TN	5.2	9	MD	4.3		7	ΤX	4.4	6	MD	4.5
5	AL	4.4	9	ΤX	4.3		8	MD	4.3	6	ΤX	4.5
5	SC	4.4	12	AL	4.1		10	LA	4.2	10	LA	4.2
9	AR	3.8	13	LA	4.0		12	GA	4.0	13	MS	4.0
11	KY	3.7	16	GA	3.9		12	MS	4.0	13	WV	4.0
11	WV	3.7	16	MS	3.9		16	WV	3.9	15	GA	3.9
17	LA	3.5	16	WV	3.9		18	VA	3.8	19	AR	3.7
17	MD	3.5	20	VA	3.8		19	AL	3.6	19	VA	3.7
17	NC	3.5	21	AR	3.6		19	AR	3.6	21	AL	3.6
21	MS	3.4	23	MO	3.5		22	IL	3.5	24	IL	3.5
21	VA	3.4	26	DE	3.4		22	SC	3.5	24	NC	3.5
N/A	US	3.3	26	OK	3.4		26	NC	3.4	24	SC	3.5
26	GA	3.2	26	SC	3.4		26	OK	3.4	28	MO	3.4
26	MO	3.2	26	TN	3.4		26	TN	3.4	28	OK	3.4
26	OK	3.2	32	NC	3.3		32	DE	3.2	28	TN	3.4
30	DE	3.1	N/A	US	3.2		32	MO	3.2	N/A	US	3.4
32	IL	3.0	35	FL	3.0		N/A	US	3.2	34	DE	3.3
35	IN	2.9	35	IN	3.0		35	IN	3.1	37	FL	3.0
38	OH	2.8	40	OH	2.8		37	FL	3.0	37	IN	3.0
43	FL	2.6	50	IL	1.7	-	41	OH	2.8	40	OH	2.9

### Table 4.7 (cont.)

### School Administrators

#### **District Administrators**

	2002			2008			2009			2010	
Rank	State	Ratio									
4	OH	3.3	5	MD	3.9	4	MD	4.0	5	MD	4.0
8	VA	2.3	9	DE	2.7	9	DE	2.7	9	DE	2.8
11	DE	2.2	10	WV	2.6	10	WV	2.6	10	WV	2.6
16	IL	1.9	15	MS	2.0	15	MS	2.0	15	MS	2.1
16	MS	1.9	18	MO	1.6	20	AR	1.5	19	KY	1.7
16	ΤX	1.9	22	AR	1.4	22	GA	1.4	20	AR	1.5
19	KY	1.8	22	GA	1.4	22	KY	1.4	20	MO	1.5
20	AL	1.6	22	KY	1.4	22	MO	1.4	24	GA	1.4
21	AR	1.4	22	OH	1.4	22	VA	1.4	24	ΤX	1.4
23	MO	1.3	27	VA	1.3	26	ΤX	1.3	N/A	US	1.3
N/A	US	1.3	29	ΤX	1.2	N/A	US	1.3	27	IL	1.3
26	NC	1.2	N/A	US	1.2	30	AL	1.2	27	VA	1.3
26	TN	1.2	32	IN	1.1	30	OH	1.2	29	AL	1.2
31	GA	1.1	32	NC	1.1	35	NC	1.1	29	OH	1.2
31	OK	1.1	38	OK	0.9	35	IL	1.1	32	IN	1.1
31	WV	1.1	39	FL	0.8	35	IN	1.1	32	NC	1.1
35	MD	1.0	39	SC	0.8	40	OK	0.9	40	SC	1.0
38	IN	0.9	44	IL	0.6	40	SC	0.9	41	OK	0.9
43	FL	0.6	45	LA	0.5	43	FL	0.8	43	FL	0.7
46	LA	0.5	49	AL	0.4	46	LA	0.5	45	LA	0.6
50	SC	0.3	51	TN	0.2	50	TN	0.2	50	TN	0.2

Source: US. Dept. of Ed. Inst. Natl. Public Elementary.

# Chapter 5

### **Student Achievement**

This chapter presents National Assessment of Educational Progress (NAEP) scores, participation rates and test scores for the ACT and Advanced Placement, and graduation rates.

Given the pivotal role of achievement measures in states' efforts to hold educators accountable, it is important to bear in mind that differences in student characteristics have an impact on state rankings. Average test scores tend to be lower in states that have relatively more impoverished students, students with disabilities, English learners, and students who are neither white nor Asian. Compared to rest of the nation, Kentucky has more impoverished students and students with disabilities, but fewer English learners and non-white students.

