

ACT Data and Research: Taking Action to Assist our Students on Their College and Career Readiness Journeys

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Agenda

- **What's New, Updates**
- **ACT Enhancements**
- **ACT College & Career Readiness – Curriculum & Instruction**
- **Break**
- **ACT MO 2024 Grad Profile Report, Research & Data Tools**
- **Networking & Break**
- **College Preparedness**
- **Questions & Wrap Up**

What's New & Updates

- SMCAA Sponsored AIM:
 - Valley Park (Feb 10-11, 2025 – Math)
 - Meramec Valley R-III (Feb 20-21, 2025 – Science)
 - Fox C-6 (Mar 3-4, 2025 – English)
 - KIPP STL (March 6-7, 2025 – Reading)
- National ACT Deep Dive events - <https://site.act.org/act-ccrw-2024-webinars#monitoring-growth>
- WorkKeys Funding opportunity – schools that have already received funding, what is your plan?
- PreACT Updates: A+, Online testing, pre/post testing (Secure option)
- District Testing window SY26



A dynamic event where leaders from **K-12, higher education, and workforce** sectors collaborate to tackle today's most critical challenges, sharing actionable insights and innovative strategies to shape the future of education and the workforce

- **Inspirational Keynote Speakers**
- **Over 50 Impactful Sessions**
- **Insights that will Empower You to Lead Change**
- **Network with Leaders Across Sectors**
- **Join over 500 others who've signed up for registration alerts—secure your spot today!**

Join us July 15-17, 2025 in Nashville!

Scan the QR Code for more information on the ACT Summit and registration



Early Bird rate deadline is April 1, 2025!

The ACT Enhancements

Enhancements to the ACT Test

**Expand
National
Online**



**Advance Our
Quality
Assessment
Practices**



**Provide
More Time
Per Item**



**& Reduce
Total Testing
Time**

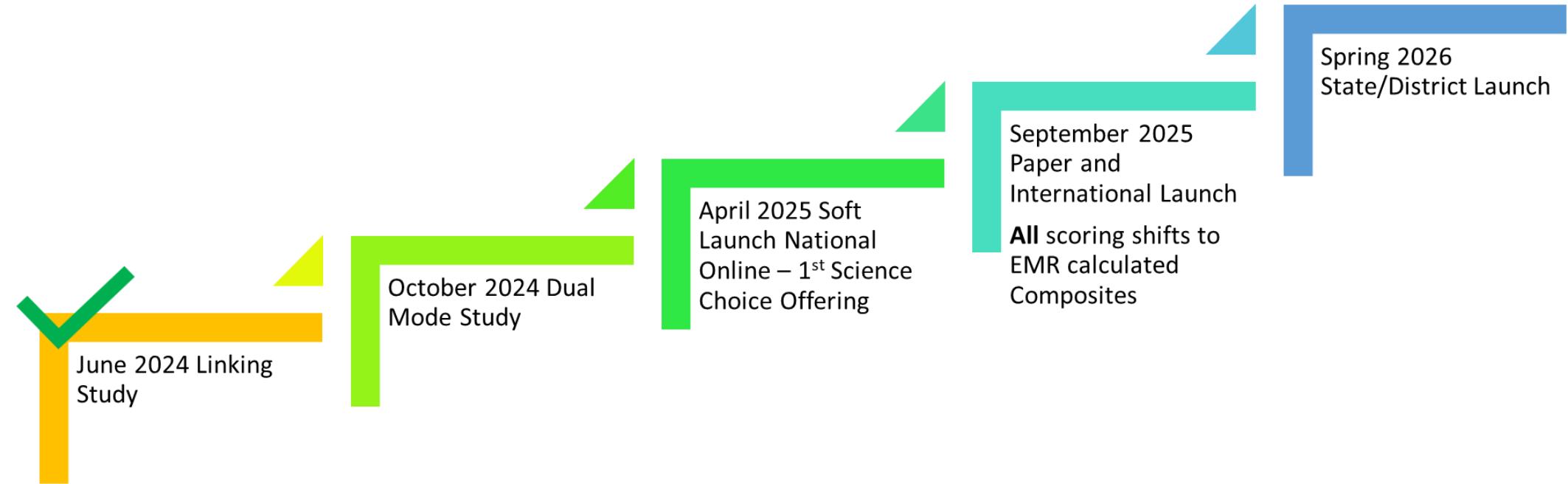


**Respond to
Learner &
Higher Ed
Feedback**



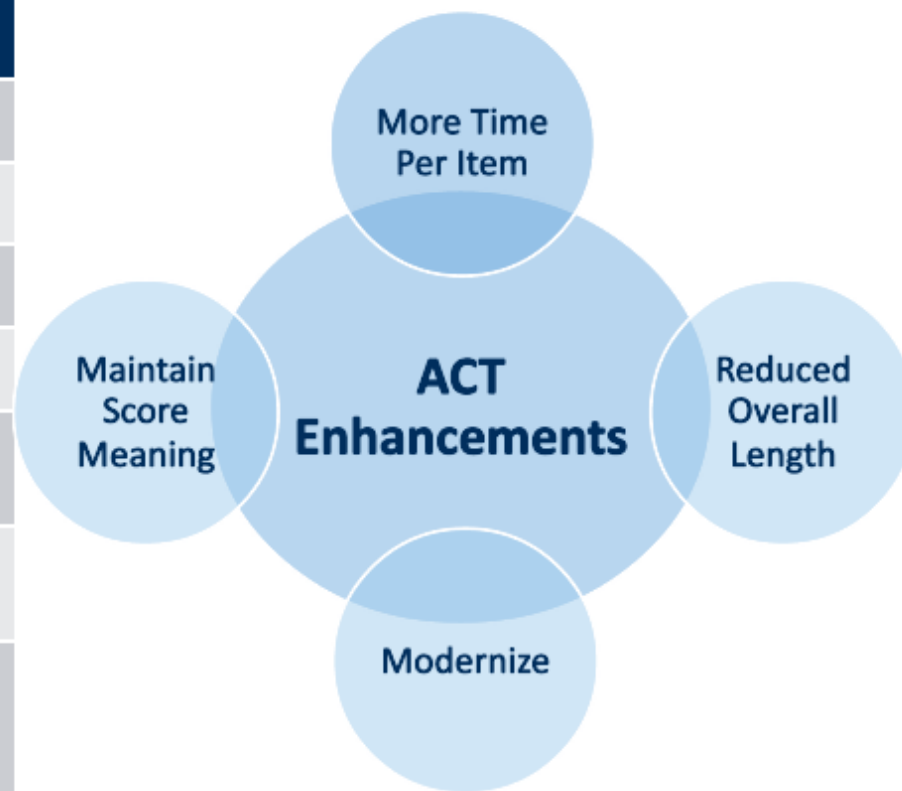
**Provide More
Stakeholder
Choice**

Timeline for the transition to the Enhanced ACT



Current vs. Proposed Future State

Current State		
English	75 items	45 min
Reading	40 items	35 min
Math	60 items	60 min
Science	40 items	35 min
5 th Test [^] (Field Test)	12-28 items	20 min
Writing	1 item	40 mins
	National + Writing S/D + writing	195 min 235 min 175 min 215 min



Proposed Future State		
English	50 items (10 FT)	35 min
Reading	36 items (9 FT)	40 min
Math	45 items (4 FT)	50 min
Science	40 items (6 FT)	40 mins
Writing	1 item	40 min
	National & S/D +Science +writing	125 min 165 min 205 min

- Total count includes Field Test (FT) items
- Current studies may result in adjustment to total minutes

[^] State/District students do not receive 5th test

Key Enhancements

Change	Description
More time per item	<ul style="list-style-type: none">• Average of ~10 sec per item (varies among subjects).
Testing time reduced	<ul style="list-style-type: none">• Composite score received after 125 minutes, rather than 195 or 175 minutes.• For students taking all four current core subjects, ~30 minutes shorter for national testing.• For students taking all four current core subjects, ~10 minutes shorter for state/district testing.
Fewer items per section	<ul style="list-style-type: none">• ~44 items shorter in total (across English, math and reading).• Minimized impact to reporting categories.
Eliminate the 5th Test for National test takers	<ul style="list-style-type: none">• Aligns testing experience for state/district and national testers – creating a more inclusive research sample when testing new items (prior EFTs were only in National).• Test new items in real-world circumstances, not in isolated section.• More field test items each year.• Over time, will enable faster score reporting.
Learners can choose to take with or without science section (as writing is today)	<ul style="list-style-type: none">• English, math, and reading sections taken by all students will generate a Composite score.• When a student chooses to take science, it will appear as a section score and be used to calculate the STEM score (science + math) but will not be used to calculate the Composite (same as writing today).• States/districts can choose to offer science and/or writing.

Key Enhancements: Estimated Time Per Item

Subject	Current (seconds/item)	Enhanced (seconds/item)	Est. Increase in seconds/item
English	36	42	6 (17%)
Math	60	67	7 (11%)
Reading	53	67	14 (27%)
Science	53	60	7.5 (15%)

Important Note: The enhanced ACT blueprint remains a linear assessment and is not a computer adaptive test. A student's max score potential is not routed into "tracks" based on their performance on initial section questions.

Key Enhancements

Sections	Changes to Items, Passages, and Other Specifications
English	<ul style="list-style-type: none">• Adding stems.• Reducing the length of some English passages.• Adding an argumentative essay and items.• Rebalancing reporting categories.
Math	<ul style="list-style-type: none">• Reducing the number of foils in math from five to four.• Reducing the number of items aligned to Integrating Essential Skills reporting category.• Reducing the number of items aligned to advanced topics (higher grade level items).• Reducing the number of items with context (require longer time to read).• Rebalancing reporting categories.
Reading	<ul style="list-style-type: none">• Reducing the length of some reading passages.• Rebalancing reporting categories.
Science	<ul style="list-style-type: none">• Ensuring at least one passage per form addresses an engineering and design topic.• Increasing the number of items requiring scientific background knowledge (DCI).• Rebalancing reporting categories.
Writing	<ul style="list-style-type: none">• No change.

New Composite Score: Starting Fall 2025

ACT { English
Math
Reading → COMPOSITE

ACT + Science → STEM SCORE
+ Writing → ELA SCORE

Starting in fall 2025, the ACT Composite will be English, math, and reading. Students can still take all five subjects previously offered on the ACT test, but they will have more flexibility to choose their own test experience tailored to their education needs.

Students who choose to take the science section will receive a STEM score, and students who choose to take the writing section will receive an ELA score.

What Does The Research Say?

