

The Condition of College & Career Readiness

This report looks at the achievement of the ACT®-tested 2017 graduating class relative to college and career readiness. A total of 60% of students in the 2017 US graduating class took the ACT® test, compared to 64% last year, 54% in 2013, and 42% in 2007. The growing percentage of the nation's graduates taking the ACT over the past decade has enhanced the breadth and depth of the data pool, providing a comprehensive picture of the current graduating class in the context of college readiness.

As a research-based nonprofit organization, ACT is committed to providing information and solutions to support the following:

- **Holistic view of readiness.** The ACT report, *Broadening the Definition of College and Career Readiness: A Holistic Approach*, shows academic readiness is only one of multiple domains critical in determining an individual's readiness for success in college and career. Social and emotional learning skills (SEL) are also vital. Behavioral skills, cross-cutting capabilities, and navigational skills should be measured and addressed. Together, these elements provide a comprehensive picture of student readiness for success after high school.
- **Meaningful data for better decisions.** ACT is focused on providing better data to students, parents, schools, districts, and states so that all can make more informed decisions to improve educational outcomes. We accomplish this goal by taking a holistic view and using consistent and reliable historical information so that individuals and institutions have a better context to make critical decisions about the journey they have undertaken.

The Condition of College & Career Readiness 2017

Missouri Key Findings

Performance

- In the Missouri graduating class of 2017, 68,480 graduates took the ACT® test, compared to 49,217 in 2013.
- Missouri graduates of 2017 had an average Composite score of 20.4, compared to the national average of 21.0.
 - ~ Compared to the 2017 Missouri graduating class English average of 19.8, Missouri graduates in 2016 and 2013 had English averages of 19.7 and 21.4, respectively.
 - ~ Compared to the 2017 Missouri graduating class math average of 19.9, Missouri graduates in 2016 and 2013 had math averages of 19.8 and 21.0, respectively.
 - ~ Compared to the 2017 Missouri graduating class reading average of 20.8, Missouri graduates in 2016 and 2013 had reading averages of 20.6 and 21.9, respectively.
 - ~ Compared to the 2017 Missouri graduating class science average of 20.5, Missouri graduates in 2016 and 2013 had science averages of 20.4 and 21.6, respectively.
- In 2017, 23 percent of Missouri graduates met all four ACT College Readiness Benchmarks. This compares to 22 and 28 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 59 percent of Missouri graduates met the ACT English College Readiness Benchmark. This compares to 59 and 72 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 34 percent of Missouri graduates met the ACT Math College Readiness Benchmark. This compares to 35 and 45 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 43 percent of Missouri graduates met the ACT Reading College Readiness Benchmark. This compares to 40 and 49 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 34 percent of Missouri graduates met the ACT Science College Readiness Benchmark. This compares to 32 and 41 percent of 2016 and 2013 graduates, respectively.

STEM

- In 2017, 27,603 Missouri graduates (40 percent) indicated having an interest in STEM majors and/or careers.
- Compared to 16 percent of 2017 Missouri graduates meeting the ACT STEM College Readiness Benchmark, graduates in 2016 and 2013 had STEM Benchmark percentages of 16 and 20, respectively.

Career Readiness

- In 2017, 15,187 Missouri graduates (22 percent) were likely to attain the Gold ACT WorkKeys® National Career Readiness Certificate® or higher based upon ACT Composite score, compared to 538,392 (27 percent) nationally.
 - ~ The ACT Composite scores associated with a 50% chance of earning each ACT WorkKeys NCRC® level or higher are: 13 for Bronze, 17 for Silver, 25 for Gold, and 35 for Platinum. Based on those cut scores, students who earned an ACT Composite score of less than 13 would be classified as "Needs Improvement," 13 to 16 as "Bronze," 17 to 24 as "Silver," and 25 or above as "Gold or Higher." For comparison, individual student score reports classify those who scored 12 to 13, 14 to 17, and 18 and higher as making progress toward Bronze, Silver, and Gold certificates.
 - ~ ACT Work Ready Communities are strong and expanding in Missouri. 84 counties participate in an ACT Work Ready Community. recognition.

