

2012 ACT Results and Kansas College Readiness

Kansas Association of School Boards

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America College Testing, Inc. released the national and state ACT Profile Reports in August. The reports not only provide a detailed look at student test scores, but also who took the test, high school courses taken in preparation for the test and planned majors in college, all of which are self-reported. The ACT is the most important indicator of college readiness for students in Kansas.

College readiness is a critical indicator because postsecondary education is increasingly linked to economic prosperity and security. For example, the most recent data from the U.S. Census Bureau for full-time, year-round workers found that high school drop-outs earned an average of \$24,520 in 2009; high school graduates with no further education earned \$33,213; individuals with one or two years of college earned \$39,867; those with bachelor's degrees earned \$56,472; and those with an advanced or professional degree earned \$74,248.

Perhaps even more significant has been the impact of the Great Recession on jobs based on educational attainment. A new study by the Georgetown University Center for Education and the Workforce shows that during the recession period between December of 2007 and the beginning of the recovery in January 2010, employees with high school diplomas or less lost 5.8 million jobs, those with an associate degree or some other college lost 1.75 million jobs, and those with a bachelor's degree or more actually gained 187,000 jobs. Since the recovery began, jobs requiring a bachelor's degree or more increased by 2.0 million and jobs requiring some college increased by 1.8 million, while jobs requiring only a high school diploma or less declined by an additional 230,000. In other words, the recession hit hardest those with the least education, and many of those low-skill jobs may simply never return. In fact, the study shows that since 1989 the growth in employment has been entirely due to increases in college-educated workers, while workers with a high school diploma or less have lost ground.

For many years, most of the focus on the ACT has been the "composite score," which is essentially the average score for students based on four subject areas: English, Math, Reading and Science. In 2012, the Kansas composite score dropped to 21.9 from 22.0 in 2011. Since the earliest records provided by ACT beginning in 1994, the long-term trend has been upward. The Kansas composite score rose from 21.2 in 1994 to 21.7 in 1997, leveled off to between 21.5 and 21.6 until 2005, when it increased every year until topping at 22.0 in 2008. It has remained between 21.9 and 22.0 every year between 2008 and 2012 – essentially the period when state school aid was reduced or held level.

In 27 states a majority of students take the ACT; in the remaining states, the SAT is predominant. This makes national comparisons difficult, because as a general rule, the higher percentage of students

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taking the test, the lower the composite score tends to be. Kansas has consistently placed among the top-performing ACT-majority states, with the sixth-highest composite score in 2012.

Changes measured in tenths-of-a-point do not sound like much. One reason is the ACT has only a 36-point scale, rather than a 100-point scale. Second, the ACT is a normed-referenced test, which means it is essentially designed to compare students to each other (which groups students around an average), not to a body of knowledge. For example, the top 1% of Kansas students were spread over the top three scores (34-36), while 17% of students were clustered over the three middle scores (20-22).

As a result, KASB decided to focus on another aspect of the ACT report: the percent of students meeting college “benchmarks.” These are scores on the subject area tests that ACT research indicates equals a 50% chance the student will receive at least a “B” in a corresponding college course and a 75% percent chance the student will receive at least a “C.” The percent of students achieving these benchmarks has been reported since 2002.

As the table below shows the percentage of students meeting the benchmark scores in English (72%) and reading (59%) did not change between 2002 and 2012, while math improved from 45% to 51% and science from 30% to 34%, while the percentage of students meeting all four increased from 24% to 28%.

However, these results tell only part of the story, because they include only students who take the test. To see a broader impact, KASB multiplied the percent of students by the percent of total graduates. This provides an indication of how many total graduates met benchmarks, not just those taking the test. Then, KASB multiplied that number by the graduation rate, which indicates the percent of all students in an age group meeting these benchmarks, including drop-outs.

	2002			2012		
	Percent At Benchmark	Percent of Graduates	Percent of Age Cohort	Percent At Benchmark	Percent of Graduates	Percent of Age Cohort
English	72%	54.7%	42.8%	72%	58.3%	49.8%
Math	45%	34.2%	26.8%	51%	41.3%	35.3%
Reading	59%	44.8%	35.1%	59%	47.8%	40.8%
Science	30%	22.8%	17.9%	34%	27.5%	23.5%
All Four	24%	18.2%	14.3%	28%	22.7%	19.4%

These calculations show that a significantly lower percentage of students are meeting the benchmarks because it includes all students, not just those tested. They also show significantly more growth over the past decade, because the percentage of graduates tested increased from 76% in 2002 to 81% in 2012, and the graduation rate increased 78.3% to 85.4%. In other words, Kansas is both graduating a higher percentage of students in each age group and testing a higher percentage of those graduates – and increasing the percentage of college-ready students.

