

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

Pennsylvania Key Findings

Performance

- In the Pennsylvania graduating class of 2017, 30,987 graduates took the ACT® test, compared to 26,171 in 2013.
- Pennsylvania graduates of 2017 had an average Composite score of 23.7, compared to the national average of 21.0.
 - ~ Compared to the 2017 Pennsylvania graduating class Composite average of 23.7, Pennsylvania graduates in 2016 and 2013 had Composite averages of 23.1 and 22.7, respectively.
- In 2017, 45 percent of Pennsylvania graduates met all four ACT College Readiness Benchmarks. This compares to 42 and 38 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 80 percent of Pennsylvania graduates met the ACT English College Readiness Benchmark. This compares to 77 and 77 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 62 percent of Pennsylvania graduates met the ACT Math College Readiness Benchmark. This compares to 61 and 61 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 66 percent of Pennsylvania graduates met the ACT Reading College Readiness Benchmark. This compares to 61 and 57 percent of 2016 and 2013 graduates, respectively.
 - ~ In 2017, 55 percent of Pennsylvania graduates met the ACT Science College Readiness Benchmark. This compares to 52 and 47 percent of 2016 and 2013 graduates, respectively.

STEM

- In 2017, 16,924 Pennsylvania graduates (55 percent) indicated having an interest in STEM majors and/or careers.
- Compared to a 2017 Pennsylvania graduating class STEM average of 23.6, graduates in 2016 and 2013 had STEM averages of 23.2 and 22.8, respectively.
- Compared to 36 percent of 2017 Pennsylvania graduates meeting the ACT STEM College Readiness Benchmark, graduates in 2016 and 2013 had STEM Benchmark percentages of 33 and 30, respectively.

Career Readiness

- In 2017, 13,629 Pennsylvania graduates (44 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 Pennsylvania 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:
 - ~ 56 more students enrolling in college.
 - ~ 68 more students persisting to year two.
 - ~ 41 fewer students needing remedial English.
 - ~ 77 fewer students needing remedial math.
 - ~ 81 more students persisting to year four.
 - ~ 93 more students earning a postsecondary degree within six years.

Behaviors that Impact Access and Opportunity

- In Pennsylvania, 2017 graduates taking the ACT two or more times had an average Composite score of 25.1, compared to 22.8 for single-time testers.
- Of Pennsylvania's 2017 graduating class, there were 2,747 (9 percent) African American students taking the ACT. This compares to 256,756 (13 percent) nationally.
- Of Pennsylvania's 2017 graduating class, there were 49 (0 percent) American Indian students taking the ACT. This compares to 16,135 (1 percent) nationally.
- Of Pennsylvania's 2017 graduating class, there were 21,971 (71 percent) White students taking the ACT. This compares to 1,062,439 (52 percent) nationally.
- Of Pennsylvania's 2017 graduating class, there were 1,469 (5 percent) Hispanic students taking the ACT. This compares to 347,906 (17 percent) nationally.
- Of Pennsylvania's 2017 graduating class, there were 1,782 (6 percent) Asian students taking the ACT. This compares to 96,097 (5 percent) nationally.
- For Pennsylvania's 2017 ACT-tested graduates, the top five schools to which scores were sent were Penn State-University Park Campus, University of Pittsburgh, Temple University, West Chester University of Pennsylvania, and Drexel University.
 - ~ For Pennsylvania's 2017 ACT-tested graduates, the top three out-of-state schools to which scores were sent were University of Delaware, West Virginia University, and The Ohio State University.
- Compared to 73 percent of 2017 graduates nationally, 64 percent of Pennsylvania graduates opted into EOS.
 - ~ Compared to 85 percent of African American students nationally, 80 percent of Pennsylvania African American 2017 graduates opted into EOS.
 - ~ Compared to 76 percent of American Indian students nationally, 76 percent of Pennsylvania American Indian 2017 graduates opted into EOS.
 - ~ Compared to 69 percent of White students nationally, 62 percent of Pennsylvania White 2017 graduates opted into EOS.
- ACT issued 8,054 ACT fee waivers to qualified Pennsylvania students. However, 2,542 students (32 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.