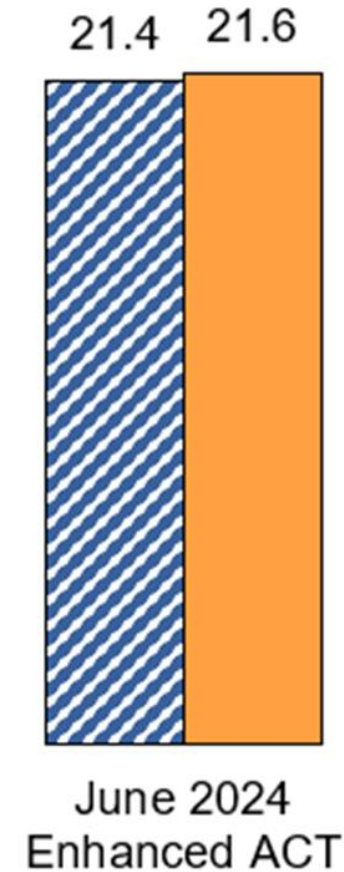


ACT[®]

Research Update

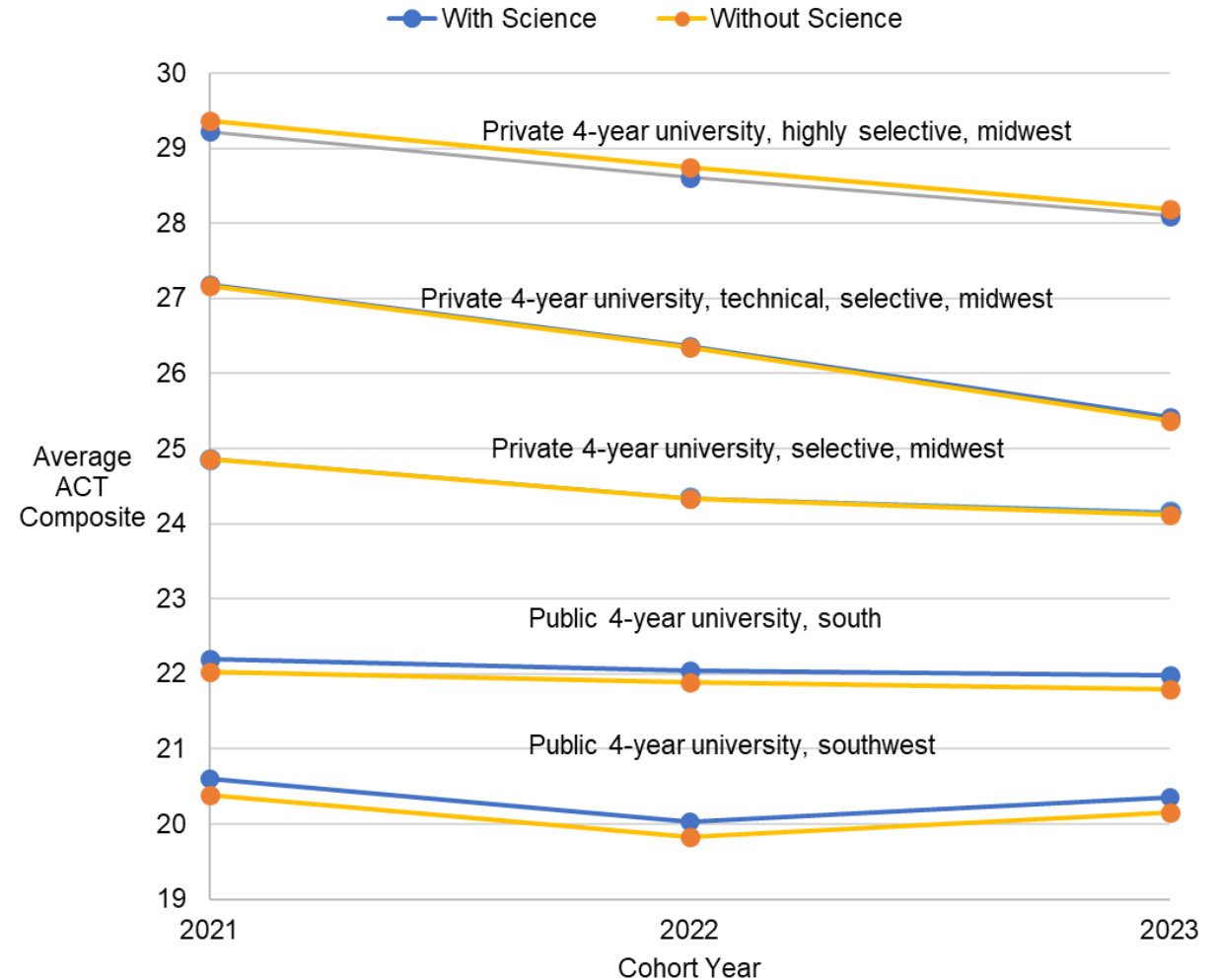
- June linking study has reinforced the alignment of the new blueprint to ACT score predictability, validity, and rigor.
- Initial research and simulations show little impact of English, math and reading calculated Composite to aggregate score distribution as compared to historical Composite score calculations that included science.

Without Science With Science



What does higher education say?

- The typical difference in the EMRS versus EMR composite score was +/- **0.1** score point
- June study data also shows that EMRS and EMR Composite scores have the same normative interpretation.



Key Questions

A young child with dark hair, wearing a black and white striped long-sleeved shirt, is raising their right hand in a classroom setting. The background is slightly blurred, showing a window and colorful posters on the wall. Another child's arm in a red shirt is visible on the right side of the frame.

ACT[®]

Key Questions

Will my institution need to change our ACT score criteria for admission, scholarships, etc.?

A: No. The research indicates consistent score distributions between historical English, math, reading, and science Composite scores, and the new English, math, and reading only calculation.

Additionally, we have reviewed prior cycle admission decisions and related ACT test scores for several different types of institutions and found little to no change in admission volumes when applying the EMR calculated Composites to previous admit pools.

ACT offers to collaborate with any institution that wishes to conduct an analysis of their use of ACT Composite scores in admission and scholarship criteria and review the application of the EMR only Composite scores to your institutional practices/policies

Key Questions

Will students be able to leverage the science choice to “game” their Composite score?

A: No. All Composite scores from all ACT programs (National, International, State & District, paper, online) will move to the new EMR calculated Composite score starting September 2025. This provides students and higher education with a consistent change over to the new calculation for all tests from that point forward.

Allowing students to choose to take the ACT with or without science does not impact the Composite score distributions across the population of applicants.

If a student elects to take the science section, we will provide their science section score and STEM score on all reports; this includes sending those scores to institutions of higher education and other programs that have used these scores in the past.

Key Questions

Will historical EMR and new EMRS Composites co-exist for a period of time?

A: Yes. When we soft launch the enhanced ACT for National Online testing in April, June and July 2025, those students will be reported using an EMR Composite (this will begin the choice for students to test with or without science). There will still be paper National, State & District, and International ACT test events (through the summer of 2025) that will have an EMRS calculated Composite from concurrent test events.

Additionally, we will not be retroactively recalculating student Composite scores for students who tested prior to the Composite score conversion.

Since ACT science has shown that the Composite scores calculated using EMR and EMRS are comparable, and ACT research scientists will continue to validate this through the changeover period, colleges and universities can continue to use the Composite for their required purposes (admissions, scholarship eligibility, placement, etc.).

Key Questions

Is there a cost difference to the student to take the ACT with or without science?

A: Final pricing will be set prior to the opening of registration for the April administration window. Our intention is to provide a “core” version of the ACT containing English, math and reading that is less expensive than today’s four section ACT. ACT remains committed to our fee waiver programs which will continue to apply.

Key Questions

When will practice materials be available?

A: ACT has released timed and untimed practice sections in December aligned to the new blueprint. These practice tests are now in the platform students will use on test day, with all the appropriate tools and formatting.

You can find those practice tests here:

<https://www.act.org/content/act/en/products-and-services/the-act/test-changes/online-testing/sample-questions.html>

(Scroll to the bottom of the page to find the Full-Length Practice test section.)

In addition, we are making an addendum to the 2024-2025 Preparing for the ACT guide that highlights the different experiences students will encounter if they take the National Online administration in April, June and July.

Core Takeaways



The enhanced ACT blueprint focuses on reducing testing time while providing additional time for students to evaluate and respond to each item, embedding field test items for a more representative and larger sample, and continuous improvement of assessment best practices.



Starting in April 2025 students will be able to choose to take the ACT with or without science. All Composite scores will move to a simplified English, math and reading based calculation starting in September 2025.



ACT has provided online testing since 2015 for State & District testing, and since 2018 for international students. We launched online testing for National testing in February 2024 and will continue to expand online testing as a ***choice***, but not ***requirement*** for students.

ACTIVITY #1 (5 min)

Go to the ACT Enhancements website, sign up for updates (if you'd like), browse the content.

Check out the new Sample Practice Questions link - [Sample Questions - ACT Online Testing | The ACT Test](#)

ACT College & Career Readiness

CONNECTED ASSESSMENTS for College and Career Readiness



ACT College Readiness Benchmarks

Section	Scores*	First-Year College Course
English	18	English Composition
Math	22	College Algebra
Reading	22	Social Sciences
Science	23	Biology
ELA	20	English Composition and Social Sciences
STEM	26	Calculus, Chemistry, Biology, Physics, and Engineering

*The ACT College Readiness Benchmarks are the ACT scores that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75-80% chance of obtaining a C or higher in corresponding credit-bearing courses.

[ACT College Readiness Benchmarks](#)

Standards-Based Performance Expectations

ACT[®] College and Career Readiness Benchmarks[™]

SUBJECT	THE ACT TEST
English	18
Math	22
Reading	22
Science	23
ELA	20
STEM	26

Table 2. ACT Cutoff Score Guide for Placement in First-Year College Courses

Course Type	ACT Test	Score Needed for 50% Chance of B or Higher
English Courses		
Standard Composition	English	18
Advanced Composition	English	19
Mathematics Courses		
College Algebra	Mathematics	22
Pre-Calculus	Mathematics	24
Trigonometry	Mathematics	24
Calculus	Mathematics	27
Social Science Courses		
American History	Reading	23
Other History	Reading	23
Psychology	Reading	22
Sociology	Reading	21
Political Science	Reading	22
Natural Science Courses		
Biology	Science	23
Chemistry	Science	26

Scores associated with post-secondary success in credit-bearing courses

ACT College and Career Readiness Standards

- Communicate learning goals and expectations.
- Relate test scores to skills needed in high school and beyond.
- Understand the increasing complexity of skills needed across score ranges in English, mathematics, reading, science, and writing.