Impact

- Based on the actual test volume and ACT score distributions of 2016 ACT-tested Missouri high school graduates, ACT research estimates that an increase of 0.1 in state average ACT Composite score for the 2017 graduating class would result in:
 - ~ 141 more students enrolling in college.
 - ~ 169 more students persisting to year two.
 - ~ 137 fewer students needing remedial English.
 - ~ 261 fewer students needing remedial math.
 - ~ 192 more students persisting to year four.
 - ~ 209 more students earning a postsecondary degree within six years.

Behaviors that Impact Access and Opportunity

- In Missouri, 2017 graduates taking the ACT two or more times had an average Composite score of 22.8, compared to 18.0 for single-time testers.
- For Missouri's 2017 ACT-tested graduates, the top five schools to which scores were sent were Missouri State University, University of Missouri-Columbia, University of Central Missouri, University of Missouri-Kansas City, and Southeast Missouri State University.
 - ~ For Missouri's 2017 ACT-tested graduates, the top three out-of-state schools to which scores were sent were University of Kansas, University of Arkansas, and Kansas State University.
- Participating in EOS exposes students to numerous academic and scholarship opportunities that they might not have found on their own. ACT research shows that college enrollment rates increase for those who opt into EOS, regardless of academic achievement levels.
 - ~ Compared to 73 percent of 2017 graduates nationally, 68 percent of Missouri graduates opted into EOS.
 - ~ Compared to 85 percent of African American students nationally, 76 percent of Missouri African American 2017 graduates opted into EOS.
 - ~ Compared to 83 percent of Hispanic students nationally, 74 percent of Missouri Hispanic 2017 graduates opted into EOS.
 - ~ Compared to 69 percent of White students nationally, 68 percent of Missouri White 2017 graduates opted into EOS.
 - ~ Compared to 76 percent of Asian students nationally, 73 percent of Missouri Asian 2017 graduates opted into EOS.
 - ~ Compared to 76 percent of American Indian students nationally, 58 percent of Missouri American Indian 2017 graduates opted into EOS.
 - ~ The ACT "Get Your Name in the Game" initiative allows colleges and universities access to underserved students' names free of charge.
- ACT issued 13,896 ACT fee waivers to Missouri students who qualify. However, 4,016 students (29 percent) did not take advantage of this opportunity to test for free. This compares to 656,061 issued nationally, of which 181,092 (27.6 percent) did not take advantage. Fee waivers represent a great opportunity for students with socio-economic challenges to retest without incurring any fees.
 - ~ The two largest groups of students who received fee waivers were African-American and White students. They had a 67.41 percent and 73.96 percent use rate, respectively.

Pipeline

- In the Missouri graduating class of 2017, 11,150 (16 percent) had parents who did not attend college.
- In the Missouri graduating class of 2017, 10,556 (15 percent) aspired to attain a professional degree. They had an average Composite score of 23.4.
- In the Missouri graduating class of 2017, 7,559 (11 percent) aspired to attain a graduate degree. They had an average Composite score of 23.9.
- In the Missouri graduating class of 2017, 25,179 (37 percent) aspired to attain a bachelor's degree. They had an average Composite score of 20.7.
- In the Missouri graduating class of 2017, 3,574 (5 percent) aspired to attain an associate's degree. They had an average Composite score of 16.8.
- In order of prevalence, the five most commonly indicated college majors of interest for 2017 Missouri graduates were: Undecided; Nursing, Registered (BS/RN); Medicine (Pre-Medicine); Business Administration and Management, General; and Biology, General.
 - ~ In the Missouri graduating class of 2017, 7,007 (10 percent) indicated being undecided about their college major. They had an average Composite score of 21.8.
 - ~ In the Missouri graduating class of 2017, 3,358 (5 percent) indicated planning on majoring in education. They had an average Composite score of 20.6.