Pipeline

- In the Pennsylvania graduating class of 2017, 2,132 (7 percent) had parents who did not attend college.
- In the Pennsylvania graduating class of 2017, 7,457 (24 percent) aspired to attain a professional degree. They had an average Composite score of 25.6.
- In the Pennsylvania graduating class of 2017, 7,474 (24 percent) aspired to attain a graduate degree. They had an average Composite score of 25.2.
- In the Pennsylvania graduating class of 2017, 12,224 (39 percent) aspired to attain a bachelor's degree. They had an average Composite score of 22.3.
- In the Pennsylvania graduating class of 2017, 227 (1 percent) aspired to attain an associate's degree. They had an average Composite score of 17.7.
- In order of prevalence, the five most commonly indicated college majors of interest for 2017 Pennsylvania graduates were: Undecided; Medicine (Pre-Medicine); Nursing, Registered (BS/RN); Biology, General; and Business Administration and Management, General.
 - ~ In the Pennsylvania graduating class of 2017, 5,575 (18 percent) indicated being undecided about their college major. They had an average Composite score of 23.2.
 - ~ In the Pennsylvania graduating class of 2017, 1,237 (4 percent) indicated planning on majoring in education. They had an average Composite score of 21.3.

ACT Footprint

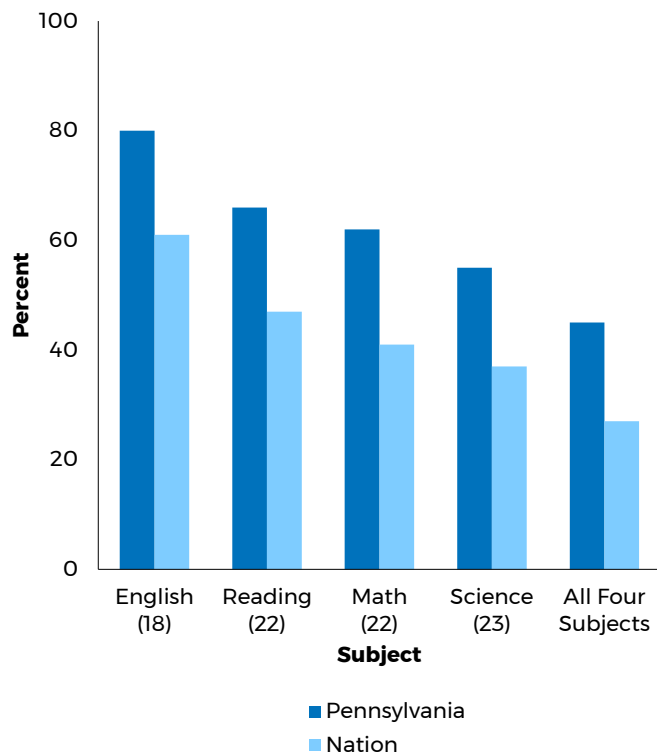
- Number of administrations:
 - ~ ACT Aspire® Summative: 13,714
 - ~ ACT Aspire Periodic: 8,475
 - ~ ACT Engage®: 1,776
 - ~ PreACT®: 3,765
 - ~ ACT WorkKeys: 11,740

Additional Points

- The Pennsylvania Department of Education has used a traditional definition of college and career readiness. Currently, the state is moving toward a more holistic school evaluation tool that is about more than scores on academic assessments. The new model is focusing on a multidimensional dimension of readiness.
 - ~ The ACT Holistic Framework is a model for college and career readiness that can provide a framework that assists students and adults in navigating potential barriers at key transition points throughout the K-Career continuum. This framework has been empirically tested and includes knowledge and skills related to success in education and in the workplace. This framework includes skills in at least four domains: Core Academic Skills, Cross-Cutting Capabilities, Behavioral Skills, and Education and Career Navigation Skills.
- According to the US Department of Labor, the top five emerging professions in Pennsylvania are: Interpreters and Translators, Occupational Therapy Assistants, Genetic Counselors, Physical Therapist Assistants, and Nurse Practitioners.