#### **National Assessment of Educational Progress**

NAEP reading and math tests are administered to random samples of students in grades 4 and 8 every other year (US. Dept. of Ed. Inst. Natl. *NAEP Overview*). Some students with disabilities and English learners use accommodations, such as readers or extra time, or are exempt from taking the exam. Despite the issuance of federal guidelines on these practices, there is considerable variation among states and from year to year in the percentages of students excluded or given accommodations. Kentucky tends to have higher exclusion rates and lower accommodation rates; in other words, if a student is expected to have difficulties with the test, Kentucky is more likely to exempt that student than to find accommodations that will allow the student to take the test. Exclusion and accommodation percentages are relatively small, but policy makers are concerned, and researchers have been attempting for several years to determine the extent of any distortions in test results (US. Dept. of Ed. Inst. Natl. "A Closer").

As Table 5.1 shows, Kentucky's average grade 4 math score was on par with that of the nation, after having been significantly below the national average in 2003; the state's rank jumped from 39<sup>th</sup> in 2003 to 24<sup>th</sup> in 2011. The average grade 8 math score, too, was on par with the national average in 2011, after having been significantly below the national average in 2009. However, Kentucky's grade 4 and grade 8 math scores did not change significantly between the 2009 and 2011 administrations of NAEP.

Kentucky's average grade 4 and grade 8 NAEP reading scores, shown in Table 5.2, were significantly above the national averages. Between 2003 and 2011, Kentucky's rank for grade 4 improved from 25<sup>th</sup> to 10<sup>th</sup> and the rank for grade 8 improved from 17<sup>th</sup> to 12<sup>th</sup>. However, between 2009 and 2011, Kentucky's scores did not change significantly.

					Gra	de 4							
	20	03			20	09		2011					
Rank	State	Score	Sig	Rank	State	Score	Sig	Rank	State	Score	Sig		
2	NC	242	>	9	MD	244	>	5	MD	247	>		
9	VA	239	>	9	NC	244	>	9	NC	245	>		
11	IN	238	>	9	OH	244	>	9	VA	245	>		
11	OH	238	>	16	IN	243	>	13	IN	244	>		
17	ΤX	237	>	16	VA	243	>	13	OH	244	=		
20	DE	236	>	20	FL	242	>	24	KY	241	N/A		
20	SC	236	>	24	MO	241	=	24	ΤX	241	=		
27	MO	235	>	27	ΤX	240	=	27	DE	240	=		
N/A	US	235	>	N/A	US	240	=	27	FL	240	=		
32	FL	234	>	29	DE	239	=	27	MO	240	=		
33	IL	233	>	29	KY	239	N/A	N/A	US	240	=		
33	MD	233	>	33	AR	238	=	32	IL	239	=		
36	WV	231	=	33	IL	238	=	34	AR	238	=		
37	GA	230	=	36	OK	237	=	34	GA	238	=		
39	AR	229	=	38	GA	236	=	37	OK	237	<		
39	KY	229	N/A	38	SC	236	<	37	SC	237	=		
39	OK	229	=	43	WV	233	<	43	WV	235	<		
43	ΤN	228	=	44	ΤN	232	<	46	ΤN	233	<		
47	LA	226	=	48	LA	229	<	48	AL	231	<		
48	AL	223	<	49	AL	228	<	48	LA	231	<		
48	MS	223	<	50	MS	227	<	50	MS	230	<		

Table 5.1
National Assessment of Educational Progress, Mathematics, 2003, 2009, and 2011

					Grae	de 8							
	20	03			20	)09		2011					
Rank	State	Score	Sig	Rank	State	Score	Sig	Rank	State	Score	Sig		
14	OH	282	>	12	MD	288	>	10	ΤX	290	>		
14	VA	282	>	15	IN	287	>	12	OH	289	>		
18	IN	281	>	15	ΤX	287	>	12	VA	289	>		
18	NC	281	>	19	MO	286	>	17	MD	288	>		
26	MO	279	>	19	OH	286	>	21	NC	286	>		
29	MD	278	>	19	VA	286	>	23	IN	285	=		
30	DE	277	=	25	DE	284	>	27	DE	283	=		
30	IL	277	=	25	NC	284	>	27	IL	283	=		
30	SC	277	=	32	IL	282	=	N/A	US	283	=		
30	ΤX	277	=	N/A	US	282	>	32	KY	282	N/A		
N/A	US	276	=	33	SC	280	=	32	MO	282	=		
35	KY	274	N/A	34	FL	279	=	34	SC	281	=		
36	OK	272	=	34	KY	279	N/A	37	AR	279	=		
38	FL	271	=	36	GA	278	=	37	OK	279	=		
38	WV	271	=	40	AR	276	=	40	FL	278	=		
41	GA	270	<	40	OK	276	<	40	GA	278	>		
42	TN	268	<	41	ΤN	275	<	45	TN	274	>		
45	AR	266	<	44	LA	272	<	46	LA	273	>		
45	LA	266	<	44	WV	270	<	46	WV	273	>		
49	AL	262	<	48	AL	269	<	49	AL	269	>		
50	MS	261	<	49	MS	265	<	49	MS	269	>		

Note: > indicates states significantly higher than Kentucky, = indicates states not significantly different, and < indicates states significantly lower than Kentucky. Source: US. Dept. of Ed. Inst. Natl. NAEP Data.