ACT College and Career Readiness Standards

ACT College & Career Readiness Standards ▶ ENGLISH		ACT
ACT College & Career Readiness Standards ▶ MATHEMATICS		ACT
ACT College & Career Readiness Standards ▶ READING		ACT
ACT College & Career Readiness Standards ▶ SCIENCE		ACT
ACT College & Career Readiness Standards ▶ WRITING		ACT
These Standards describe what students who score in specific score ranges on the writing section of the ACT® college readiness assessment are likely to know and be able to do:		
SCORE RANGE	Ideas and Analysis (IAA)	
5-6	IAA 201. Understanding the task and writing with purpose A score in this range indicates that the writer is able to: <ul style="list-style-type: none">→ Generate a thesis that is unclear or not entirely related to the given issue.→ Respond weakly to other perspectives on the issue. IAA 202. Analyzing critical elements of an issue and differing perspectives on it A score in this range indicates that the writer is able to: <ul style="list-style-type: none">→ Provide analysis that is incomplete or largely missing.	Score below 7 does not permit useful generalizations about students' writing abilities.
5-6	IAA 301. Understanding the task and writing with purpose A score in this range indicates that the writer is able to: <ul style="list-style-type: none">→ Generate a somewhat clear thesis that establishes a perspective on a contemporary issue.→ Respond to other perspectives on the issue. IAA 302. Analyzing critical elements of an issue and differing perspectives on it A score in this range indicates that the writer is able to: <ul style="list-style-type: none">→ Establish a limited or tangential context for analysis.→ Provide analysis that is complete or somewhat unclear.	
7-8	IAA 401. Understanding the task and writing with purpose A score in this range indicates that the writer is able to: <ul style="list-style-type: none">→ Generate a clear thesis that establishes a perspective on a contemporary issue.→ Engage with other perspectives on the issue. IAA 402. Analyzing critical elements of an issue and differing perspectives on it A score in this range indicates that the writer is able to: <ul style="list-style-type: none">→ Establish and employ a relevant context for analysis.→ Recognize implications, complexities and tensions, and/or underlying values and assumptions.	
9-10	IAA 501. Understanding the task and writing with purpose A score in this range indicates that the writer is able to: <ul style="list-style-type: none">→ Generate a precise thesis that establishes a perspective on a contemporary	

Subject	Grade Level / Season	In Need of Intervention	Close to Target	On Target
English	8, fall	1–7	8–9 (8–10)	10–30 (11–30)
	8, spring	1–7	8–10	11–30
	9, fall	1–8	9–11	12–30
	9, spring	1–9	10–12	13–30
	10, fall	1–10	11–13	14–35
	10, spring	1–11	12–14	15–35
	11, fall	1–12	13–15	16–35
Math	8, fall	1–13 (1–12)	14–15 (13–14)	16–30 (15–30)
	8, spring	1–14 (1–13)	15–16 (14–15)	17–30 (16–30)
	9, fall	1–14	15–16	17–30
	9, spring	1–15	16–17	18–30
	10, fall	1–16	17–18	19–35
	10, spring	1–16	17–18	19–35
	11, fall	1–17	18–19	20–35
Reading	8, fall	1–12 (1–11)	13–15 (12–14)	16–30 (15–30)
	8, spring	1–13 (1–12)	14–16 (13–15)	17–30 (16–30)
	9, fall	1–14 (1–13)	15–17 (14–16)	18–30 (17–30)
	9, spring	1–15 (1–14)	16–18 (15–17)	19–30 (18–30)
	10, fall	1–16 (1–15)	17–19 (16–18)	20–35 (19–35)
	10, spring	1–17 (1–16)	18–20 (17–19)	21–35 (20–35)
	11, fall	1–18 (1–17)	19–21 (18–20)	22–35 (21–35)
Science	8, fall	1–13	14–16	17–30
	8, spring	1–14	15–17	18–30
	9, fall	1–15	16–18 (16–17)	19–30 (18–30)
	9, spring	1–16 (1–15)	17–18 (16–18)	19–30
	10, fall	1–17 (1–16)	18–19 (17–19)	20–35
	10, spring	1–18 (1–17)	19–20 (18–19)	21–35 (20–35)
	11, fall	1–19 (1–17)	20–21 (18–20)	22–35 (21–35)
STEM	8, fall	1–16	17–18	19–30
	8, spring	1–17	18–19	20–30
	9, fall	1–18	19–20	21–30
	9, spring	1–19	20–21	22–30
	10, fall	1–20	21–22	23–35
	10, spring	1–20 (1–21)	21–22 (22–23)	23–35 (24–35)
	11, fall	1–21	22–23	24–35

Note: Previous score range provided in parentheses when different than updated score range.

Updates to the PreACT Assessments Readiness Levels

- The readiness levels were updated in spring 2024 to reflect the latest growth trends for students who completed high school from 2020 through 2024.

[PreACT Readiness Levels Research](#)

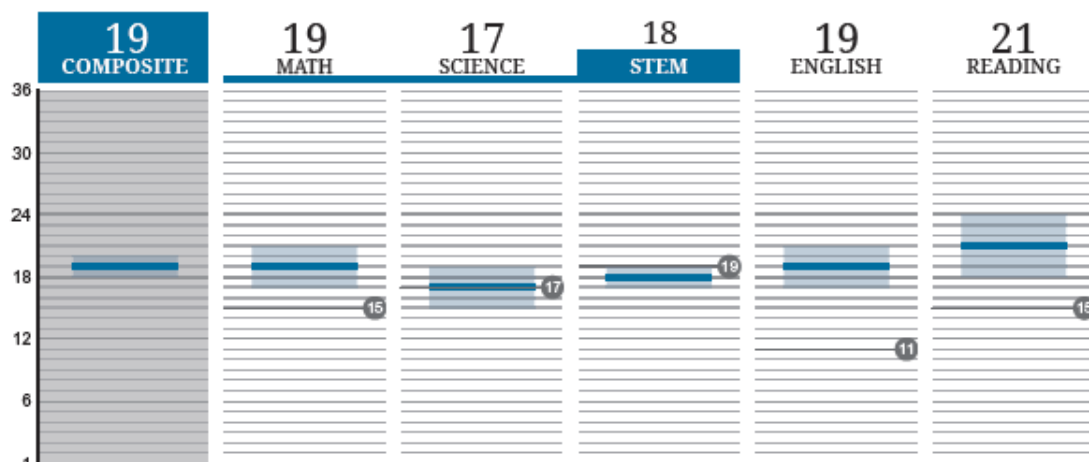


The ACT: MSIP6 Success Ready Categories

How can we know sooner? PreACT 8/9 and PreACT

Your PreACT® 8/9 Composite Score is 19

This graph shows your PreACT 8/9 scores and how they compare to the PreACT 8/9 Readiness Benchmarks.



Your Predicted PreACT® Composite Score Range is 21–24

The predicted PreACT score ranges assume you will have typical achievement growth and take the PreACT test in 10th grade.

21–24	21–23	19–23	20–23	21–23	22–27
COMPOSITE	MATH	SCIENCE	STEM	ENGLISH	READING

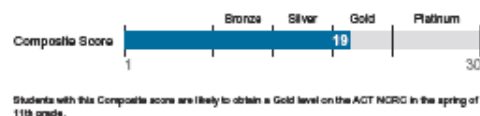
Your Predicted ACT Composite Score Range is 22–26

The predicted ACT score ranges assume you will have typical achievement growth and take the ACT test in spring of 11th grade.

22–26	23–27	20–26	20–26	23–27	23–28
COMPOSITE	MATH	SCIENCE	STEM	ENGLISH	READING

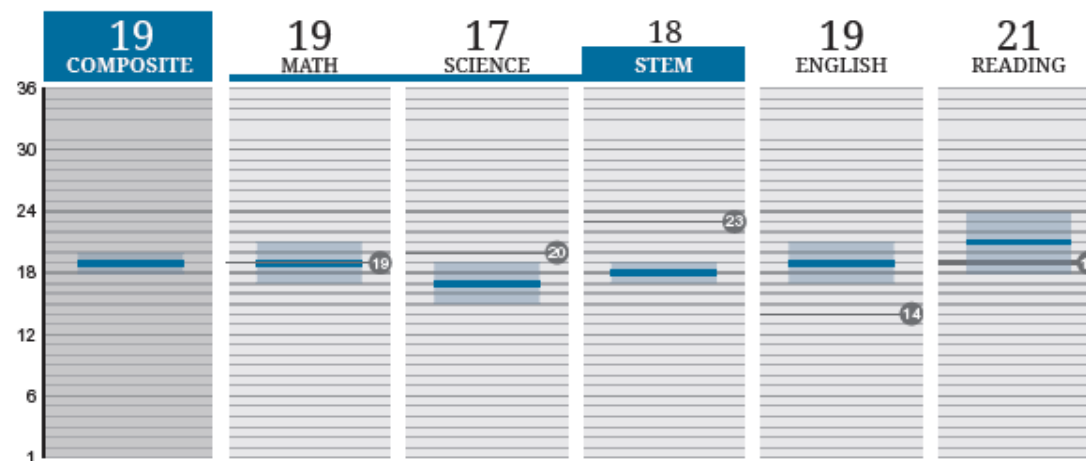
Progress Toward the ACT National Career Readiness Certificate®

This indicator predicts the ACT National Career Readiness Certificate (NCRC®) that students with this PreACT 8/9 Composite score are likely to obtain. The ACT NCRC is an assessment-based credential that documents foundational work skills important for job success across industries and occupations. Visit www.act.org/NCRC-indicator to learn more.



Your PreACT® Composite Score is 19

This graph shows your PreACT scores and how they compare to the PreACT Readiness Benchmarks.



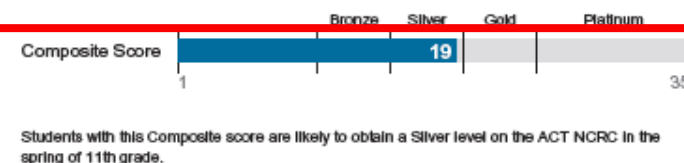
Your Predicted ACT Composite Score Range is 20–23

The predicted ACT score ranges assume you will have typical achievement growth and take the ACT test in spring of 11th grade.