ACT Footprint

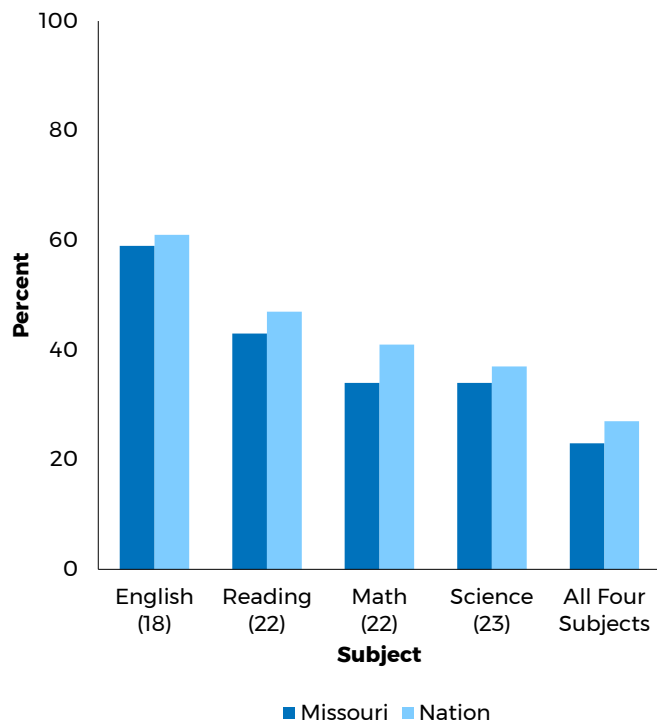
- Number of administrations:
 - ~ ACT Aspire® Summative: 3,656
 - ~ ACT Aspire Periodic: 10,044
 - ~ ACT Engage®: 1,939
 - ~ PreACT®: 22,946
 - ~ ACT WorkKeys: 51,085

Additional Points

- The Missouri ACT State Organization is a group of committed educators and community leaders from K-20 and the workforce. The group meets several times annually to plan an annual conference for a wide range of stakeholders in Missouri. This last year, it hosted their annual conference in St. Louis. It was a sold-out event that brought 200 individuals together to discuss and learn about relevant issues and solutions for Missourians.
- ACT hosts ACT College and Career Readiness Workshops across the state. Here, attendees learn of ACT updates on research as well as product and services. This year, workshops are scheduled in St. Louis, Columbia, Springfield, Cape Girardeau, Kansas City (2), St. Joseph, and Joplin.
- Some occupations that are growing in demand in Missouri include Physical Therapists and Physical Therapist Assistants, Occupational Therapists, Biochemists/Biophysicists, and Home Health Aides.

Missouri College and Career Readiness Attainment, Participation, and Opportunity

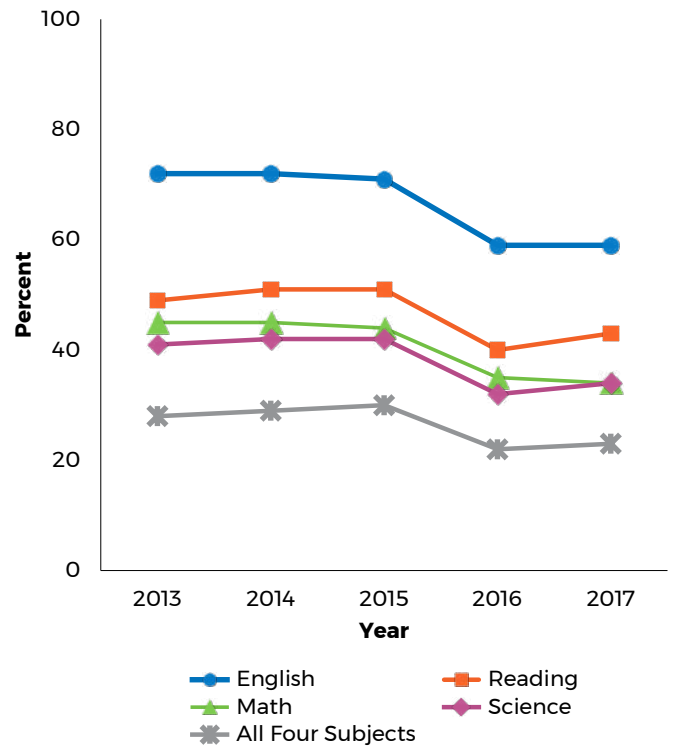
Percent of 2017 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks* by Subject



Data from graph above:

State / Nation	English (18)	Reading (22)	Math (22)	Science (23)	All Four
Missouri	59	43	34	34	23
Nation	61	47	41	37	27