Office of Education Acco	untability
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Table 5.2
National Assessment of Educational Progress, Reading, 2003, 2009, and 2011

					G	Frade 4							
	20	03			20	09		2011					
Rank	State	Score	Sig	Rank	State	Score	Sig	Rank	State	Score	Sig		
6	DE	224	>	6	VA	227	=	2	MD	231	>		
9	VA	223	=	7	DE	226	=	8	VA	226	=		
13	MO	222	=	7	FL	226	=	10	DE	225	=		
13	OH	222	=	7	KY	226	N/A	10	FL	225	=		
19	NC	221	=	7	MD	226	=	10	KY	225	N/A		
23	IN	220	=	14	OH	225	=	14	OH	224	=		
25	KY	219	N/A	17	MO	224	=	23	GA	221	<		
25	MD	219	=	22	IN	223	=	23	IN	221	<		
25	WV	219	=	N/A	US	220	<	23	NC	221	=		
31	FL	218	=	30	IL	219	<	30	AL	220	<		
34	IL	216	=	30	NC	219	<	30	MO	220	<		
N/A	US	216	=	30	ΤX	219	<	N/A	US	220	<		
36	SC	215	=	34	GA	218	<	34	IL	219	<		
36	ΤX	215	=	37	OK	217	<	36	ΤX	218	<		
38	AR	214	=	37	TN	217	<	37	AR	217	<		
38	GA	214	<	39	AL	216	<	39	OK	215	<		
38	OK	214	<	39	AR	216	<	39	SC	215	<		
41	TN	212	<	39	SC	216	<	39	ΤN	215	<		
45	AL	207	<	42	WV	215	<	43	WV	214	<		
48	LA	205	<	43	MS	211	<	47	LA	210	<		
48	MS	205	<	50	LA	207	<	48	MS	209	<		

#### Grade 8

	20	03			20	09		2011						
Rank	State	Score	Sig	Rank	State	Score	Sig	Rank	State	Score	Sig			
7	VA	268	=	11	OH	269	=	7	MD	271	=			
13	MO	267	=	14	KY	267	N/A	12	KY	269	N/A			
13	OH	267	=	14	MD	267	=	15	OH	268	=			
17	IL	266	=	14	MO	267	=	20	MO	267	=			
17	KY	266	N/A	20	IN	266	=	20	VA	267	=			
22	DE	265	=	20	VA	266	=	25	DE	266	<			
22	IN	265	=	25	DE	265	=	25	IL	266	=			
31	MD	262	=	25	IL	265	=	28	IN	265	<			
31	NC	262	=	30	FL	264	=	N/A	US	264	<			
31	OK	262	=	N/A	US	262	<	33	NC	263	<			
N/A	US	261	=	33	TN	261	<	34	FL	262	<			
35	WV	260	=	34	GA	260	<	34	GA	262	<			
36	ΤX	259	<	34	NC	260	<	36	ΤX	261	<			
37	AR	258	<	34	ΤX	260	<	38	OK	260	<			
37	GA	258	<	39	OK	259	<	38	SC	260	<			
37	SC	258	<	41	AR	258	<	41	AR	259	<			
37	TN	258	<	42	SC	257	<	41	TN	259	<			
41	FL	257	<	43	AL	255	<	43	AL	258	<			
43	MS	255	<	43	WV	255	<	46	WV	256	<			
45	AL	253	<	49	LA	253	<	48	LA	255	<			
45	LA	253	<	50	MS	251	<	50	MS	254	<			

Note: > indicates states significantly higher than Kentucky, = indicates states not significantly different, and < indicates states significantly lower than Kentucky. Source: US. Dept. of Ed. Inst. Natl. *NAEP Data*.

### **ACT Participation and Scores**

The ACT exam measures readiness to pursue college-level course work. Table 5.3 ranks states by the percentages of high school graduates who took the ACT at any time during high school, average scores for each part of the test, and averages on the composite of all parts combined.

ACT scores should not be compared for states that have very different participation rates because scores are lower where participation is higher. This explains why Kentucky's rank on the ACT composite dropped from 35<sup>th</sup> in 2008, when 72 percent of graduates had taken the test, to 49<sup>th</sup> the following year, when 100 percent had taken the test. Other states have seen similar drops in scores when they began requiring that the test be administered to all students.