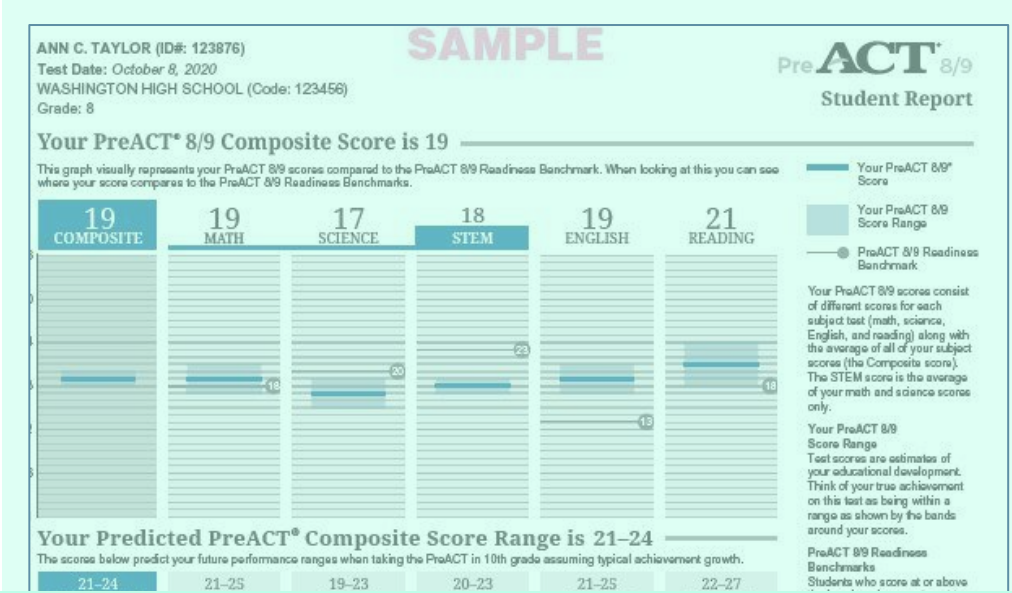
20–23	20–24	18–22	18–22	20–24	21–26
COMPOSITE	MATH	SCIENCE	STEM	ENGLISH	READING

Progress Toward the ACT National Career Readiness Certificate®

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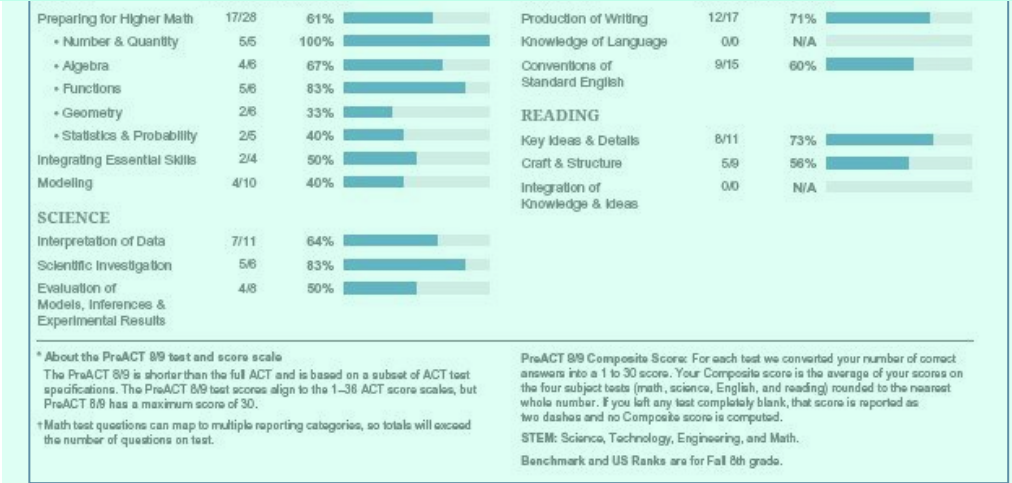


PreACT & PreACT 8/9 STUDENT REPORT



NCRC Indicator

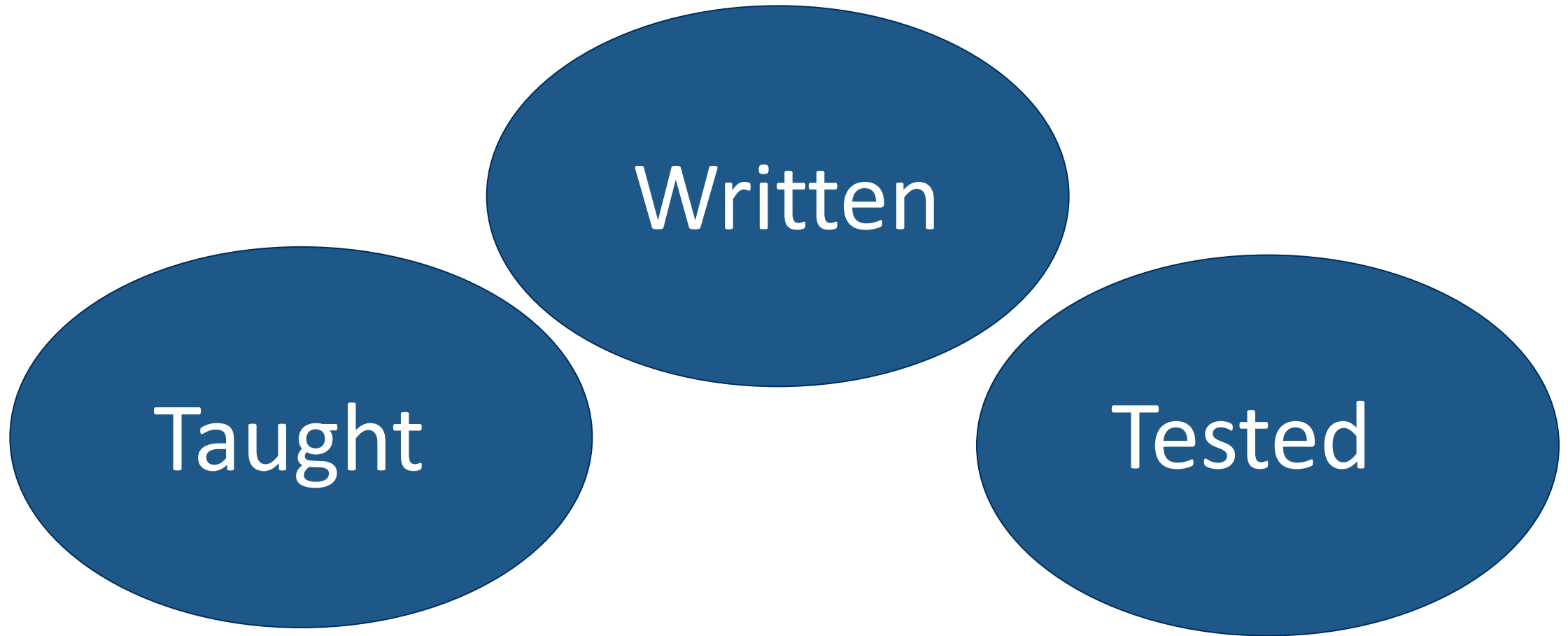
Predicts the ACT National Career Readiness Certificate (NCRC) students are likely to obtain



Curriculum & Instruction

**Programmatic action to support teaching
and learning**

Three Types of Curriculum



Mapping ACT Standards Against District Curriculum



SCORE RANGE	Production of Writing TOPIC DEVELOPMENT IN TERMS OF PURPOSE & FOCUS (TOD)
13-15	TOD 201. Delete material because it is obviously irrelevant in terms of the topic of the essay
16-19	TOD 301. Delete material because it is obviously irrelevant in terms of the focus of the essay TOD 302. Identify the purpose of a word or phrase when the purpose is simple (e.g., identifying a person, defining a basic term, using common descriptive adjectives) TOD 303. Determine whether a simple essay has met a straightforward goal
20-23	TOD 401. Determine relevance of material in terms of the focus of the essay TOD 402. Identify the purpose of a word or phrase when the purpose is straightforward (e.g., describing a person, giving examples) TOD 403. Use a word, phrase, or sentence to accomplish a straightforward purpose (e.g., conveying a feeling or attitude)

Students who score in the 13-15 range are likely beginning the knowledge assessed in the

THE ACT COLLEGE READINESS BE...
FOR ENGLISH IS...
who achieve the...
ACT English Test...
likelihood of act...
better in a first-y...
Composition co...
typical college...
and skills highly...
demonstrated b...
who meet the B...
shaded.

TOD 302. Identify the purpose of a word or phrase when the purpose is **simple** (e.g., identifying a person, defining a basic term, using common descriptive adjectives)

TOD 402. Identify the purpose of a word or phrase when the purpose is **straightforward** (e.g., describing a person, giving examples)

TOD 502. Identify the purpose of a word, phrase, or sentence when the purpose is **fairly straightforward** (e.g., identifying traits, giving reasons, explaining motivations)

TOD 602. Identify the purpose of a word, phrase, or sentence when the purpose is **subtle** (e.g., supporting a later point, establishing tone) or when the best decision is to delete the text in question

TOD 701. Identify the purpose of a word, phrase, or sentence when the purpose is **complex** (e.g., anticipating a reader's need for background information) or requires a thorough understanding of the paragraph and essay

What do students need to know and in what course?

WHAT:
Curriculum Review Worksheets
(download at act.org/standards)

*Creating a pathway of knowledge and skills
to master for college and career readiness.*

WHY:
Inform Grade level/course “Mastery”
Targets

If we don’t know what ALL students are to
learn in a grade level or course, then we
don’t know “where and about what” to
intervene!

English Curriculum Review Worksheets

Table 1. ACT English College and Career Readiness Standards for Score Range 13-15

English College and Career Readiness Standards			For each skill, knowledge, or process:		
			Is it included in your English curriculum?	At what grade level (or in which course) are students first introduced to it?	At what grade level (or in which course) are students expected to demonstrate proficiency ?
TOD	201	Delete material because it is obviously irrelevant in terms of the topic of the essay			
ORG	201	Determine the need for transition words or phrases to establish time relationships in simple narrative essays (e.g., <i>then, this time</i>)			
KLA	201	Revise vague, clumsy, and confusing writing that creates obvious logic problems			
SST	201	Determine the need for punctuation or conjunctions to join simple clauses			
SST	202	Recognize and correct inappropriate shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences			
USG	201	Form the past tense and past participle of irregular but commonly used verbs			
USG	202	Form comparative and superlative adjectives			
PUN	201	Delete commas that create basic sense problems (e.g., between verb and direct object)			

How do the ACT CCR Math Standards and Topics Represent in Course? How do the topics line up at your school?

K-8/Pre-Algebra	Algebra I	Geometry	Algebra 2	Advanced Math/Trig
Add, Subtract, Multiply, Divide whole numbers, integers, fractions, decimals Ordering number Absolute Value Factors, primes, multiples Square roots, exponents, scientific notation, Order of Operations, Percent Ratio and Proportions, Mean, Median, Mode Probability, counting techniques Writing linear expressions and equations Solving linear equations	Evaluating algebraic expressions Properties of exponents and square roots Algebraic operations Factoring polynomials Solving quadratic equations by factoring Graphs of points and lines Slope of a line Graphing equations and systems of equations and inequalities Data collection, representation, interpretation	Distance and midpoint formulas Angles Perpendicular & parallel lines Quadrilaterals Triangles Proof & proof techniques Circles Transformations Geometric formulas Three-dimensional geometry Perimeter, area and volume formulas	Graphing inequalities on a number line Graphs of circles & parabolas Solving inequalities Equations and inequalities w/absolute value Systems of equations Rational and radical expressions Quadratic formula Quadratic inequalities Complex numbers Sequences and patterns	Trigonometric relationships in right triangles Values and properties of trigonometric functions Using trigonometric identities Trigonometry of the unit circle Graphing trigonometric functions

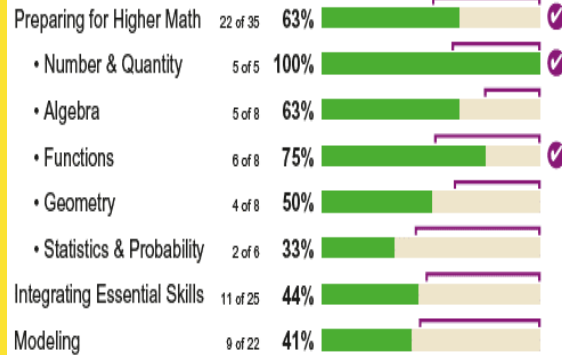
These topics are available for practice in ACT Online Prep!

Reporting Categories!