Percent of 2013–2017 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks

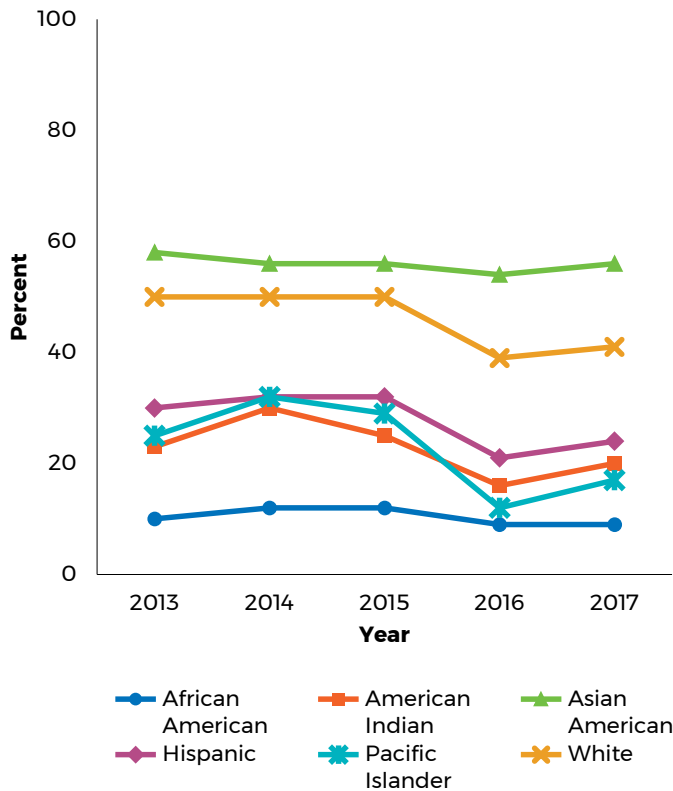


Data from graph above:

Subject	2013	2014	2015	2016	2017
English	72	72	71	59	59
Reading	49	51	51	40	43
Math	45	45	44	35	34
Science	41	42	42	32	34
All Four Subjects	28	29	30	22	23

* The ACT College Readiness Benchmarks are scores on the ACT subject area tests that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. Throughout this report, benchmark attainment corresponds with students meeting or exceeding score values in parentheses ().

Percent of 2013-2017 ACT-Tested High School Graduates Meeting Three or More ACT College Readiness Benchmarks by Race/Ethnicity*



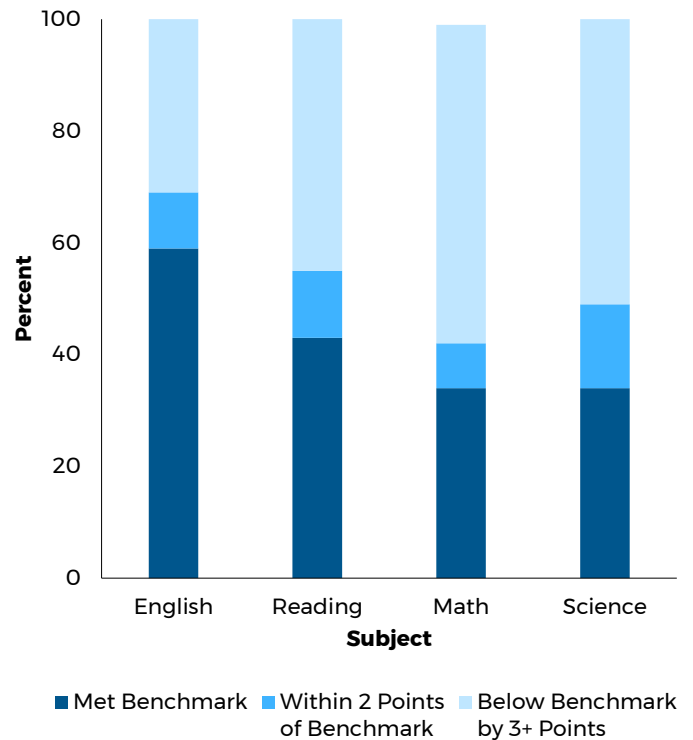
Data from graph above:

Race	2013	2014	2015	2016	2017
African American	10	12	12	9	9
American Indian	23	30	25	16	20
Asian American	58	56	56	54	56
Hispanic	30	32	32	21	24
Pacific Islander	25	32	29	12	17
White	50	50	50	39	41

* Percentages for groups with insufficient counts will be missing.