In other words, about half of the students in each age cohort are “college ready” in English, compared to about one-third in math, 40% in reading and one-quarter in science, and just below 20%

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college ready in all four. It is important to put these numbers in the context of academic and economic needs.

The table below compares changes in the education levels of Kansas adults age 25-64 – the primary years in the work force – between 2000 and 2010, compared with a forecast of Kansas jobs by education level in 2018 developed by the Center for Education and the Workforce.

Education Level	Percent of Kansas Adults 25-64		Estimated Kansas Jobs Forecasted
	2000	2010	2018
High School Drop-Outs	21.7%	9.5%	9.3%
High School Only	42.8%	50.0%	28.3%
Some College, No Degree	*	*	8.7%
A.A. Degree Only	6.8%	8.4%	24.2%
Bachelor's Degree Only	19.3%	21.2%	20.7%
Graduate/Professional	9.4%	10.9%	8.8%
A.A. or Higher	35.5%	40.5%	53.7%
Bachelor's or Higher	28.7%	32.1%	29.5%

* Some College, No Degree included with High School Only

Over the past decade, the percent of Kansans age 25-64 without at least a high school diploma has been cut in half, and the percent at each higher level of education has increased. This has an important impact because every higher level of education on average equals a significantly higher level of income, and a significantly lower unemployment rate. The fact that Kansas ranked 12th in the nation in adults with at least a high school diploma, 13th in bachelor's degree completion and 23rd in advanced degrees certainly contributed to the state's relatively low unemployment rate and high per capita income in the region.

In fact, the Kansas workforce is already very close to the projected needs in 2018 for high school drop-outs, and slightly over the projected needs for bachelor's and advanced degrees. Where the state has the biggest shortfall is in two-year associate's degrees and postsecondary education beyond high school but less than a two-year A.A. These are the job areas and skills targeted by the Career Technical Education bill proposed by Governor Brownback and passed by the 2012 Legislature. Unfortunately, we do not have a baseline of numbers for these credentials in the state population.

It is also noteworthy that the current percentage of students meeting the ACT college ready benchmarks meet or exceed the current education adult levels in English and Reading for two-year degrees and higher, and meet the benchmarks for English, Reading and Math for four-year degrees and higher both currently and for the projected number of jobs in 2018. Put another way, in three of the four college readiness areas, enough Kansas students are being prepared to meet the job requirements for four-year degrees and higher, but significantly more need to be prepared for two-year degrees or some other postsecondary setting. Also, Kansas falls significantly short in preparation for college science. (Science is also the subject not required to be tested under the No Child Left Behind act.)

Continuing to raise college readiness and completion is important to meet the workforce needs of the state and provide more students with jobs that pay at least an income to support a “middle class” lifestyle – jobs that almost always require some postsecondary training, if not an associate’s degree or higher. However, this progress will be challenging for several reasons.

Challenges:

Rank and Resources. First, Kansas is already near the top of the nation – or at least the 27 ACT-majority states – in college readiness. As Table 1 at the end of this report shows, Kansas ranks seventh out of 27 in the percentage of students tested meeting all four benchmarks. However, Kansas ranks quite high in the percentage of graduates tested (except for the eight states where all graduates are required to take the ACT). Comparing Kansas’ percentage meeting all four benchmarks out of total graduates moves Kansas up to fifth. Making the calculation for the percentage of the total age cohort meeting the benchmarks places Kansas in a three-way tie for fifth.

Moreover, as Table 2 shows, the six states that rank higher or are tied with Kansas all spend more per pupil (except Colorado), and all have fewer low income students and non-white students (except Illinois). That is important because of the state and national achievement gap, meaning minority and low income students tend to have significantly lower achievement. In short, Kansas is already an “over-achiever” based on its funding and student characteristics.

Kansas has been able to improve its results and maintain a high national rank over a decade in which funding was increased more than the rate of inflation and student growth, especially for “at-risk” students. This allowed school districts to hire more teachers and support staff and develop more programs to keep students in school and help them succeed in college-prep courses. As noted, achievement leveled off during the past several years as districts absorbed cuts in general operating budgets. Future state funding for K-12 education is extremely uncertain.

Ethnic Disparities. The second challenge is the growing percentage of minority students who are far behind in meeting college ready benchmarks. For example, 32% of white students met all four benchmarks in 2012, compared to just 13% for Hispanics and 6% for African Americans. These disparities are similar in other states. However, far more of these students are taking the test than a decade ago. In Kansas, the number of self-identified Hispanics increased by 150% since 2002, from 847 to 2,122; and the number of African Americans increased by 30.2%, from 932 to 1,213.