Another factor that limits comparability among states is that Kentucky's students are required to take the ACT in grade 11, whereas students in most other states may take the test in any grade, with many choosing to wait until grade 12, when they are better prepared. Note that, although all Kentucky high school juniors take the ACT, only those who graduated from high school are included in state rankings. Students may retake the ACT as many times as they wish, provided they pay the test fee; the official score is the highest score attained among all attempts.

In Kentucky as well as other states, if a student takes the ACT more than once, the highest score is reported.

Kentucky's 2011 scores were up slightly from 2010 levels, but rankings remained low, ranging from 46<sup>th</sup> for science to 49<sup>th</sup> for mathematics. However, Kentucky's ranking of 49<sup>th</sup> on mathematics is based on only a 2-point difference from the national average (19.1 vs. 21.1). Many state averages cluster closely together.

Table 5.3
ACT Participation Rates and Average Scores, 2008, 2009, 2010, and 2011

					Particip	ation Rate	9				
	2008			2009			2010			2011	
Rank	State	Rate	Rank	State	Rate	Rank	ank State R		Rank	State	%
3	IL	98	1	KY	100	1	IL	100	1	IL	100
4	MS	92	5	IL	97	1	KY	100	1	KY	100
5	LA	88	6	MS	93	1	TN	100	1	LA	100
5	TN	88	7	TN	92	7	LA	98	1	MS	100
9	AL	77	8	LA	89	8	MS	96	1	TN	100
11	AR	74	10	AL	76	9	AR	81	10	AR	91
13	KY	72	13	AR	73	12	AL	78	11	AL	81
15	OK	70	15	OK	71	15	OK	73	14	OK	76
16	MO	69	18	MO	67	18	MO	69	19	MO	71
20	OH	65	21	OH	64	21	OH	66	21	OH	69
21	WV	64	22	FL	62	22	FL	65	22	FL	66
26	FL	52	22	WV	62	23	WV	64	23	WV	65
27	SC	44	27	SC	50	27	SC	52	27	SC	56
N/A	US	43	N/A	US	45	N/A	US	47	N/A	US	49
28	GA	38	28	GA	40	28	GA	44	28	GA	47
32	ΤX	29	30	ΤX	30	30	ΤX	33	30	ТΧ	36
37	IN	22	35	IN	24	36	IN	26	34	IN	29
38	VA	19	39	VA	20	41	VA	22	39	VA	24
43	MD	16	43	MD	17	44	MD	18	43	MD	20
46	NC	14	45	NC	15	48	NC	16	46	NC	18
49	DE	11	49	DE	11	49	DE	13	49	DE	16

**Participation Rate** 

**Composite Average** 

	2008			2009			2010			2011	
Rank	State	Score									
9	DE	22.6	11	DE	22.6	8	DE	23.0	11	DE	22.4
16	IN	22.0	14	IN	22.2	12	IN	22.3	12	IN	22.3
16	MD	22.0	16	MD	22.1	12	MD	22.3	12	VA	22.3
23	VA	21.8	21	VA	21.9	12	VA	22.3	17	MD	22.1
25	OH	21.7	25	OH	21.7	21	NC	21.9	22	NC	21.9
26	MO	21.6	26	MO	21.6	23	OH	21.8	23	OH	21.8
30	NC	21.3	26	NC	21.6	27	MO	21.6	27	MO	21.6
N/A	US	21.1	N/A	US	21.1	N/A	US	21.0	N/A	US	21.1
35	KY	20.9	34	IL	20.8	33	ΤX	20.8	32	IL	20.9
36	IL	20.7	34	ΤX	20.8	34	GA	20.7	33	ΤX	20.8
36	OK	20.7	37	OK	20.7	34	IL	20.7	34	OK	20.7
36	ΤN	20.7	37	WV	20.7	34	OK	20.7	37	GA	20.6
36	ΤX	20.7	39	AR	20.6	34	WV	20.7	37	WV	20.6
36	WV	20.7	39	GA	20.6	39	AL	20.3	39	AL	20.3
41	AR	20.6	39	TN	20.6	39	AR	20.3	41	LA	20.2
41	GA	20.6	42	AL	20.3	41	LA	20.1	42	SC	20.1
44	AL	20.4	43	LA	20.1	43	SC	20.0	45	AR	19.9
45	LA	20.3	46	SC	19.8	48	TN	19.6	48	FL	19.6
47	SC	19.9	48	FL	19.5	49	FL	19.5	48	KY	19.6
48	FL	19.8	49	KY	19.4	50	KY	19.4	50	ΤN	19.5
51	MS	18.9	51	MS	18.9	51	MS	18.8	51	MS	18.7