Pennsylvania College and Career Readiness Attainment, Participation, and Opportunity

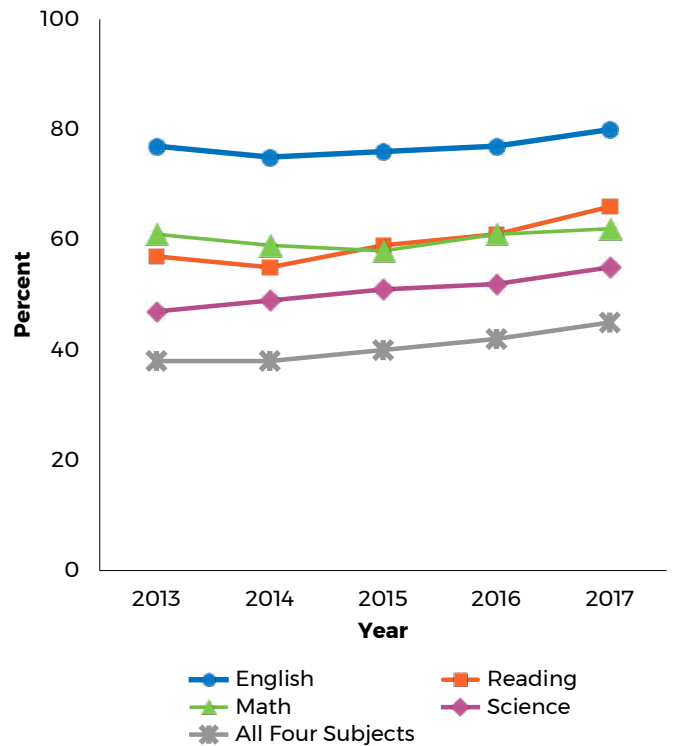
Percent of 2017 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks* by Subject



Data from graph above:

State / Nation	English (18)	Reading (22)	Math (22)	Science (23)	All Four
Pennsylvania	80	66	62	55	45
Nation	61	47	41	37	27

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

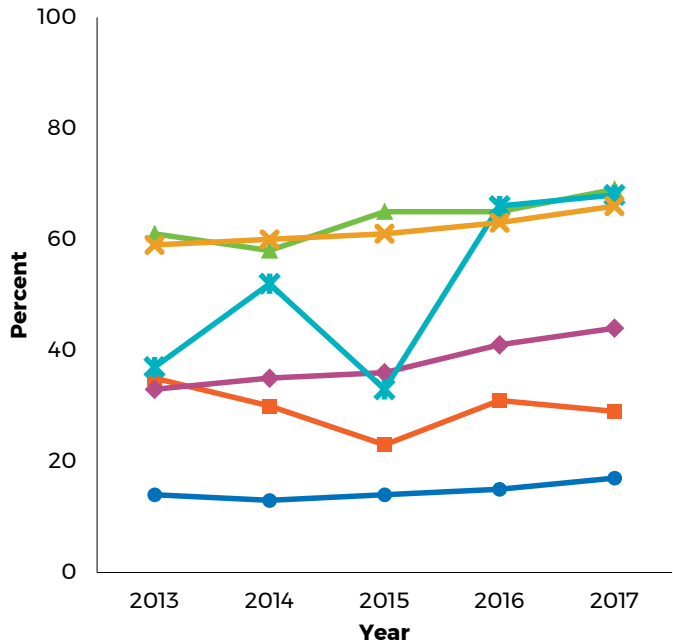


Data from graph above:

Subject	2013	2014	2015	2016	2017
English	77	75	76	77	80
Reading	57	55	59	61	66
Math	61	59	58	61	62
Science	47	49	51	52	55
All Four Subjects	38	38	40	42	45

* 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*



● African American
■ American Indian
▲ Asian American
◆ Hispanic
✕ Pacific Islander
★ White

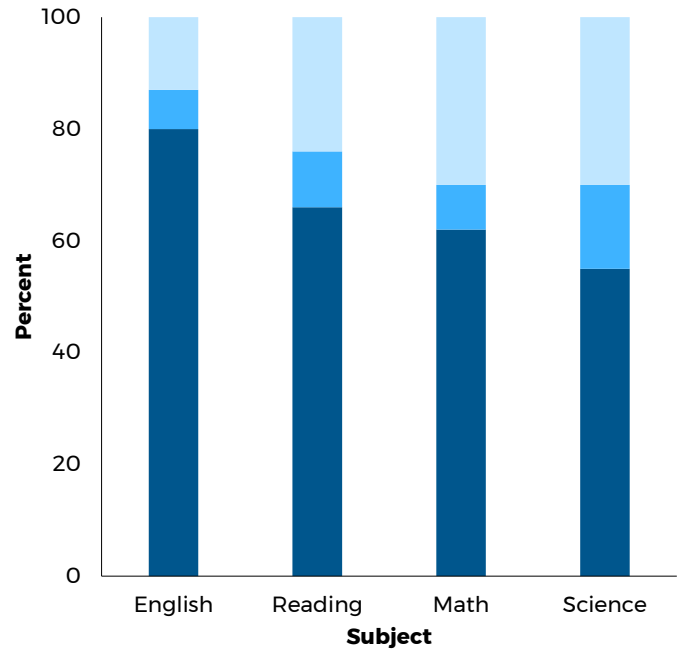
Data from graph above:

Race	2013	2014	2015	2016	2017
African American	14	13	14	15	17
American Indian	35	30	23	31	29
Asian American	61	58	65	65	69
Hispanic	33	35	36	41	44
Pacific Islander	37	52	33	66	68
White	59	60	61	63	66

* 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.

