

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

Montana Key Findings

Performance

- In the Montana graduating class of 2017, 9,938 graduates took the ACT® test, compared to 6,631 in 2013.
 - ~ In 2017, there were 582 American Indian graduates from Montana who took the ACT (6 percent). This compares to 411 (4 percent) and 363 (5 percent) for 2016 and 2013 graduating classes, respectively.
- Montana graduates of 2017 had an average Composite score of 20.3, compared to the national average of 21.0.
 - ~ With the exception of the African American demographic, all other race/ethnicity group ACT Composite score averages either stayed the same or increased.
- In 2017, 22 percent of Montana graduates met all four ACT College Readiness Benchmarks. This compares to 22 and 28 percent of 2016 and 2013 graduates, respectively.
- In 2017, 36 percent of Montana graduates met zero ACT College Readiness Benchmarks. This compares to 37 and 26 percent of 2016 and 2013 graduates, respectively.
 - ~ There was a 1 percent decrease in both English and mathematics, a 3 percent increase in reading and a 1 percent increase in science.

STEM

- In 2017, 2,332 Montana graduates (23 percent) indicated having an interest in STEM majors and/or careers.
- This is significantly below the national average of 49 percent, and likely a result of Montana's PII restrictions.
- Overall, Montana ACT mathematic and science scores have remained at an average of 20.2 and 20.5, respectively, for the past two years.
 - ~ In Montana, 2017 graduates taking physics had an average science score of 23.3, compared to the average science score of 20.1 for students not taking physics.
 - ~ In Montana, 2017 graduates taking three or more years of math had an average math score of 21.7 compared to the average math score of 16.5 for students taking less than three years of math.

Career Readiness

- In 2017, 1,967 Montana graduates (20 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.

Impact

- Based on the actual test volume and ACT score distributions of 2016 ACT-tested Montana 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:
 - ~ 21 more students enrolling in college.
 - ~ 25 more students persisting to year two.
 - ~ 22 fewer students needing remedial English.
 - ~ 38 fewer students needing remedial math.
 - ~ 28 more students persisting to year four.
 - ~ 31 more students earning a postsecondary degree within six years.

Behaviors that Impact Access and Opportunity

- In Montana, 2017 graduates taking the ACT two or more times had an average Composite score of 23.2, compared to 19.5 for single-time testers.
- For Montana's 2017 ACT-tested graduates, the top five schools to which scores were sent were Montana State University-Bozeman, University of Montana, Montana State University-Billings, Montana Tech of the University of Montana, and Carroll College.
 - ~ For Montana's 2017 ACT-tested graduates, the top three out-of-state schools to which scores were sent were University of Washington, University of Oregon, and Boise State University.
- Compared to 73 percent of 2017 graduates nationally, 34 percent of Montana graduates opted into EOS.
 - ~ Compared to 76 percent of American Indian students nationally, 44 percent of Montana American Indian 2017 graduates opted into EOS.
 - ~ Compared to 69 percent of White students nationally, 34 percent of Montana White 2017 graduates opted into EOS.
 - ~ Compared to 83 percent of Hispanic students nationally, 33 percent of Montana Hispanic 2017 graduates opted into EOS.
 - ~ Compared to 76 percent of Asian students nationally, 41 percent of Montana Asian 2017 graduates opted into EOS.
 - ~ Compared to 77 percent of Pacific Islander students nationally, 28 percent of Montana Pacific Islander 2017 graduates opted into EOS.
 - ~ By opting in, students allow colleges and universities to communicate with them about various academic majors, scholarships, and student life opportunities.
 - ~ The ACT "Get Your Name in the Game" initiative allows colleges and universities access to underserved students' names free of charge.
- ACT issued 497 ACT fee waivers to qualified Montana students. However, 164 students (33 percent) did not take advantage of this opportunity to test for free. This compares to 656,061 issued nationally, of which 181,092 (28 percent) did not take advantage. This represents a great opportunity for high schools within the state to increase the socio-economic diversity of their students tested. Note: This is the number of fee waivers issued for the state, not specific to this graduating class.
 - ~ ACT provides students fee waivers to provide more access and opportunity for students