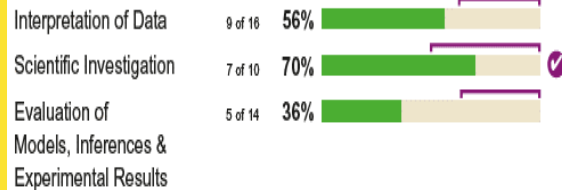
ACT Student Report

Detailed Results

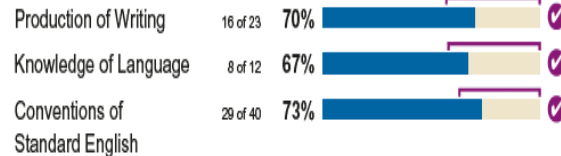
MATH 19



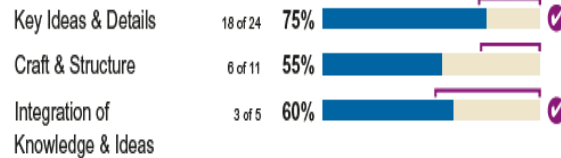
SCIENCE 18



ENGLISH 24



READING 23



Understanding Complex Texts



Understanding Complex Texts: This indicator lets you know if you are understanding the central meaning of complex texts at a level that is needed to succeed in college courses with higher reading demand.

PreACT Student Report

Your Detailed PreACT Results

The scores below represent your performance on reporting categories measured by the test. Reporting category designations are provided to help you to start to focus on strengths and weaknesses. Categories with only a few items may be less representative of your overall achievement in that category.

MATH

	Correct/Total	Percent Correct
Preparing for Higher Math	13/21	62%
• Number & Quantity	3/3	100%
• Algebra	3/5	60%
• Functions	4/5	80%
• Geometry	2/5	40%
• Statistics & Probability	1/3	33%
Integrating Essential Skills	7/15	47%
Modeling	4/10	40%

SCIENCE

Interpretation of Data	6/12	50%
Scientific Investigation	6/10	60%
Evaluation of Models, Inferences & Experimental Results	2/8	25%

ENGLISH

	Correct/Total	Percent Correct
Production of Writing	10/14	71%
Knowledge of Language	5/7	71%
Conventions of Standard English	14/24	58%

READING

Key Ideas & Details	10/14	71%
Craft & Structure	4/8	50%
Integration of Knowledge & Ideas	2/3	67%

Understanding Complex Texts

This indicator lets you know if you are understanding the central meaning of complex texts at a level that is needed to succeed in college courses with higher reading demand.



* About the PreACT test and score scale

The PreACT is shorter than the full ACT and is based on a subset of ACT test specifications. The PreACT is reported on the same 1 to 36 score scales as the ACT, but PreACT has a maximum score of 35.

† Math test questions can map to multiple reporting categories, so totals will exceed the number of questions on test.

PreACT Composite Score: For each test we converted your number of correct answers into a 1 to 35 score. Your Composite score is the average of your scores on the four subject tests (math, science, English, and reading) rounded to the nearest whole number. If you left any test completely blank, that score is reported as two dashes and no Composite score is computed.

STEM: Science, Technology, Engineering, and Math.

Why are Reporting Categories Important?

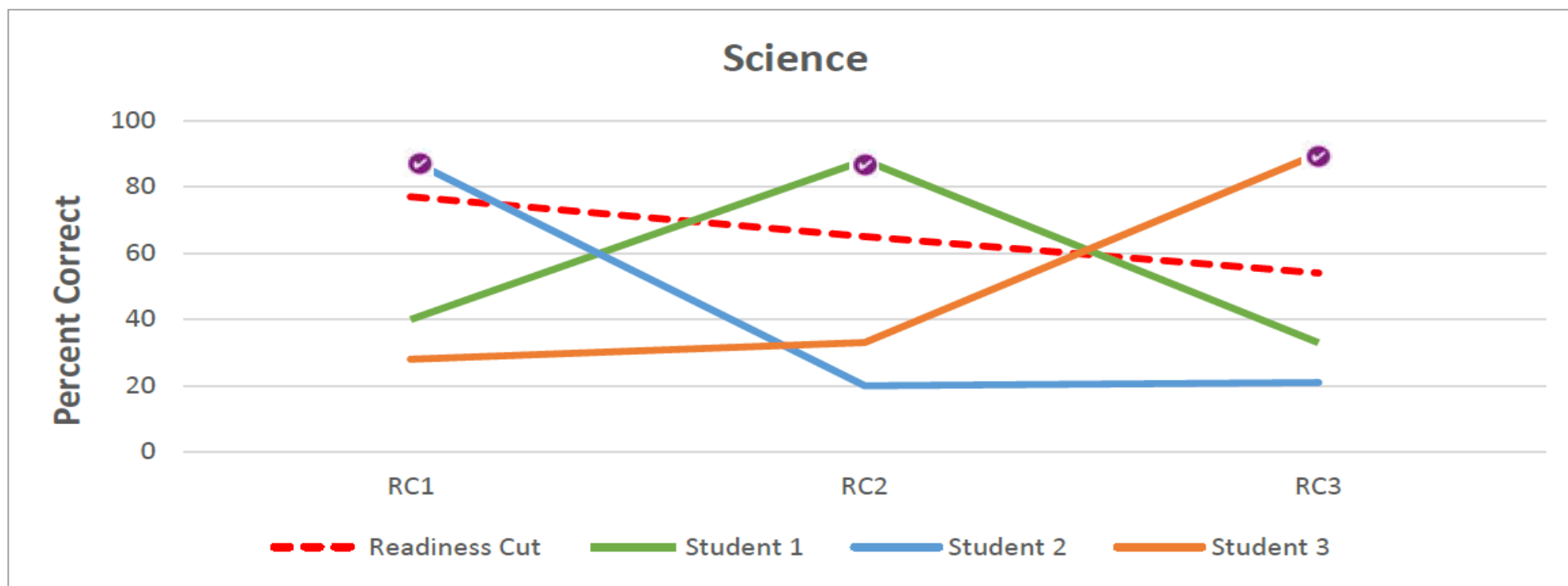


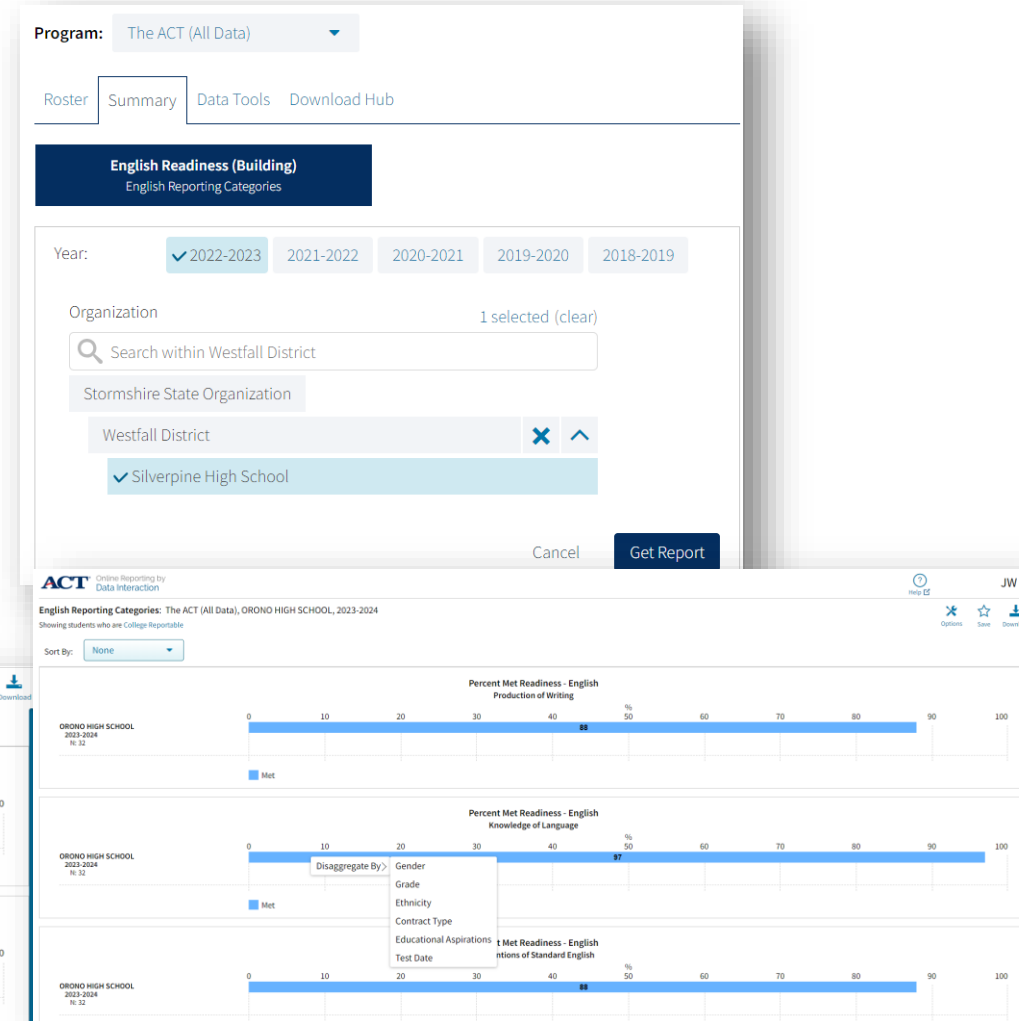
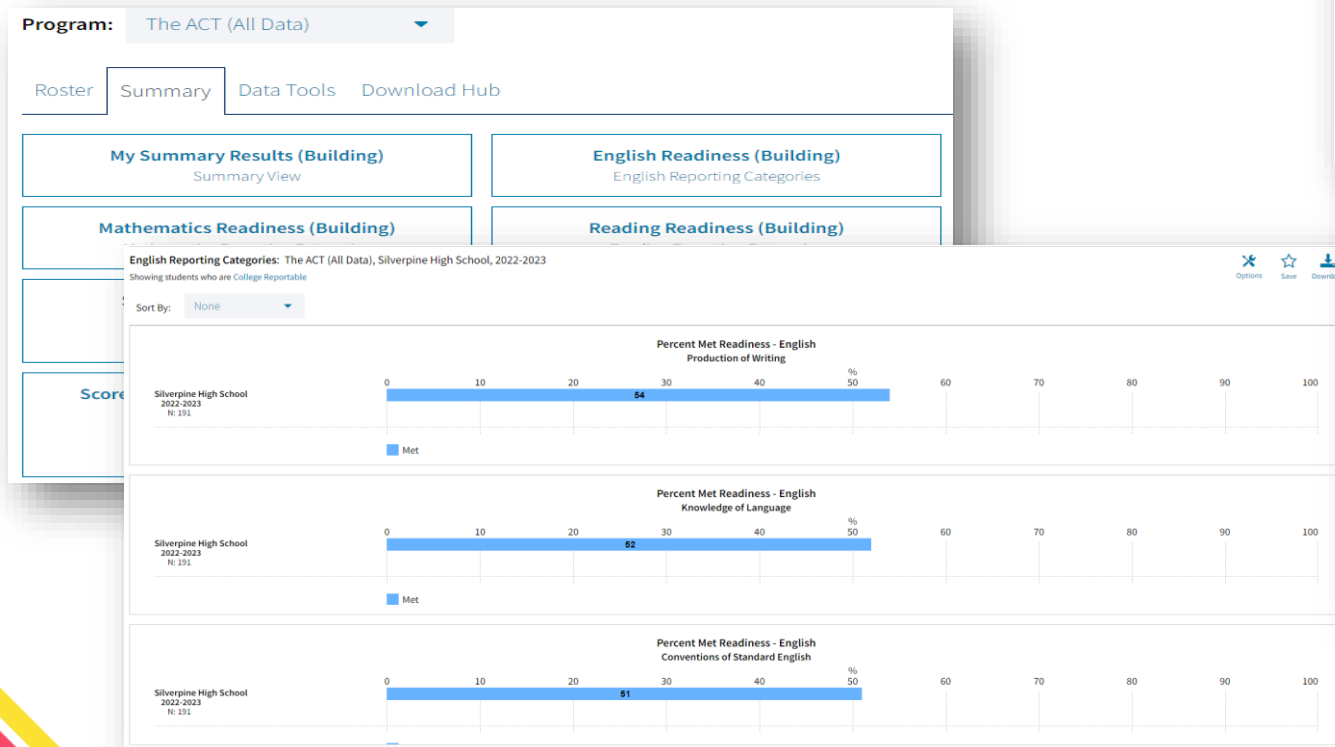
Figure 2. Example ACT Science Score Profiles