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					Englis	ı A	verage						
	2008			2009		•		2010		-		2011	
Rank	State	Score	Rank	State	Score		Rank	State	Score		Rank	State	Score
9	DE	22.2	10	DE	22.2		6	DE	22.8		11	VA	22.1
17	MD	21.6	12	MD	21.9		12	MD	22.0		12	DE	22.0
18	VA	21.5	16	VA	21.7		12	VA	22.0		14	MD	21.8
20	IN	21.4	19	IN	21.6		16	IN	21.7		16	IN	21.7
20	MO	21.4	20	MO	21.5		18	MO	21.5		20	MO	21.5
26	OH	21.1	26	OH	21.1		24	OH	21.2		24	NC	21.2
27	TN	20.8	27	NC	20.9		26	NC	21.1		25	OH	21.1
27	WV	20.8	31	WV	20.8		30	WV	20.7		29	IL	20.6
30	AR	20.7	32	TN	20.7		N/A	US	20.5		N/A	US	20.6
34	AL	20.6	34	AR	20.6		33	AL	20.4		29	WV	20.6
N/A	US	20.6	N/A	US	20.6		33	OK	20.4		33	OK	20.5
35	KY	20.5	35	AL	20.5		35	IL	20.3		34	AL	20.4
35	LA	20.5	35	IL	20.5		37	AR	20.1		34	LA	20.4
35	NC	20.5	35	OK	20.5		37	GA	20.1		37	GA	20.1
35	OK	20.5	39	LA	20.3		37	LA	20.1		41	AR	19.6
39	IL	20.4	40	GA	20.1		41	ΤX	19.7		41	ΤX	19.6
42	GA	20.1	43	ΤX	19.9		43	TN	19.4		43	SC	19.4
44	ΤX	19.8	45	SC	19.2		45	SC	19.2		43	TN	19.4
47	MS	19.3	46	MS	19.1		47	KY	18.9		47	KY	19.2
48	SC	19.2	49	KY	18.8		50	FL	18.6		49	FL	18.8
49	FL	19.0	50	FL	18.7		50	MS	18.6	_	50	MS	18.6

### Table 5.3 (cont.)

**Mathematics Average** 

	2008			2009			2010			2011	
Rank	State	Score									
9	DE	22.5	11	DE	22.5	11	DE	22.7	13	DE	22.4
15	IN	22.2	13	IN	22.4	12	IN	22.4	13	IN	22.4
17	MD	22.0	16	MD	22.1	14	MD	22.3	13	NC	22.4
21	NC	21.8	19	NC	22.0	14	NC	22.3	16	MD	22.2
21	VA	21.8	21	VA	21.8	17	VA	22.1	16	VA	22.2
27	OH	21.5	28	OH	21.4	25	OH	21.5	26	OH	21.5
31	ΤX	21.2	31	ΤX	21.3	28	ΤX	21.4	26	ΤX	21.5
34	MO	21.0	N/A	US	21.0	33	MO	21.0	N/A	US	21.1
N/A	US	21.0	34	MO	20.9	N/A	US	21.0	32	MO	21.0
36	IL	20.7	35	IL	20.7	34	GA	20.7	33	IL	20.9
37	GA	20.6	36	GA	20.6	34	IL	20.7	35	GA	20.7
39	KY	20.2	38	AR	20.1	38	SC	20.1	37	SC	20.3
40	AR	20.1	39	SC	20.0	39	AR	19.9	41	FL	19.9
40	SC	20.1	40	OK	19.9	39	OK	19.9	41	OK	19.9
42	FL	20.0	41	TN	19.8	43	FL	19.7	44	AR	19.7
43	ΤN	19.9	43	FL	19.7	46	LA	19.6	44	LA	19.7
44	OK	19.8	44	LA	19.6	46	WV	19.6	46	AL	19.6
46	LA	19.7	44	WV	19.6	48	AL	19.5	47	WV	19.5
47	WV	19.6	48	AL	19.5	49	KY	19.1	49	KY	19.1
48	AL	19.5	50	KY	19.0	50	ΤN	19.0	50	TN	19.0
51	MS	18.2	51	MS	18.3	51	MS	18.3	51	MS	18.2

Continues on next page.