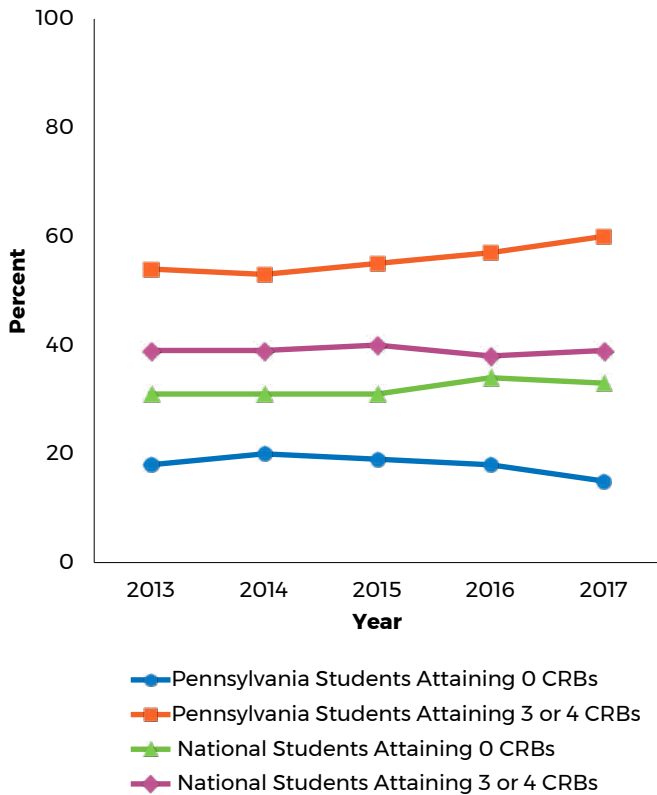


■ Met Benchmark
■ Within 2 Points of Benchmark
■ Below Benchmark by 3+ Points

Data from graph above:

Attainment	English	Reading	Math	Science
Met Benchmark	80	66	62	55
Within 2 Points of Benchmark	7	10	8	15
Below Benchmark by 3+ Points	13	25	30	31

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

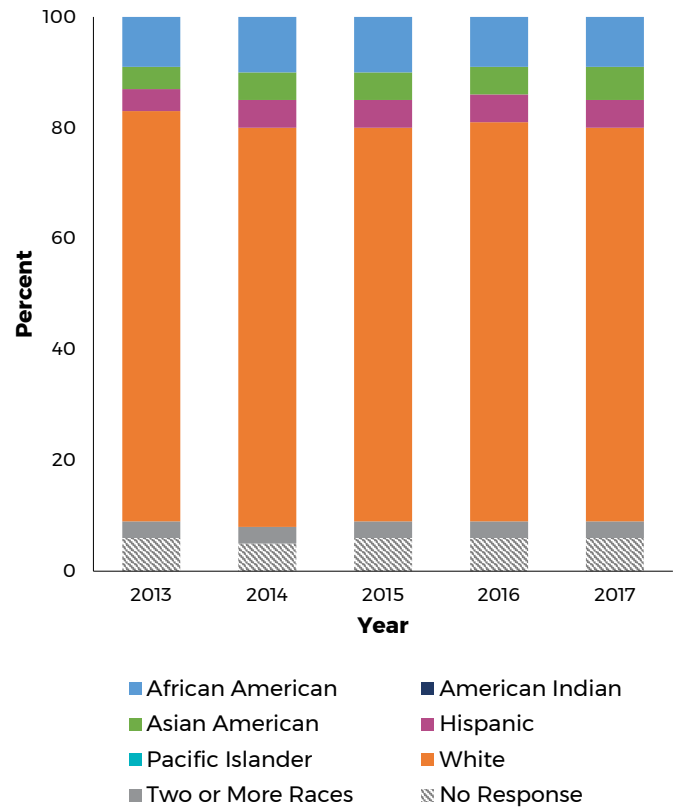


Data from graph above:

Attainment	2013	2014	2015	2016	2017
Pennsylvania Students Attaining 0 CRBs	18	20	19	18	15
Pennsylvania Students Attaining 3 or 4 CRBs	54	53	55	57	60
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	9	10	10	9	9
American Indian	0	0	0	0	0
Asian American	4	5	5	5	6
Hispanic	4	5	5	5	5
Pacific Islander	0	0	0	0	0
White	74	72	71	72	71
Two or More Races	3	3	3	3	3
No Response	6	5	6	6	6

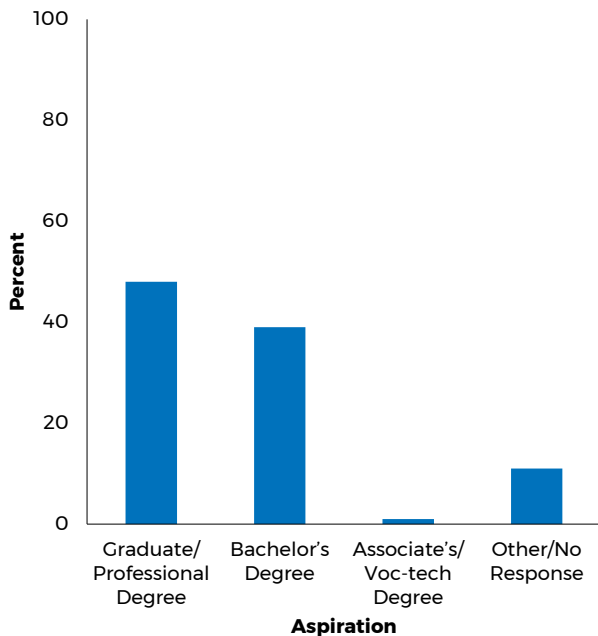
Pennsylvania: Between 2013 and 2017, the number of students taking the ACT in Pennsylvania increased by 4,816 students (18 percent).

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

Outcome	Cohort	2013	2014	2015	2016	2017
Percent Tested	Pennsylvania	18	19	22	23	23
	Nation	54	57	59	64	60
N Tested	Pennsylvania	26,171	27,136	29,776	31,342	30,987
	Nation	1,799,243	1,845,787	1,924,436	2,090,342	2,030,038
Average English Score	Pennsylvania	22.2	22.1	22.5	22.6	23.4
	Nation	20.2	20.3	20.4	20.1	20.3
Average Reading Score	Pennsylvania	23.0	23.0	23.2	23.6	24.2
	Nation	21.1	21.3	21.4	21.3	21.4
Average Math Score	Pennsylvania	23.0	22.8	22.8	23.0	23.4
	Nation	20.9	20.9	20.8	20.6	20.7
Average Science Score	Pennsylvania	22.2	22.2	22.5	22.8	23.3
	Nation	20.7	20.8	20.9	20.8	21.0
Average Composite Score	Pennsylvania	22.7	22.7	22.9	23.1	23.7
	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 89% of Pennsylvania's 2017 ACT-tested graduates aspired to postsecondary education. Interestingly enough, 88% of Pennsylvania's 2016 ACT-tested graduating class aspired to enroll in postsecondary education, compared to 84% who actually did enroll. If we fully closed the aspirational gap, an additional 1,000 of the 2016 ACT-tested graduates from Pennsylvania would have enrolled in postsecondary education.

Data from graph

Aspiration	Percent
Graduate / Professional Degree	48
Bachelor's Degree	39
Associate's / Voc-tech Degree	1
Other / No Response	11



Pennsylvania State Exemplar 2017 ACT College and Career Readiness Campaign

Grace Baek

Northwest Pennsylvania Collegiate Academy, Erie School District

“Despite having parents who never went to college, I don’t let my background limit what I am capable of doing. Although medical school may seem like such a reach for a first generation college student like me, I believe that my personal drive for success will help me reach my goal.”

Grace’s parents did not receive any postsecondary education, and her father passed away when she was in middle school. However, she did not allow these challenging circumstances to slow down her education. She attended an exclusive summer program at Carnegie Mellon University before her senior year of high school.

Grace plans to earn her undergraduate degree in biology before heading to medical school, where she will train as a surgeon and continue volunteering her time in local hospitals.

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.