All Students scored an 18, but how did each student earn the 18?

What story does your data tell?

SPECIFICATION RANGES BY REPORTING CATEGORY

Reporting Category	Number of Items	Percentage of Test
Production of Writing	22–24	29–32%
Knowledge of Language	11–13	15–17%
Conventions of Standard English	39–41	52–55%
Total Number of Items	75	100%



Percentage Meeting Benchmarks

Program: The ACT (All Data) ▼

Roster Summary Data Tools Download Hub

My Summary Results (District)
Summary View

English Readiness (District)
English Reporting Categories

Mathematics Readiness (District)
Mathematics Reporting Categories

Science Readiness (District)
Science Reporting Categories

Score Distribution Quartiles (District)
ACT Score Quartile Values

Options Save Download Table Chart Transpose

Organization Stats Disaggregate Filter

Subjects - Superscores Select All / Reset

Composite Math Science STEM English Reading Writing ELA

Subjects Select All / Reset

	Valid Number	Mean Score	Met Benchmark	Not Met Benchmark	CCRS Range
Composite	✓	✓	✓		-
Math	-	✓	✓		
Science	-	✓	✓		
STEM	-	✓	✓		-
English	-	✓	✓		
Reading	-	✓	✓		
Writing		✓	-	-	-
ELA	-	✓	✓		-

Met Readiness - Math Select All / Reset

Met Readiness - Science Select All / Reset

Met Readiness - English Select All / Reset

Met Readiness - Reading Select All / Reset

Career Readiness Select All / Reset

Groups Per Page 20 Cancel Update

Program: The ACT (All Data) ▼

Roster Summary Data Tools Download Hub

My Summary Results (District)
Summary View

Year: ✓ 2022-2023 ✓ 2021-2022 ✓ 2020-2021 ✓ 2019-2020 ✓ 2018-2019

Organization 1 selected (clear)

Search within Westfall District

Stormshire State Organization

Westfall District

✓ Duskwood High School

Silverpine High School

Tanaris High School

Summary View: The ACT (All Data)

Showing students who are College Reportable

Group	Year	Composite			Math		Science	
		Valid Number	Mean Score	Meeting All 4 Benchmarks	Mean Score	Benchmark	Mean Score	Benchmark
				% Met		% Met		% Met
Westfall District	2022-2023	562	19.9	20	19.0	28	20.3	35
Westfall District	2021-2022	15441	24.3	48	23.3	61	24.0	61
Westfall District	2020-2021	8073	19.0	19	18.7	28	19.3	28
Westfall District	2019-2020	12776	18.8	17	18.5	25	19.2	27
Westfall District	2018-2019	17073	18.7	16	18.4	25	18.8	25
Duskwood High School	2022-2023	184	19.7	17	18.8	26	20.1	31
Duskwood High School	2021-2022	5080	24.3	48	23.3	60	24.0	61
Duskwood High School	2020-2021	2811	19.0	18	18.6	27	19.2	28
Duskwood High School	2019-2020	4282	18.8	17	18.6	25	19.1	27
Duskwood High School	2018-2019	5762	18.7	17	18.5	26	18.9	25

Intervention Needed
1-14On the Cusp
15-16On Target
17-30

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1		Career Choice	Composite		Math		Science		STEM		English		Reading	
2	Name		Score	Predicted ACT	Score	Predicted ACT	Score	Predicted ACT	Score	Predicted ACT	Score	Predicted ACT	Score	Predicted ACT
3	Name	No response	11	11 - 14	13	12 - 16	10	11 - 16	12	12 - 15	14	14 - 19	5	08 - 14
4	Name	Computer & Information Specialties	11	11 - 14	14	13 - 17	9	11 - 16	12	12 - 15	11	11 - 16	9	10 - 16
5	Name	No response	12	12 - 15	14	13 - 17	15	15 - 20	15	15 - 18	10	11 - 16	7	09 - 15
6	Name	No response	12	12 - 15	15	14 - 18	12	13 - 18	14	14 - 17	8	09 - 14	13	12 - 18
7	Name	Marketing & Sales	12	12 - 15	11	10 - 14	13	13 - 18	12	12 - 15	7	08 - 13	15	14 - 19
8	Name	Management	13	13 - 16	13	12 - 16	12	13 - 18	13	13 - 16	11	11 - 16	14	13 - 19
9	Name	Communications & Records	13	13 - 16	14	13 - 17	9	11 - 16	12	12 - 15	12	12 - 17	15	14 - 19
10	Name	Health Care	13	13 - 16	15	14 - 18	17	16 - 21	16	16 - 19	11	11 - 16	10	11 - 16
11	Name	No response	13	13 - 16	16	15 - 19	12	13 - 18	14	14 - 17	12	12 - 17	10	11 - 16
12	Name	Financial Transactions	13	13 - 16	13	12 - 16	15	15 - 20	14	14 - 17	9	10 - 15	13	12 - 18
13	Name	Management	14	14 - 17	13	12 - 16	14	14 - 19	14	14 - 17	10	11 - 16	19	16 - 22
14	Name	Transport Operation & Related	14	14 - 17	14	13 - 17	18	17 - 22	16	16 - 19	9	10 - 15	13	12 - 18
15	Name	Marketing & Sales	14	14 - 17	15	14 - 18	19	18 - 23	17	17 - 20	13	13 - 18	10	11 - 16
16	Name	Community Services	14	14 - 17	17	17 - 20	18	17 - 22	18	18 - 21	14	14 - 19	7	09 - 15
17	Name	Personal Services	15	15 - 18	15	14 - 18	18	17 - 22	17	17 - 20	12	12 - 17	16	14 - 20
18	Name	No response	15	15 - 18	15	14 - 18	14	14 - 19	15	15 - 18	15	15 - 20	15	14 - 19
19	Name	Medical Diagnosis & Treatment	15	15 - 18	15	14 - 18	14	14 - 19	15	15 - 18	9	10 - 15	22	19 - 24
20	Name	Creative & Performing Arts	15	15 - 18	17	17 - 20	17	16 - 21	17	17 - 20	9	10 - 15	17	15 - 21
21	Name	Financial Transactions	16	16 - 19	16	15 - 19	17	16 - 21	17	17 - 20	12	12 - 17	20	17 - 23
22	Name	Engineering & Technologies	16	16 - 19	19	19 - 22	13	13 - 18	16	16 - 19	16	16 - 21	15	14 - 19
23	Name	Management	17	17 - 20	17	17 - 20	17	16 - 21	17	17 - 20	13	13 - 18	19	16 - 22
24	Name	No response	17	17 - 20	16	15 - 19	20	18 - 23	18	18 - 21	16	16 - 21	17	15 - 21
25	Name	Medical Diagnosis & Treatment	18	18 - 21	13	12 - 16	18	17 - 22	16	16 - 19	15	15 - 20	24	21 - 26
26	Name	Agriculture Forestry & Related	18	18 - 21	17	17 - 20	20	18 - 23	19	19 - 22	14	14 - 19	19	16 - 22
27	Name	Financial Transactions	19	19 - 22	16	15 - 19	11	12 - 17	14	14 - 17	15	15 - 20	35	31 - 36
28	Name	Medical Diagnosis & Treatment	20	20 - 23	22	22 - 25	19	18 - 23	21	20 - 24	20	19 - 24	19	16 - 22
29	Name	No response	23	23 - 26	16	15 - 19	22	20 - 25	19	19 - 22	20	19 - 24	35	31 - 36
30	Name	Marketing & Sales	28	28 - 31	22	22 - 25	24	22 - 27	23	22 - 26	30	30 - 35	35	31 - 36
31	Name	Natural Science & Technologies	30	30 - 34	29	28 - 32	31	28 - 33	30	30 - 33	30	30 - 35	29	25 - 31

Student Learning Needs

- Who needs additional support?
- What support do they need?

IDEAS FOR PROGRESS – see link below

Content Standards and Ideas for Progress by ACT, Inc.

Content Standards Dashboard Ideas for Progress Dashboard Downloadable Curriculum Work...

ACT

Skill Enhancement for Reading (Benchmark = 22)

Skill-Enhancing Possibilities within Select College and Career Readiness Standards (CCRS) Score Range(s)

Content Strand	Content Substrand	Score Range	Suggested Activities	Click for More Detail
Key Ideas and Details	Close Reading	01-12	Combine several pieces of information to draw a logical conclusion about a specific character.	<input type="radio"/>
			Locate and discuss details presented in a text (e.g., who, what, where, when).	<input type="radio"/>
			Make predictions about characters and events presented in a literary narrative, verify or reject those predictions, and make new ones while reading.	<input type="radio"/>
		13-15	Recognize generalizations about the main character in a literary narrative.	<input type="radio"/>
			Draw reasonable conclusions about people and situations using evidence presented in increasingly challenging texts.	<input type="radio"/>
			Scan a text to locate specific details (e.g., dates, specialized terms, facts).	<input type="radio"/>
			Identify inaccurate generalizations (e.g., stereotypes) in written or nonprint sources.	<input type="radio"/>
			Make reasoned judgments about ideas and events based on evidence from written or nonprint sources.	<input type="radio"/>

Select Content Area
Reading (Benchmark = 22)

Select ACT Score Range(s)
☒ 01-12
☒ 13-15
☒ 16-19
☒ 20-23
☒ 24-27
☒ 28-32

Select Content Strand(s)
☒ All
☒ Key Ideas and Details
☒ Craft and Structure
☒ Integration of Knowledge and Ideas

Select Content Sub-Strand(s)
(English and Reading Only)
☒ All
☒ Close Reading
☒ Central Ideas, Themes, and Summaries
☒ Relationships
☒ Word Meanings and Word Choice
☒ Text Structure
☒ Purpose and Point of View
☒ Arguments
☒ Academic Vocabulary

Search for Keywords in Suggested Activities
(Click "X" to undo search)

<https://public.tableau.com/app/profile/act2044/viz/ContentStandardandIdeasforProgress/ContentStandardsDashboard?publish=yes>

PreACT Readiness Levels Research



Utilize ACT Resources

Ideas for Progress: 3 tabs

<https://public.tableau.com/app/profile/act2044/viz/ContentStandardIdeasforProgress/ContentStandardsDashboard?publish=yes>

Content Standards and Ideas for Progress by ACT, Inc.