					Readin	g A	Average						
	2008			2009		• •		2010		-		2011	
Rank	State	Score	Rank	State	Score		Rank	State	Score	-	Rank	State	Score
8	DE	23.1	10	DE	23.1		7	DE	23.4	_	11	DE	22.7
15	IN	22.5	14	IN	22.6		13	IN	22.6		11	VA	22.7
20	MD	22.3	17	MD	22.5		15	VA	22.5		14	IN	22.6
24	VA	22.2	23	VA	22.3		17	MD	22.4		20	MD	22.2
26	OH	22.1	26	OH	22.2		23	NC	22.2		20	NC	22.2
27	MO	22.0	27	MO	22.1		24	OH	22.1		24	OH	22.1
32	NC	21.7	29	NC	21.9		26	MO	22.0		27	MO	21.9
35	KY	21.5	33	OK	21.4		N/A	US	21.3		31	OK	21.3
N/A	US	21.4	N/A	US	21.4		33	WV	21.3		N/A	US	21.3
36	OK	21.4	33	WV	21.4		34	OK	21.2		33	WV	21.2
36	WV	21.4	37	AR	21.0		36	GA	20.9		35	GA	20.8
38	TN	21.1	37	TN	21.0		37	IL	20.8		35	IL	20.8
39	AR	21.0	39	GA	20.9		37	ΤX	20.8		39	AL	20.7
41	GA	20.9	39	ΤX	20.9		39	AL	20.7		39	ΤX	20.7
41	ТΧ	20.9	41	IL	20.8		40	AR	20.6		42	LA	20.3
43	AL	20.8	42	AL	20.7		43	LA	20.2		42	SC	20.3
45	IL	20.6	45	FL	20.2		46	FL	20.1		44	AR	20.2
46	FL	20.3	45	LA	20.2		47	SC	20.0		44	FL	20.2
46	LA	20.3	47	SC	19.9		48	TN	19.9		<b>48</b>	KY	20.0
48	SC	20.0	48	KY	19.8		49	KY	19.7		50	TN	19.7
51	MS	19.1	51	MS	19.0		51	MS	18.8	_	51	MS	18.8

### Table 5.3 (cont.)

Science Average

	2008			2009		-		2010				2011	
Rank	State	Score	Rank	State	Score	-	Rank	State	Score	R	ank	State	Score
10	DE	22.0	12	DE	22.0	-	7	DE	22.5		14	DE	22.0
16	OH	21.7	17	OH	21.7		15	IN	21.9		17	IN	21.9
20	IN	21.5	19	IN	21.6		15	VA	21.9		19	OH	21.8
22	MD	21.4	22	MD	21.5		20	MD	21.8		19	VA	21.8
22	MO	21.4	22	MO	21.5		20	OH	21.8		23	MD	21.6
24	VA	21.3	25	VA	21.4		22	MO	21.6		23	MO	21.6
33	NC	20.8	29	NC	21.1		22	NC	21.6		26	NC	21.4
N/A	US	20.8	N/A	US	20.9		32	ΤX	20.9	Γ	V/A	US	20.9
35	KY	20.7	34	IL	20.7		N/A	US	20.9		32	ΤX	20.8
36	IL	20.5	36	ΤX	20.6		35	OK	20.6		34	IL	20.7
36	ΤX	20.5	37	OK	20.5		35	WV	20.6		36	OK	20.6
36	WV	20.5	37	WV	20.5		37	GA	20.5		37	WV	20.5
39	OK	20.4	39	TN	20.4		37	IL	20.5		39	GA	20.3
41	AR	20.3	40	GA	20.3		39	AL	20.2		41	AL	20.1
41	GA	20.3	41	AR	20.2		39	AR	20.2		41	LA	20.1
41	TN	20.3	43	AL	20.1		39	LA	20.2		41	SC	20.1
45	AL	20.1	45	LA	20.0		44	SC	20.0		45	AR	19.8
46	LA	20.0	47	SC	19.8		47	TN	19.6		46	KY	19.6
48	SC	19.7	48	KY	19.7		48	KY	19.5		48	TN	19.4
49	FL	19.3	49	FL	19.0		50	FL	19.1		50	FL	19.1
50	MS	18.7	50	MS	18.7		51	MS	18.8		51	MS	18.7

Source: ACT.

Table 5.4 compares Kentucky's ACT scores to those of the nine other states that had participation rates over 90 percent in 2011, including four that are not among the peer states shown throughout this compendium. Kentucky's average scores are within 2 points of the highest averages among states with universal administration.

Percent	Tested	Com	posite	Eng	glish	Math	ematics	Rea	ding	Sci	ence
State	%	State	Score	State	Score	State	Score	State	Score	State	Scor
СО	100	IL	20.9	IL	20.6	IL	20.9	СО	20.9	ND	20.
IL	100	CO	20.7	LA	20.4	ND	20.8	IL	20.8	CO	20.
KY	100	ND	20.7	CO	20.1	CO	20.4	ND	20.8	IL	20.
LA	100	WY	20.3	ND	19.8	WY	20.0	WY	20.8	WY	20.
MI	100	LA	20.2	AR	19.6	MI	19.9	LA	20.3	MI	20.
MS	100	MI	20.0	TN	19.4	AR	19.7	AR	20.2	LA	20.
TN	100	AR	19.9	WY	19.4	LA	19.7	MI	20.1	AR	19.
WY	100	KY	19.6	MI	19.3	KY	19.1	KY	20.0	KY	19.
ND	98	TN	19.5	KY	19.2	TN	19.0	TN	19.7	TN	19.
AR	91	MS	18.7	MS	18.6	MS	18.2	MS	18.8	MS	18.