Pipeline

- In the Montana graduating class of 2017, 627 (6 percent) had parents who did not attend college.
 - ~ In the Montana graduating class of 2017, 715 (7 percent) aspired to attain a professional degree. They had an average Composite score of 23.7.
 - ~ In the Montana graduating class of 2017, 511 (5 percent) aspired to attain a graduate degree. They had an average Composite score of 23.3.
 - ~ In the Montana graduating class of 2017, 2,180 (22 percent) aspired to attain a bachelor's degree. They had an average Composite score of 21.1.
 - ~ In the Montana graduating class of 2017, 311 (3 percent) aspired to attain an associate's degree. They had an average Composite score of 17.6.
- In order of prevalence, the five most commonly indicated college majors of interest for 2017 Montana graduates were: Undecided; Nursing, Registered (BS/RN); Medicine (Pre-Medicine); Business Administration and Management, General; and Mechanical Engineering.
 - ~ In the Montana graduating class of 2017, 605 (6 percent) indicated being undecided about their college major. They had an average Composite score of 21.8.
 - ~ In the Montana graduating class of 2017, 250 (3 percent) indicated planning on majoring in education. They had an average Composite score of 20.4.

ACT Footprint

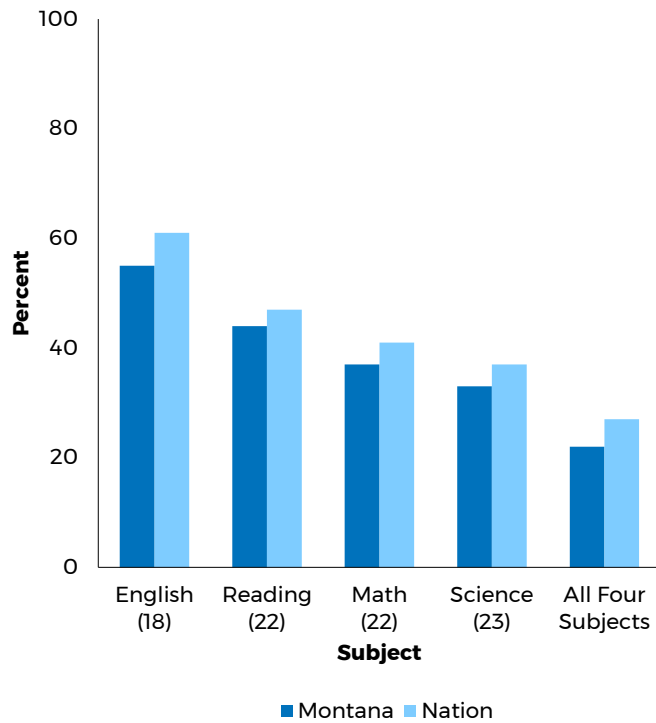
- Number of administrations:
 - ~ ACT Aspire® Summative: 2,256
 - ~ ACT Aspire Periodic: 225
 - ~ ACT Engage®: 268
 - ~ PreACT®: 1,391
 - ~ ACT WorkKeys: 176

Additional Points

- As you know, the PII restrictions Montana has implemented have changed the data significantly. The unintended consequence of such policy results in students being limited in opportunity and access, schools and districts impacted in evaluating curriculum and closing gaps, while the state does not have a true comparison in their longitudinal data other than test scores. The ACT test is about more than a score. When all aspects of the pre-registration are completed, it provides all parties the opportunity to see the whole student.
- This year, the Montana Office of Public Instruction offered free ACT Online Prep™ to all students in the junior class, and more than 6,000 students actively used this tool.
- 2017 College and Career Readiness Campaign Award Recipients: Student Readiness - Emma Clinton, Red Lodge High School; College and Career Transition (High School) - Capital High School; Workplace Success (Employer) - Boeing, Helena