ACT Content Standards for Reading (Benchmark = 22)

Skills Demonstrated within Select ACT College and Career Readiness Standards (CCRS) Score Range(s)

Reporting Category	Content Substrand	Score Range	Standard Description	Click for More Detail
Key Ideas and Details	Close Reading (CLR)	13-15	CLR 201. Locate basic facts (e.g., names, dates, events) clearly stated in a passage.	<input type="radio"/>
			CLR 202. Draw simple logical conclusions about the main characters in somewhat challenging literary narratives.	<input type="radio"/>

Content Standards and Ideas for Progress by ACT, Inc.

ACT Curriculum Worksheet for Reading (Benchmark = 22)

To Customize: Download as "Crosstab" > [select data type] using the download button at top right

Reporting Category	Standard Content Abbreviation	Standard Number	Standard Description	Where is this found in your Learning Targets?	Does this describe more attention in your curriculum?	Where & How can I Enhance Teaching and Assessment?
Key Ideas and Details	CLR	201	CLR 201. Locate basic facts (e.g., names, dates, events) clearly stated in a passage.			
		202	CLR 202. Draw simple logical conclusions about the main characters in somewhat challenging literary narratives.			

Content Standards and Ideas for Progress by ACT, Inc.

Skill Enhancement for Reading (Benchmark = 22)

Skill-Enhancing Possibilities within Select College and Career Readiness Standards (CCRS) Score Range(s)

Content Strand	Content Substrand	Score Range	Suggested Activities	Click for More Detail
Key Ideas and Details	Close Reading	01-12	Combine several pieces of information to draw a logical conclusion about a specific character.	<input type="radio"/>
			Locate and discuss details presented in a text (e.g., who, what, where, when).	<input type="radio"/>
			Make predictions about characters and events presented in a literary narrative, verify or reject those predictions, and make new ones while reading.	<input type="radio"/>
			Recognize generalizations about the main character in a literary narrative.	<input type="radio"/>
		13-15	Draw reasonable conclusions about people and situations using evidence presented in increasingly challenging texts.	<input type="radio"/>
			Scan a text to locate specific details (e.g., dates, specialized terms, facts).	<input type="radio"/>
			Identify inaccurate generalizations (e.g., stereotypes) in written or nonprint sources.	<input type="radio"/>
			Make reasoned judgments about ideas and events based on evidence from written or nonprint sources.	<input type="radio"/>



ACT Curriculum Worksheets

www.act.org - search Curriculum Review Worksheets and choose format that fits your purpose best

Table 3. ACT Reading College and Career Readiness Standards for Score Range 20-23

Reading College and Career Readiness Standards		For each skill, knowledge, or process:		
		Is it included in your Reading curriculum?	At what grade level (or in which course) are students first introduced to it?	At what grade level (or in which course) are students expected to demonstrate proficiency?
CLR	401	Locate important details in somewhat challenging passages		
CLR	402	Draw logical conclusions in somewhat challenging passages		
CLR	403	Draw simple logical conclusions in more challenging passages		
CLR	404	Paraphrase some statements as they are used in somewhat challenging passages		
IDT	401	Infer a central idea in straightforward paragraphs in somewhat challenging literary narratives		
IDT	402	Identify a clear central idea or theme in somewhat challenging passages or their paragraphs		
IDT	403	Summarize key supporting ideas and details in somewhat challenging passages		
REL	401	Order simple sequences of events in somewhat challenging literary narratives		
REL	402	Identify clear comparative relationships in somewhat challenging passages		
REL	403	Identify clear cause-effect relationships in somewhat challenging passages		
WME	401	Analyze how the choice of a specific word or phrase shapes meaning or tone in somewhat challenging passages		
		Interpret most words and phrases as they are used in somewhat challenging		

ACT College & Career Readiness Standards
READING

SCORE RANGE	Key Ideas and details, CENTRAL IDEAS, THEMES, AND SUMMARIES (IDT)
13-15	IDT 201. Identify the topic of passages and distinguish the topic from the central idea or theme
16-19	IDT 301. Identify a clear central idea in straightforward paragraphs in somewhat challenging literary narratives
20-23	IDT 401. Infer a central idea in straightforward paragraphs in somewhat challenging literary narratives IDT 402. Identify a clear central idea or theme in somewhat challenging passages or their paragraphs IDT 403. Summarize key supporting ideas and details in somewhat challenging passages

Students who score in the 1-12 range are most likely beginning to develop the knowledge and skills assessed in the other ranges.

THE ACT COLLEGE READINESS BENCHMARK FOR READING IS 22. Students who achieve this score on the ACT Reading Test have a 50% likelihood of achieving a B or better in a first-year social science course at a typical college. The knowledge and skills highly likely to be demonstrated by students who meet the Benchmark are shaded.

QUESTIONS & DISCUSSION

1. How do you ensure that assessments align with the learning objectives and curriculum standards?
2. In what ways do you use assessment data to inform instructional practices and differentiate instruction to meet individual student needs?
3. How do you involve students in the assessment process, and how do you provide them with feedback on their performance?
4. What strategies or interventions do you implement based on assessment results to support struggling students and/or additional enrichment?
5. How do you monitor and track student progress over time using assessments, and how do you communicate this information to students, parents, and other stakeholders?



ACTIVITY # 2 (10 min)

Think-Pair-Share: Take a moment to reflect on a question or discussion topic utilizing the tools/resources we've discussed. Then pair up with a partner (or two) to discuss thoughts. Finally, share your ideas with the larger group!



2024 ACT MO Graduate Profile Report

ACT: Comprehensive Readiness

- **Academic Achievement Section Tests:**

- 📖 English
- ➗ Math
- 📖 Reading
- 🧪 **Science (STEM score)**
- ✍️ Writing (optional. ELA score)

- **College Readiness Benchmarks:**

Section-specific benchmarks
STEM benchmark

- **Career Readiness Indicator:**

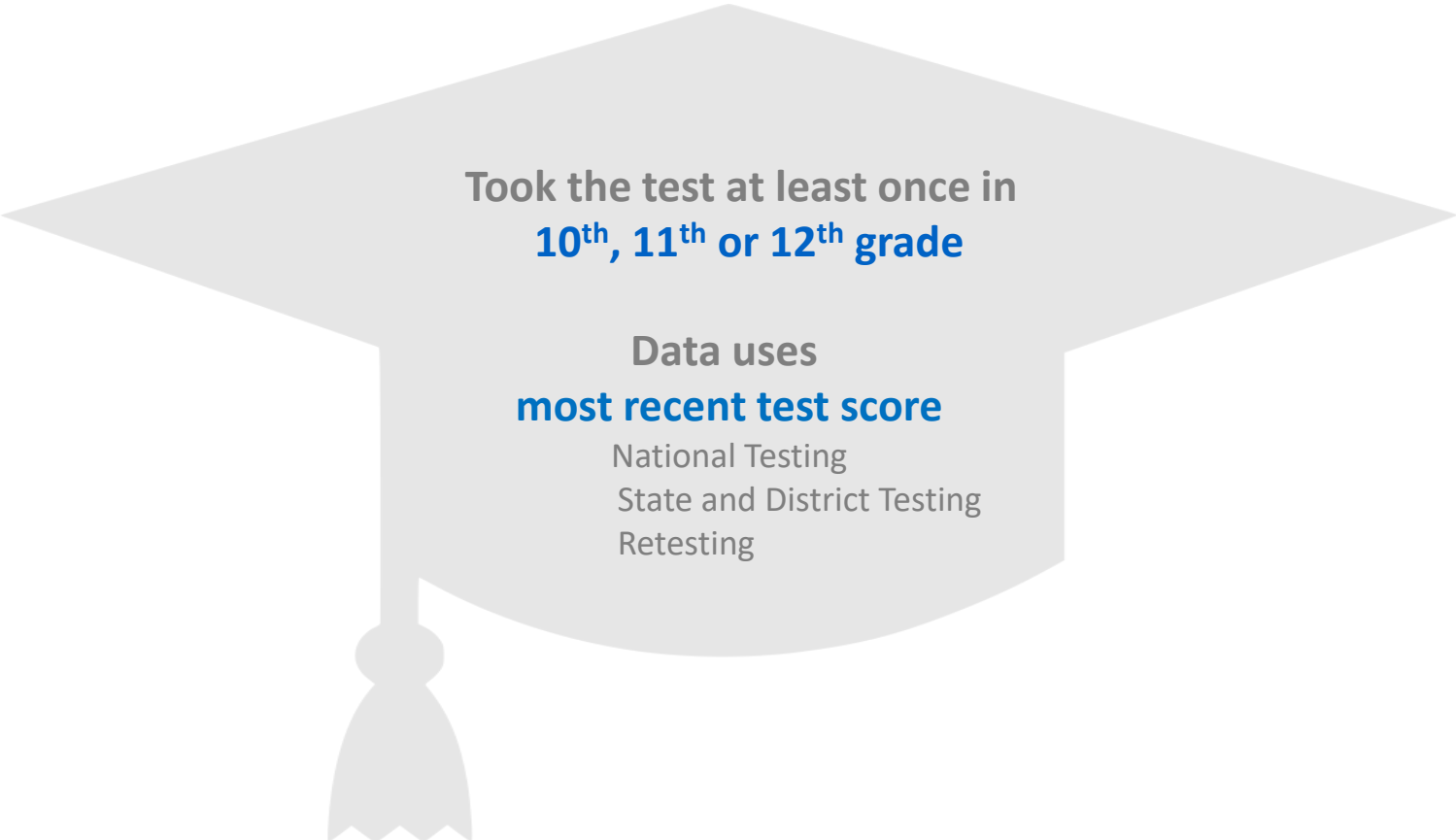
Progress Toward the ACT National Career Readiness Certificate

- **Additional Information:**

- 📄 High School Grade and Course Information
- 👤 Student Profile Section
- 👛 **Interest Inventory**



Which students are considered part of the graduating class?



Took the test at least once in
10th, 11th or 12th grade

Data uses
most recent test score

National Testing
State and District Testing
Retesting

Missouri Celebrations



Missouri Students Soar: ACT Participation Climbs for Third Consecutive Year, Showcasing Ambition and Drive for Opportunity!