Percent of 2017 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

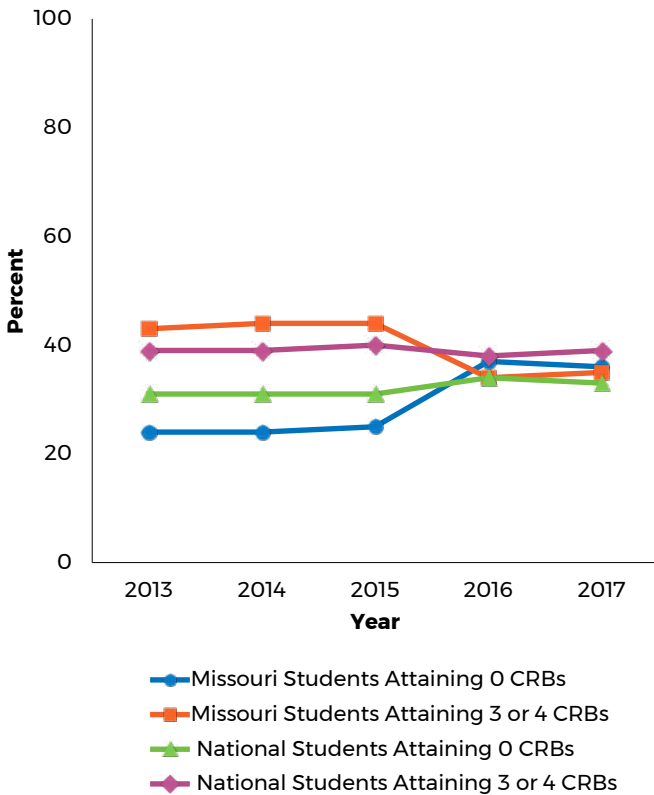
Note: Percents in this graph may not sum to 100% due to rounding. Values less than 0.5% will not appear.



Data from graph above:

Attainment	English	Reading	Math	Science
Met Benchmark	59	43	34	34
Within 2 Points of Benchmark	10	12	8	15
Below Benchmark by 3+ Points	31	46	57	51

Trends in Percent of ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks (CRBs) Attained

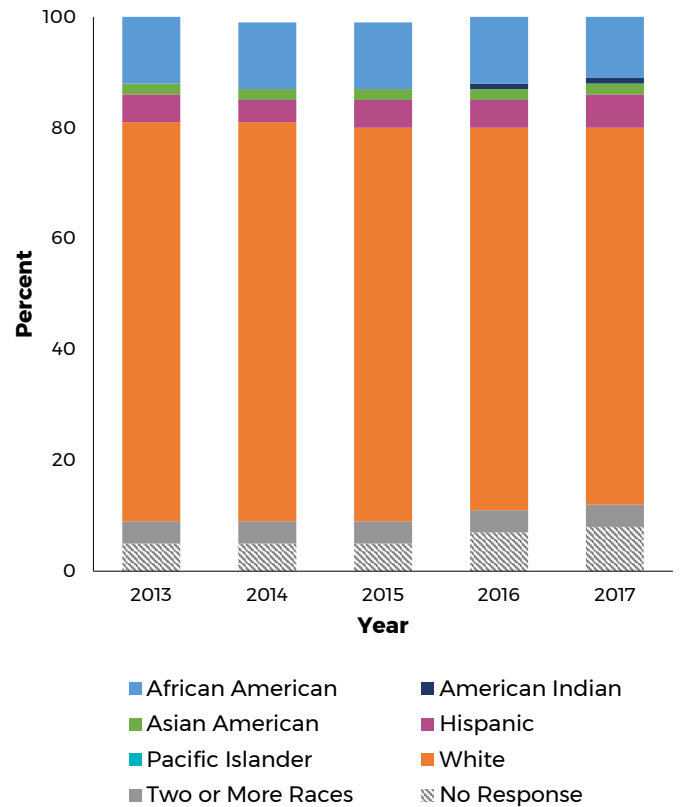


Data from graph above:

Attainment	2013	2014	2015	2016	2017
Missouri Students Attaining 0 CRBs	24	24	25	37	36
Missouri Students Attaining 3 or 4 CRBs	43	44	44	34	35
National Students Attaining 0 CRBs	31	31	31	34	33
National Students Attaining 3 or 4 CRBs	39	39	40	38	39

Percent of 2013–2017 ACT-Tested High School Graduates by Race/Ethnicity

Note: Percents in this graph may not sum to 100% due to rounding. Values less than 0.5% will not appear.