Montana College and Career Readiness Attainment, Participation, and Opportunity

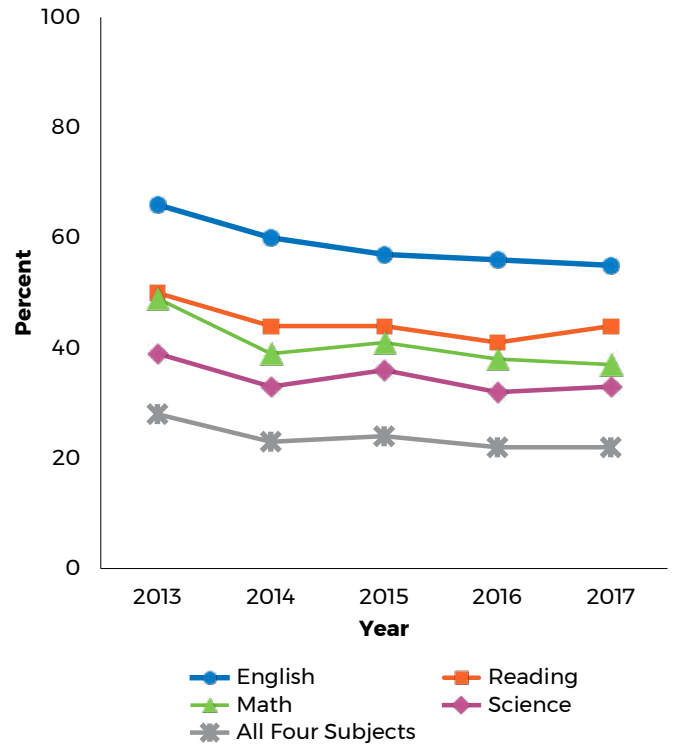
Percent of 2017 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks* by Subject



Data from graph above:

State / Nation	English (18)	Reading (22)	Math (22)	Science (23)	All Four
Montana	55	44	37	33	22
Nation	61	47	41	37	27

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

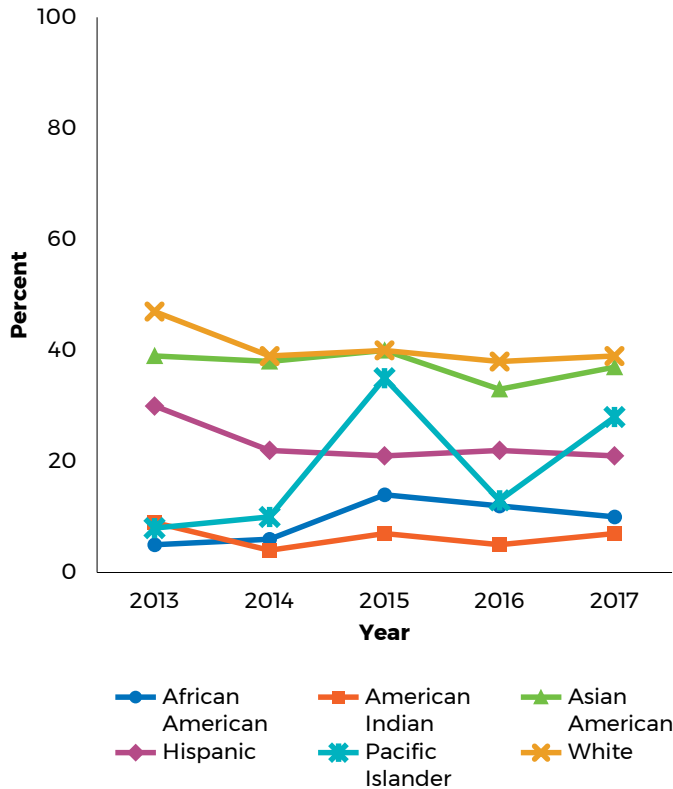


Data from graph above:

Subject	2013	2014	2015	2016	2017
English	66	60	57	56	55
Reading	50	44	44	41	44
Math	49	39	41	38	37
Science	39	33	36	32	33
All Four Subjects	28	23	24	22	22

* 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*



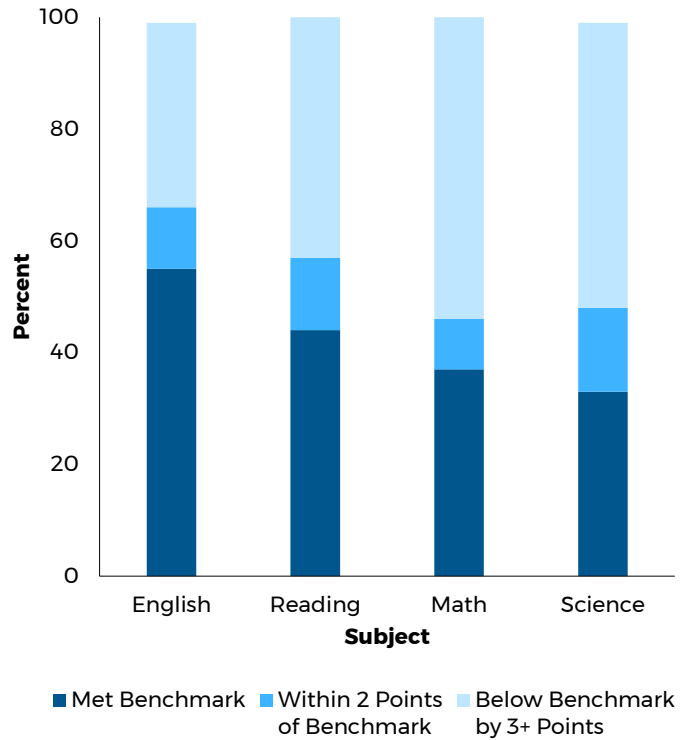
Data from graph above:

Race	2013	2014	2015	2016	2017
African American	5	6	14	12	10
American Indian	9	4	7	5	7
Asian American	39	38	40	33	37
Hispanic	30	22	21	22	21
Pacific Islander	8	10	35	13	28
White	47	39	40	38	39

* 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

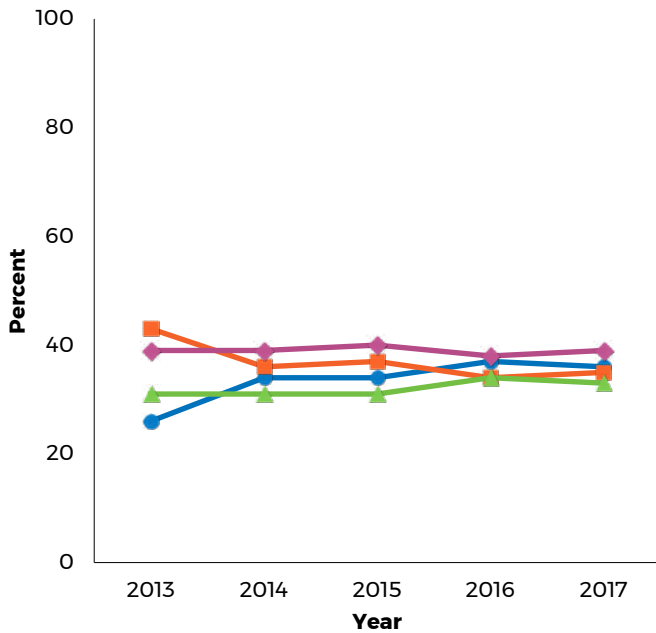
Note: Percents in this graph may not sum to 100% due to rounding. Values less than 0.5% will not appear.



Data from graph above:

Attainment	English	Reading	Math	Science
Met Benchmark	55	44	37	33
Within 2 Points of Benchmark	11	13	9	15
Below Benchmark by 3+ Points	33	43	54	51

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



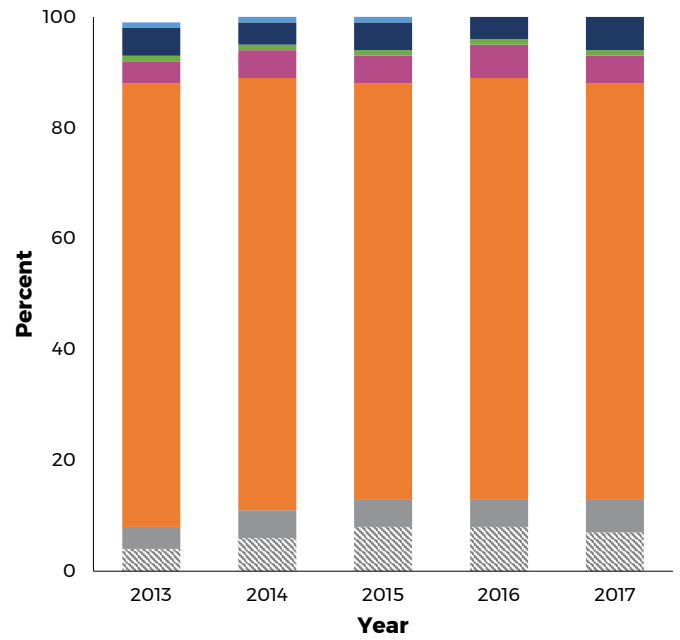
- Montana Students Attaining 0 CRBs
- Montana Students Attaining 3 or 4 CRBs
- ▲— National Students Attaining 0 CRBs
- ◆— National Students Attaining 3 or 4 CRBs

Data from graph above:

Attainment	2013	2014	2015	2016	2017
Montana Students Attaining 0 CRBs	26	34	34	37	36
Montana Students Attaining 3 or 4 CRBs	43	36	37	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.