At the same time, the number of white students tested declined by 20%, from 19,462 to 15,540. The total number of students tested dropped from 23,590 to 21,213. As a result, the percentage of white students dropped from 82.5% of the total in 2002 to 73.3% in 2012. This trend is likely to continue: although 73.3% of students taking the test were white in 2012, only 68.8% of total school enrollment in 2010 was white. Part of the reason may be more minority students in lower grades that will eventually reach high school; the other reason is that minority students are more likely to drop out of school or decide not to take the ACT because they do not plan to go to college. In either case, to meet future needs, Kansas must address a growing percentage of students from groups that have historically been less likely to complete high school and attend or complete college.

Gender Disparity. A third challenge is a major disparity between genders. In 2012, 33% of Kansas males met all four benchmarks but only 25% of females. Nationwide, it was 29% and 22%. Looking at the four individual tests, the reason for the disparity becomes evident. On every English portion the last five years, females outscored males, generally by narrow margins; on reading, males and females scored very similarly. On the math and science portions, not only was the gap reversed, but by much larger margins. In Kansas in 2012, males outscored females on the math portion by a 57-48 margin and a 41-30 margin on the science portion.

Recommendations:

KASB is committed to making Kansas the leading state in the nation in preparing students for success in college and high-paying careers. To that end, we are developing a program called "First in Education, the Kansas Way."

Kansas educational outcomes are at an all-time high and already rank among the nation's best. However, we have to do even better to provide more students with higher skills than were required in the past. *First in Education* is based on three core principles:

- *Raise Standards for Success.* This means implementing new, higher expectations through the No Child Left Behind waiver and new accreditation system under development by the State Board of Education. Specifically: higher "common core" standards for college and career-ready students; improving instruction by focusing teacher and administrator evaluation on student learning; school accountability for higher student achievement levels; and district accreditation based on both test results and effective programs.
- *Finance for Success.* Higher achieving states spend more per pupil than Kansas and Kansas schools have more challenging students. Achieving higher standards requires protecting current funding and providing for rising costs and targeted investments in student support, improved teaching and innovation.
- *Local Leadership.* This means returning more authority and responsibility to local school boards for determining the best way to raise achievement in each community, rather than dictates from the state or federal level. It also means maintaining the constitutional principles that have made Kansas a national education leader, and strengthening parent and public engagement at the local level.

Among other specific recommendations, the KASB Legislative Committee is proposing the following to our membership. We would welcome your comments before our Delegate Assembly votes on these issues in December.

1. Career Programs. We support a program to encourage and support districts adopting student career programs meeting standards adopted by the State Board.

2. Graduation Standards. We support a system to ensure all students graduate high school and meet a higher standard than currently required. This standard should be phased in over time and include at least the following three options: (1) demonstration of minimum level workforce skills, (2)

completion of an industry recognized credential in a career technical education program, or progress toward completion of a program within one to two years of graduation, or (3) meeting "college ready" benchmarks for an academic degree in specific subjects, i.e. reading and math, or additional subjects. KASB supports local flexibility in determining specific standards.

3. Graduation Targets. We believe targets should be set to reach statewide goals of 40% of graduates meeting full college ready standards and an additional 25% completing or on target for one or two-year credentials.

4. Financial Education. We support a requirement that each district develop and implement by 2017 a policy providing for personal financial education for each graduate, based on local needs and capacity.

5. Transition to College. We support creation of an on-going body to coordinate transition from pre-K through K-12 through postsecondary education.

In addition, KASB strongly advocates steps to ensure K-12 general funding be protected from state budget reductions, and believes additional funding must be targeted to the following priority areas:

1. At-Risk Students. To improve mastery of skills and preparation for college and careers for all students, we support the use of free lunch eligibility as the primary factor for at-risk funding in order to provide stable revenues for these successful programs, supplemented by the use of other risk factors.

2. Instruction. To improve instruction, we endorse the State Board's 2013-14 funding request for Professional Development state aid and Teacher Mentoring.

3. Graduation. To improve the graduation rate, we endorse the State Board's 2013-14 funding request for Communities in Schools.

4. Innovation. To promote new ways to achieve these goals, we support creating a grant program for innovative programs and strategies.

5. Program Focus. We would support provisions in each of these programs requiring a focus on raising student mastery of basic skills, improving instruction and evaluation, and increasing the number of college-and career-ready students.

Thank you for your consideration.