 Table 5.4

 Average ACT Scores for States With Participation Rates Over 90 Percent, 2011

Source: ACT.

### **Advanced Placement Exams**

Advanced Placement (AP) courses and exams provide high school students early access to college-level learning. Most colleges and universities use AP exam results in the admissions process to gauge a student's ability and to award college credit or placement into higher-level college courses. Students in 10<sup>th</sup> grade or higher are eligible to take AP exams. Scores range from 1 to 5; scores of 3 or above are considered passing and eligible for college credit.

Advance Kentucky provides considerable support and incentives to boost the number of Advanced Placement exams taken by students. As a result, the percentages of students taking and passing Advanced Placement exams continue to increase. As Table 5.5 shows, Kentucky high school graduates' participation in Advanced Placement exams almost doubled between 2002 and 2010, increasing from 12.6 percent of graduates to 24.4 percent. Kentucky's ranking rose from 33<sup>rd</sup> to 26<sup>th</sup>. The percentage of students earning passing scores on the exams also improved dramatically, from 6.5 percent and a rank of 40<sup>th</sup> to 12.2 percent and a rank of 30<sup>th</sup>.

			Perce	ntage of	Students	Attemptin	ng an Exa	ım			
	2002			2008			2009			2010	
Rank	State	%	Rank	State	%	Rank	State	%	Rank	State	%
2	VA	26.9	1	MD	37.6	1	FL	40.2	1	FL	43.5
4	FL	24.9	3	VA	34.1	2	MD	40.0	2	MD	43.4
6	MD	23.5	4	FL	34.0	4	VA	36.4	3	VA	38.1
7	NC	23.1	5	AR	33.3	5	AR	34.0	5	GA	37.3
11	SC	20.9	8	GA	30.3	6	GA	33.6	6	AR	36.6
14	GA	19.8	13	NC	28.4	12	NC	29.1	13	ΤX	30.2
15	ТΧ	19.3	15	ΤX	27.5	13	ΤX	28.7	14	IN	29.3
N/A	US	18.1	17	DE	26.8	16	DE	27.0	15	NC	28.8
19	IL	16.2	N/A	US	25.0	N/A	US	26.5	N/A	US	28.3
24	DE	15.3	22	SC	23.1	20	SC	26.0	18	DE	28.1
29	OK	13.6	23	IL	22.8	23	IL	24.5	20	SC	26.8
30	IN	13.5	30	OK	20.1	25	KY	22.0	22	IL	26.3
31	OH	13.3	31	IN	19.8	31	IN	20.7	26	KY	24.4
33	KY	12.6	31	KY	19.8	32	OK	19.6	32	OK	20.8
35	TN	11.9	34	OH	17.6	35	OH	17.9	35	AL	19.5
41	WV	10.7	36	TN	16.5	36	TN	17.6	36	OH	18.9
43	AR	9.8	39	WV	15.3	38	WV	17.2	37	TN	18.6
44	AL	8.8	45	AL	13.5	40	AL	16.3	38	WV	18.4
48	MO	7.2	47	MS	12.6	47	MS	12.9	47	MS	14.1
49	MS	7.1	48	MO	10.8	49	MO	12.3	48	MO	13.4
51	LA	3.7	51	LA	8.4	51	LA	9.5	50	LA	11.4

Table 5.5
Advanced Placement Exams for Graduating Classes of 2002, 2008, 2009, and 2010

### Students With Passing Score(s) as a Percentage of All Students

-											
	2002			2008			2009			2010	
Rank	State	%									
3	VA	16.9	1	MD	23.6	1	MD	24.8	1	MD	26.4
5	MD	16.4	3	VA	21.3	3	VA	22.9	3	VA	23.7
8	FL	15.2	10	FL	18.2	5	FL	21.3	6	FL	22.3
11	NC	13.7	12	NC	17.3	13	GA	17.8	11	GA	19.1
12	SC	12.7	15	GA	16.3	14	NC	17.4	15	NC	17.5
16	IL	11.7	18	IL	15.2	17	IL	15.9	16	IL	17.2
N/A	US	11.7	N/A	US	15.2	N/A	US	15.9	N/A	US	16.9
17	GA	11.2	19	ΤX	14.5	20	ΤX	14.9	20	ΤX	15.5
18	ΤX	11.1	21	DE	13.8	21	SC	14.8	21	DE	15.4
26	DE	9.3	21	SC	13.8	23	DE	14.3	22	SC	15.1
28	OH	8.3	28	OH	10.8	28	AR	11.0	28	AR	12.5
33	IN	7.3	29	AR	10.6	28	OH	11.0	29	IN	12.4
34	TN	7.2	31	IN	10.0	30	KY	10.8	30	KY	12.2
35	OK	7.1	31	KY	10.0	33	IN	10.4	31	OH	11.8
40	KY	6.5	34	OK	9.7	36	OK	9.5	36	OK	10.3
44	WV	5.2	38	TN	9.2	37	TN	9.3	38	TN	9.7
46	AR	5.0	44	WV	6.9	44	WV	7.6	41	AL	9.0
47	AL	4.8	47	AL	6.8	45	AL	7.5	45	WV	7.6
48	MO	4.7	48	MO	6.5	46	MO	7.1	46	MO	7.5
50	MS	3.0	50	MS	3.9	50	LA	4.1	50	LA	4.6
51	LA	2.0	51	LA	3.7	51	MS	4.0	51	MS	4.4

Source: College Board.