Data from graph above:

Race	2013	2014	2015	2016	2017
African American	12	12	12	12	12
American Indian	0	0	0	1	1
Asian American	2	2	2	2	2
Hispanic	5	4	5	5	6
Pacific Islander	0	0	0	0	0
White	72	72	71	69	68
Two or More Races	4	4	4	4	4
No Response	5	5	5	7	8

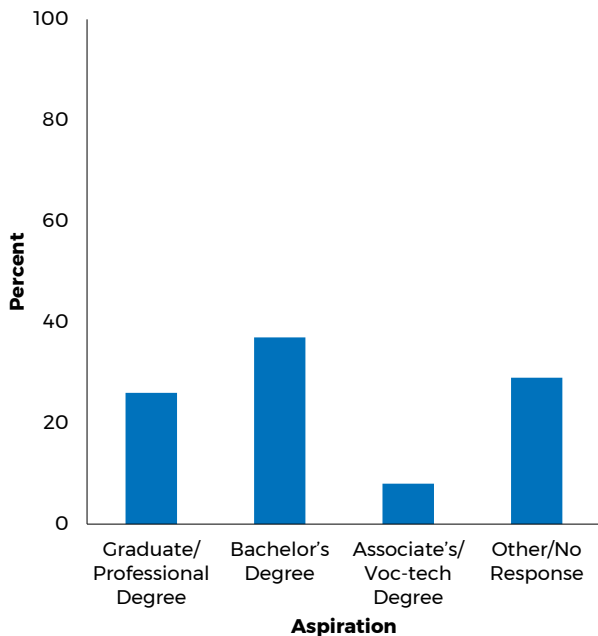
Missouri: Between 2013 and 2017, the number of students taking the ACT in Missouri increased by 19,263 students (39 percent).

Student Data Trends: 2013-2017, State vs. Nation

Outcome	Cohort	2013	2014	2015	2016	2017
Percent Tested	Missouri	74	76	77	100	100
	Nation	54	57	59	64	60
N Tested	Missouri	49,217	48,865	49,640	68,446	68,480
	Nation	1,799,243	1,845,787	1,924,436	2,090,342	2,030,038
Average English Score	Missouri	21.4	21.6	21.4	19.7	19.8
	Nation	20.2	20.3	20.4	20.1	20.3
Average Reading Score	Missouri	21.9	22.3	22.2	20.6	20.8
	Nation	21.1	21.3	21.4	21.3	21.4
Average Math Score	Missouri	21.0	21.1	21.0	19.8	19.9
	Nation	20.9	20.9	20.8	20.6	20.7
Average Science Score	Missouri	21.6	21.7	21.7	20.4	20.5
	Nation	20.7	20.8	20.9	20.8	21.0
Average Composite Score	Missouri	21.6	21.8	21.7	20.2	20.4
	Nation	20.9	21.0	21.0	20.8	21.0

Percent of 2017 ACT-Tested High School Graduates by Educational Aspirations

Note: Percents in this graph may not sum to 100% due to rounding.



There is good news in that 71% of Missouri's 2017 ACT-tested graduates aspired to postsecondary education. Interestingly enough, 75% of Missouri's 2016 ACT-tested graduating class aspired to enroll in postsecondary education, compared to 55% who actually did enroll. If we fully closed the aspirational gap, an additional 13,274 of the 2016 ACT-tested graduates from Missouri would have enrolled in postsecondary education.

Data from graph

Aspiration	Percent
Graduate / Professional Degree	26
Bachelor's Degree	37
Associate's / Voc-tech Degree	8
Other / No Response	29



Missouri State Exemplar 2017 ACT College and Career Readiness Campaign

Jamal Burns

Gateway STEM High School, St. Louis Public Schools

“It is my hope that the college experience is one of a transformative nature.”

Jamal may have honed his leadership abilities as debate team captain in high school, but much of his determination comes from his responsibilities working to help support his family and helping his mother with his younger siblings.

A first-generation student, Jamal looks forward to attending college to find his role in the world and eventually give back to his family, school, and community, perhaps through a career in politics.