- African American
- American Indian
- Asian American
- Hispanic
- Pacific Islander
- White
- Two or More Races
- No Response

Data from graph above:

Race	2013	2014	2015	2016	2017
African American	1	1	1	1	1
American Indian	5	4	5	4	6
Asian American	1	1	1	1	1
Hispanic	4	5	5	6	5
Pacific Islander	0	0	0	0	0
White	80	78	75	76	75
Two or More Races	4	5	5	5	6
No Response	4	6	8	8	7

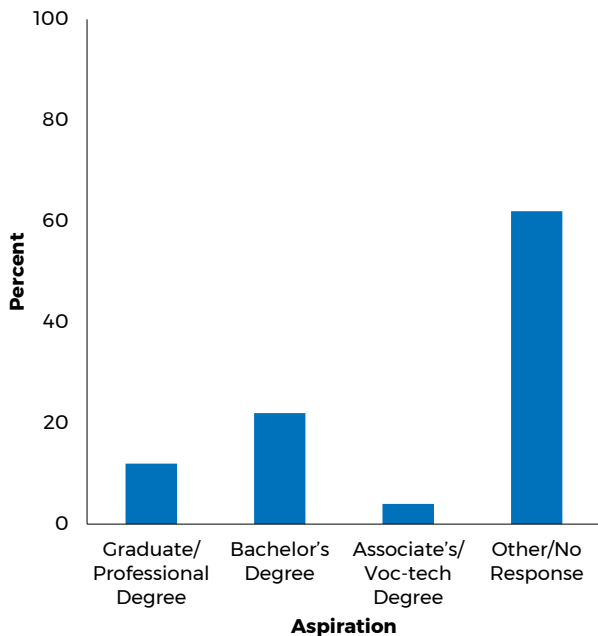
Montana: Between 2013 and 2017, the number of students taking the ACT in Montana increased by 3,307 students (50 percent).

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

Outcome	Cohort	2013	2014	2015	2016	2017
Percent Tested	Montana	72	100	100	100	100
	Nation	54	57	59	64	60
N Tested	Montana	6,631	9,611	9,489	9,568	9,938
	Nation	1,799,243	1,845,787	1,924,436	2,090,342	2,030,038
Average English Score	Montana	20.2	19.3	19.1	19.0	19.0
	Nation	20.2	20.3	20.4	20.1	20.3
Average Reading Score	Montana	21.9	21.1	21.0	20.8	21.0
	Nation	21.1	21.3	21.4	21.3	21.4
Average Math Score	Montana	21.4	20.5	20.4	20.2	20.2
	Nation	20.9	20.9	20.8	20.6	20.7
Average Science Score	Montana	21.2	20.4	20.5	20.5	20.5
	Nation	20.7	20.8	20.9	20.8	21.0
Average Composite Score	Montana	21.3	20.5	20.4	20.3	20.3
	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 38% of Montana's 2017 ACT-tested graduates aspired to postsecondary education. Interestingly enough, 82% of Montana's 2016 ACT-tested graduating class aspired to enroll in postsecondary education, compared to 47% who actually did enroll. If we fully closed the aspirational gap, an additional 3,375 of the 2016 ACT-tested graduates from Montana would have enrolled in postsecondary education.

Data from graph

Aspiration	Percent
Graduate / Professional Degree	12
Bachelor's Degree	22
Associate's / Voc-tech Degree	4
Other / No Response	62



Montana State Exemplar 2017 ACT College and Career Readiness Campaign

Emma Clinton

Red Lodge High School, Carbon County School District

“In five years, I would be happy to see myself successfully graduated from college with a degree in a field of work that both interests me and makes me feel as though I am making the world a better place.”

During her senior year, Emma took on the challenge of convincing her community that an 80-foot wind turbine at her school would be an environmental benefit rather than an eyesore. She managed to win over 90 percent of her small town.

This passion for the environment leads Emma to consider a major in environmental studies as she begins her collegiate career. She hopes to study abroad and work to use green technologies to improve conditions in third-world countries.

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.