### **Graduation Rates**

The US Department of Education defines "graduation" as completing a standard diploma within 4 years. The department also allows Kentucky and some other states to also count those who required more than 4 years to earn a standard diploma if their IEPs specified more than 4 years. However, those without such IEPs are not counted as graduates if the diploma required more than 4 years. Also not counted are those earning nonstandard diplomas, such as certificates of completion, and nongraduates who passed the GED exam.

Historically, states' formulas for calculating graduation rates varied substantially, and all had data quality issues. The US Department of Education is pressing states to implement systems to accurately track each cohort of ninth graders through high school so that a more accurate "cohort graduation rate" can be calculated. Kentucky will begin officially reporting the cohort graduation rate in 2014 (Commonwealth. Dept. *Briefing* 6).

Until cohorts can be tracked, states are required to use the Averaged Freshman Graduation Rate (AFGR), which divides the number of diploma recipients in a given year by the average membership of the graduating class during grades 8, 9, and 10. This formula improves comparability but has limitations; for example, it does not adjust for student transfers.<sup>1</sup>

As Table 5.6 shows, the AFGR fluctuates, and state rankings change from year to year. From a rank of 38<sup>th</sup> in 2002, Kentucky jumped to 23<sup>rd</sup> in 2006, but then declined to 32<sup>nd</sup> in 2008. For the 2009 graduating class, Kentucky was again ranked 23<sup>rd</sup>, with an AFGR of 77.6 percent compared to a national rate of 75.5 percent.

<sup>&</sup>lt;sup>1</sup>It should be noted that the AFGR formula that Kentucky uses for reporting within the state differs slightly from the formula that the National Center for Education Statistics (NCES) uses for these state comparisons. While the AFGR formula used for reporting within Kentucky has only grades 9 and 10 in the denominator, the denominator of the formula used by NCES for state comparisons, as shown in Table 5.6, has grades 8 through 10 in the denominator.

		0					<i>,</i>	, î		<i>,</i>		
	2002			2007				2008			2009	
Rank	State	%	Rank	State	%	R	ank	State	%	Rank	State	%
11	MD	79.7	10	MO	81.9		11	MO	82.4	9	MO	83.1
17	OH	77.5	16	MD	80.0		15	IL	80.4	16	MD	80.1
18	IL	77.1	17	IL	79.5		15	MD	80.4	18	OH	79.6
20	MO	76.8	19	OH	78.7		20	OH	79.0	20	VA	78.4
21	VA	76.7	22	WV	78.2		21	OK	78.0	21	IL	77.7
22	OK	76.0	23	OK	77.8		22	WV	77.3	23	KY	77.6
25	AR	74.8	27	KY	76.4		23	VA	77.0	24	TN	77.4
29	WV	74.2	29	VA	75.5		25	AR	76.4	25	OK	77.3
30	ΤX	73.5	32	AR	74.4		31	TN	74.9	26	WV	77.0
31	IN	73.1	33	IN	73.9	N	I/A	US	74.9	N/A	US	75.5
N/A	US	72.6	N/A	US	73.9		32	KY	74.4	29	ΤX	75.4
38	KY	69.8	35	ΤN	72.6		34	IN	74.1	33	IN	75.2
39	DE	69.5	36	DE	71.9		35	ΤX	73.1	35	NC	75.1
41	NC	68.2	36	ΤX	71.9		36	NC	72.8	36	AR	74.0
44	LA	64.4	42	NC	68.6		37	DE	72.1	37	DE	73.7
45	FL	63.4	43	AL	67.1		43	AL	69.0	43	AL	69.9
46	AL	62.1	44	FL	65.0		44	FL	66.9	44	FL	68.9
47	MS	61.2	45	GA	64.1		46	GA	65.4	45	GA	67.8
48	GA	61.1	46	MS	63.6		47	MS	63.9	46	LA	67.3
50	TN	59.6	47	LA	61.3		48	LA	63.5	47	SC	66.0
51	SC	57.9	49	SC	58.9			SC		50	MS	62.0

Table 5.6Averaged Freshman Graduation Rate, 2002, 2007, 2008, and 2009

Sources: US. Dept. of Ed. Inst. Natl. Public School and High.

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