Information and products for further review

	Knowledge & Skills	Social & Emotional
Assessments	ACT Aspire®	ACT Tessera™
	PreACT®	ACT Engage®
	The ACT® Test	
	ACT WorkKeys®	
Research	Condition of College & Career Readiness	A Rosetta Stone for Noncognitive Skills
	ACT® National Curriculum Survey®	
	The Forgotten Middle	Tessera Comprehensive Theory of Action
	Rigor at Risk	
	ACT Holistic Framework™	
Resources	PLDs Learning Description Review	Tessera Teacher Playbook
	Curriculum Review Worksheets	
	OpenEd Learning Resources	
	Test Prep	
Training	Professional Learning Sessions	
	College & Career Readiness Workshops	
	Holistic Framework Webinars	

We are more than just the ACT test. ACT products and services encompass a variety of research- and assessment-based solutions.

As research leaders, we continue to innovate education and workforce solutions to help guide individuals to education and career success.

Find out more at www.act.org.

Key ACT Research

As students navigate their education and career journeys, it is critical for them to be ready for college and career success. College and career readiness is supported by the ACT Holistic Framework, a research-based, multidimensional model for understanding the essential knowledge and skills needed for success, and the solutions that can meet students' navigation needs. Visit act.org/condition2017 to access key reports listed below.

- Serving students' navigation needs from kindergarten to career requires a holistic approach:
 - ~ *Beyond Academics: A Holistic Framework for Enhancing Education and Workplace Success*
 - ~ *The Importance of Behavioral Skills and Navigation Factors for Education and Workforce Success*
- The ACT Holistic Framework is supported by prolific research:
 - ~ Core Academic Skills:
 - 2017 State and National Condition Reports
 - *Profiles of STEM Students: Persisters, Joiners, Changers, and Departers*
 - *ACT Composite Score by Parental Education Level, 2012-2016*
 - *Comparisons of Student Achievement Levels by District Performance and Poverty*
 - ~ Behavioral Skills (also called Social and Emotional Learning):
 - *The Development of Behavioral Performance Level Descriptors*
 - ~ Cross-Cutting Capabilities:
 - *ACT National Curriculum Survey 2016*
 - ~ Student journeys continue into postsecondary education and careers:
 - *Higher Education Research Digest*
 - *Predicted Attainment of ACT National Career Readiness Certificates for the 2016 ACT-tested High School Cohort*

Recommendations

- 1. Use a holistic assessment model for school accountability that measures student readiness for college and career across multiple domains.** While it is essential to measure students' academic achievement in assessing college and career readiness, it is not enough. Social and emotional learning skills are important and measurable, and they can be impacted. Assessment models should take into account core academic skills, behavioral skills, cross-cutting capabilities, and education and career navigation skills to provide an integrated picture of college and work readiness.
- 2. Make special efforts to ensure that underrepresented students have equal access and opportunity to pursue postsecondary education.** According to ACT research, most underrepresented students want to continue their education after high school, but they face many barriers. Ensuring they have access to the same rigorous core curriculum as others is just one step. Many also lack the resources, information, and familial and peer support they need to prepare for success after high school. Special efforts must be made to level the playing field for underrepresented students so they have equal opportunity to succeed.
- 3. Increase emphasis on STEM readiness initiatives, measures, and programs.** With technology advancing rapidly, the importance of STEM readiness is only increasing. The threat of robotic and computer-assisted technologies eliminating jobs is growing while the remaining and emerging jobs will likely require higher-level skills. ACT data continue to show that many graduates are not ready. Without improvement in STEM readiness, far too many will be ill-prepared for the future workforce.
- 4. Focus on fewer, higher, and clearer learning standards in K-12 schools.** Far too many students continue to graduate from high school without all of the core skills they will need to ably succeed at the next level. Many will struggle, and many will likely fail to realize their aspirations. The push toward raising the bar on learning standards and focusing on the essential skills necessary for success must continue.
- 5. Begin assessing learning and implementing intervention strategies early.** Early assessment and intervention are critical to improving educational outcomes. If students are not on track for college and career readiness by the time they reach middle school, it may be too late. Assessing learning and implementing intervention strategies to help students get on the right path for college and career readiness must begin in elementary school.