Table I: College Benchmark Achievement in ACT-majority States

	High School Completion 2009	Percent Of Grads Tested 2012	% Tested At All 4 Benchmarks	Rank	% of Total Grads at Benchmarks	Rank	% of Total Cohort at Benchmarks	Rank
Minnesota	85.6%	74%	36%	1	26.6%	1	22.8%	1
North Dakota	87.9%	100%	23%	14	23.0%	7	20.2%	2
Colorado	79.1%	100%	25%	11	25.0%	2	19.8%	3
Illinois	77.8%	100%	25%	11	25.0%	2	19.5%	4
Kansas	81.6%	81%	29%	7	23.5%	5	19.2%	5
Wisconsin	87.3%	71%	31%	2	22.0%	9	19.2%	5
Nebraska	82.1%	78%	30%	3	23.4%	6	19.2%	5
South Dakota	78.2%	81%	30%	3	24.3%	4	19.0%	8
Utah	81.7%	97%	23%	13	22.3%	8	18.2%	9
Missouri	81.7%	75%	27%	9	20.3%	11	16.5%	10
Michigan	78.0%	100%	21%	15	21.0%	10	16.4%	11
Iowa	85.1%	63%	30%	3	18.9%	14	16.1%	12
Ohio	80.0%	71%	28%	8	19.9%	13	15.9%	13
Wyoming	78.5%	100%	20%	16	20.0%	12	15.7%	14
Montana	81.2%	61%	30%	3	18.3%	15	14.9%	15
Idaho	79.0%	67%	26%	10	17.4%	16	13.8%	16
Kentucky	77.0%	100%	17%	23	17.0%	17	13.1%	17
Tennessee	78.8%	100%	16%	26	16.0%	20	12.6%	18
Arkansas	75.4%	88%	19%	18	16.7%	19	12.6%	18
Oklahoma	77.7%	80%	20%	17	16.0%	20	12.4%	20
Louisiana	70.2%	100%	17%	23	17.0%	17	11.9%	21
Alabama	73.1%	86%	18%	21	15.5%	22	11.3%	22
West Virginia	77.2%	68%	19%	18	12.9%	23	10.0%	23
Florida	73.5%	70%	18%	21	12.6%	25	9.3%	24
New Mexico	67.0%	75%	17%	23	12.8%	24	8.5%	25
South Carolina	69.7%	57%	19%	18	10.8%	27	7.5%	26
Mississippi	67.9%	100%	11%	27	11.0%	26	7.5%	26

Table 2: Funding and Student Characteristics in ACT-majority States

	% of Total Cohort at Benchmarks	Rank	Total Revenue Per Pupil 2010	Rank	Percent Free/Reduced Lunch	Rank	Percent White Students	Rank
Minnesota	22.8%	1	\$12,757	6	35.5%	3	75.0%	13
North Dakota	20.2%	2	\$13,273	3	33.8%	1	84.5%	2
Colorado	19.8%	3	\$10,586	17	38.4%	7	60.6%	19
Illinois	19.5%	4	\$13,124	4	46.2%	16	54.2%	22
Kansas	19.2%	5	\$11,566	10	45.7%	14	68.8%	16
Wisconsin	19.2%	5	\$12,775	5	37.1%	4	76.0%	11
Nebraska	19.2%	5	\$12,353	7	43.3%	12	73.8%	14
South Dakota	19.0%	8	\$10,437	18	37.6%	3	81.3%	7
Utah	18.2%	9	\$7,743	27	42.1%	10	79.1%	9
Missouri	16.5%	10	\$10,596	16	44.3%	13	75.7%	12
Michigan	16.4%	11	\$12,081	9	45.9%	15	71.1%	15
Iowa	16.1%	12	\$11,264	13	37.3%	5	82.2%	5
Ohio	15.9%	13	\$13,531	2	40.3%	9	78.1%	10
Wyoming	15.7%	14	\$19,510	1	35.2%	2	81.4%	6
Montana	14.9%	15	\$11,359	11	40.0%	8	83.1%	4
Idaho	13.8%	16	\$8,160	26	43.0%	11	80.4%	8
Kentucky	13.1%	17	\$10,238	19	54.9%	22	84.3%	3
Tennessee	12.6%	18	\$8,618	25	54.4%	19	68.2%	17
Arkansas	12.6%	18	\$10,663	15	59.7%	24	65.3%	18
Oklahoma	12.4%	20	\$8,840	24	58.8%	23	56.4%	21
Louisiana	11.9%	21	\$12,111	8	65.8%	25	48.5%	24
Alabama	11.3%	22	\$9,721	21	54.9%	21	58.7%	20
West Virginia	10.0%	23	\$11,269	12	53.0%	17	92.4%	1
Florida	9.3%	24	\$9,981	20	53.5%	18	45.9%	23
New Mexico	8.5%	25	\$9,384	22	66.6%	26	25.5%	27
South Carolina	7.5%	26	\$10,820	14	54.6%	20	53.7%	23
Mississippi	7.5%	26	\$9,061	23	70.7%	27	46.1%	25