Missouri's Perfect Scores Skyrocket:
60 Graduates Ace Test in 2024 Compared to 47 in 2023!

Missouri's Class of 2024 ACT Performance At-A-Glance







18% Met All 4
ACT College
Readiness
Benchmarks



13% Met STEM
Benchmark of 26



65% predicted
Silver+ ACT National
Career Readiness
Certificate (NCRC)

 English	18.3	50%
 Math	18.8	27%
 Reading	20.2	39%
 Science	19.6	29%

Top 3 STEM Aspirations:



Sciences



Engineering



Health
Sciences

Section Mean Scores & College Readiness Benchmark %

Missouri's Student Testing Patterns

Total Number of Testers: 41,579

1

ACT District Testing Rate: 53%

2

Junior vs. Senior Year Testing:

- ACT District Testing: 83% vs. 16%
- National: 31% vs. 67%

3

Retesting Behaviors:

- Tested 2+: 44% with 65% testing senior year.

4

Spring vs. Fall ACT District Testing:

- Spring: 89% overall with 92% juniors tested
- Fall: 11% overall with 84% seniors tested

Insights into Missouri's Student Testing Behaviors: Timing, Participation, and Improvement

Preference for Junior Year Testing in ACT State & District Testing

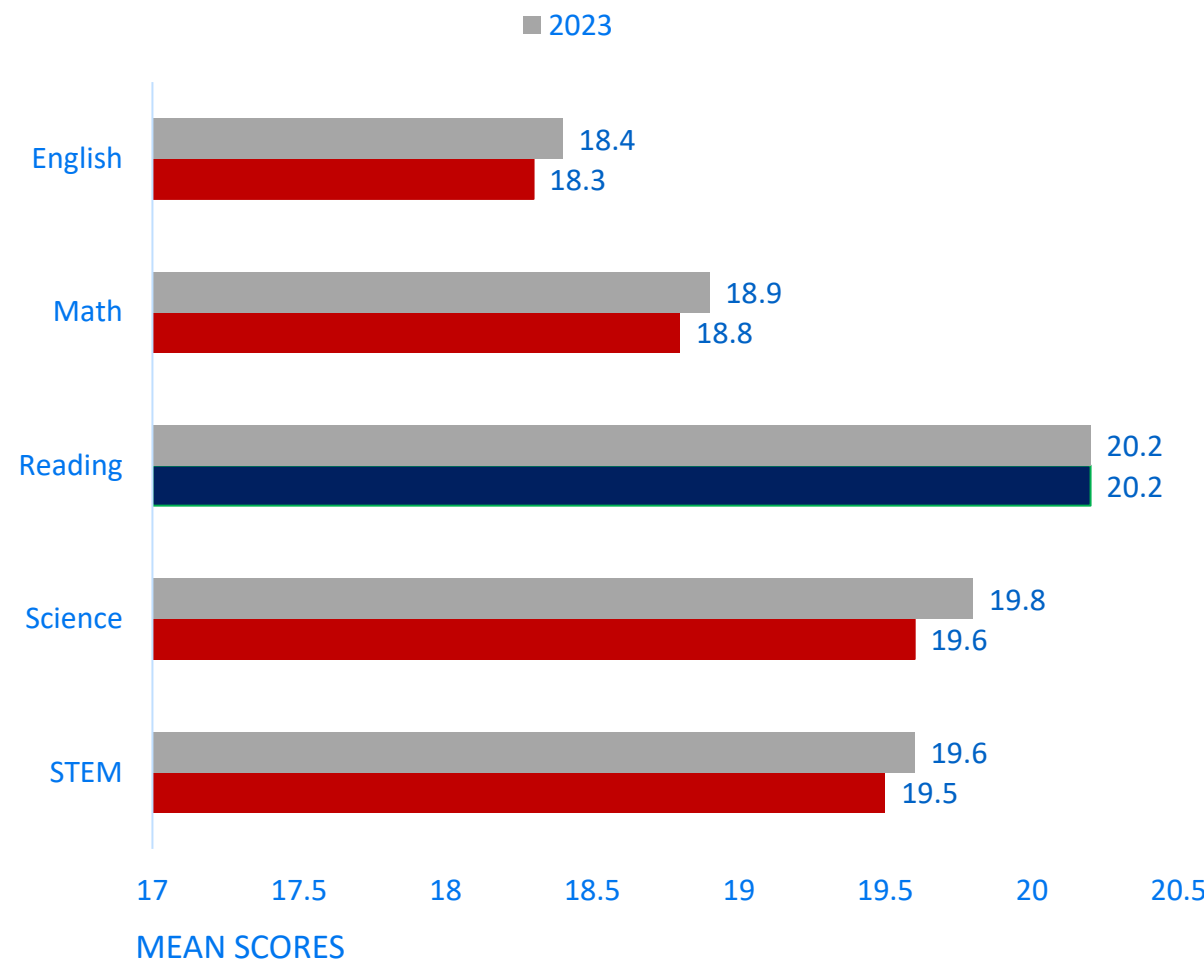
National Tests Favored in Senior Year

Significant Retesting Behavior: Most in their senior year

Seasonal Testing Strategies in Spring vs. Fall State & District Testing

Room for increased participation in ACT State & District Testing for a more comprehensive view of MO student performance.

Missouri's Section Scores Stable Across All Sections from 2023 to 2024



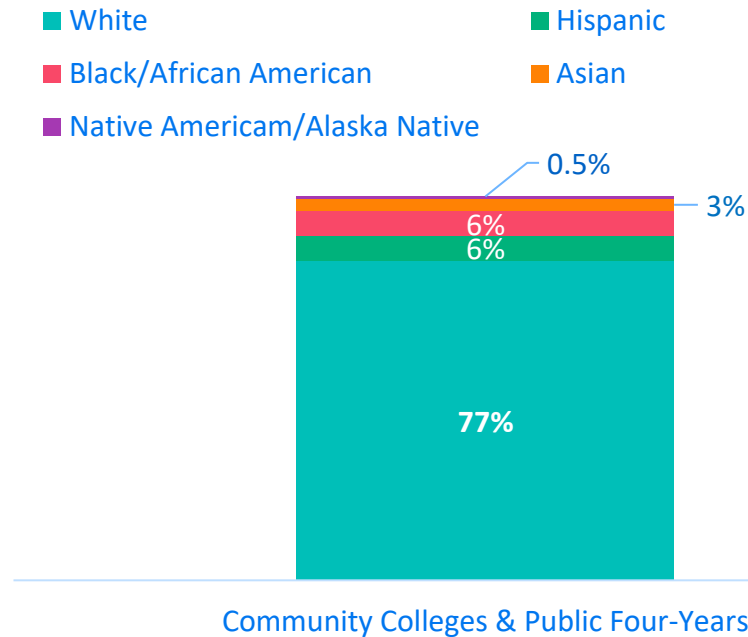
Missouri: Dual Enrollment

IPEDS 12-Month Undergraduate Headcount, 2022 – 2023 AY

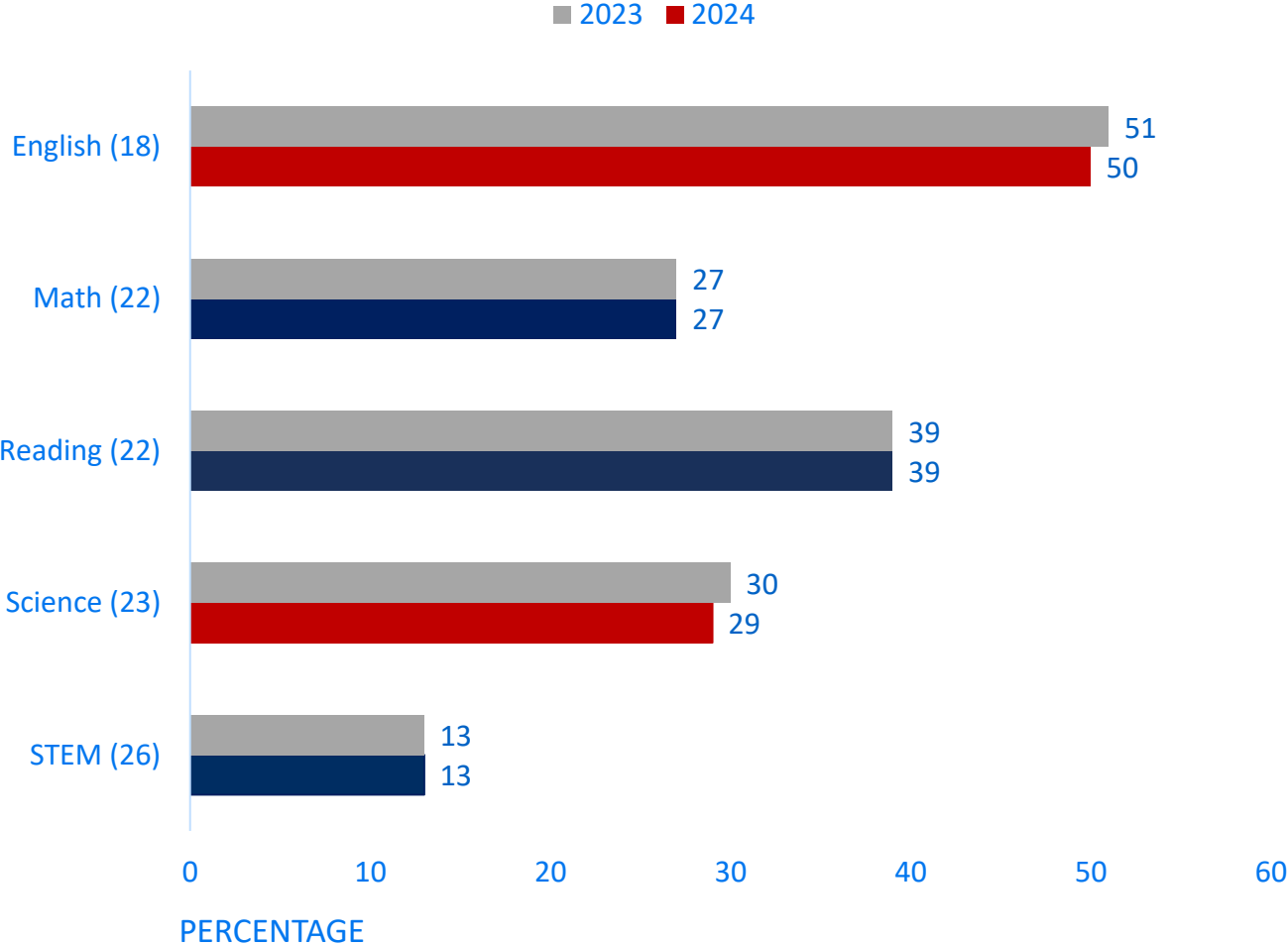
2022 – 2023 Missouri Dual Enrollment Stats:

- 56,026 dual enrollment students
- 18,710 (33%) dual enrolled at community colleges.
- 26,306 (47%) dual enrolled at public four-years.

2022 – 2023 Missouri Dual Enrollment Racial Composition

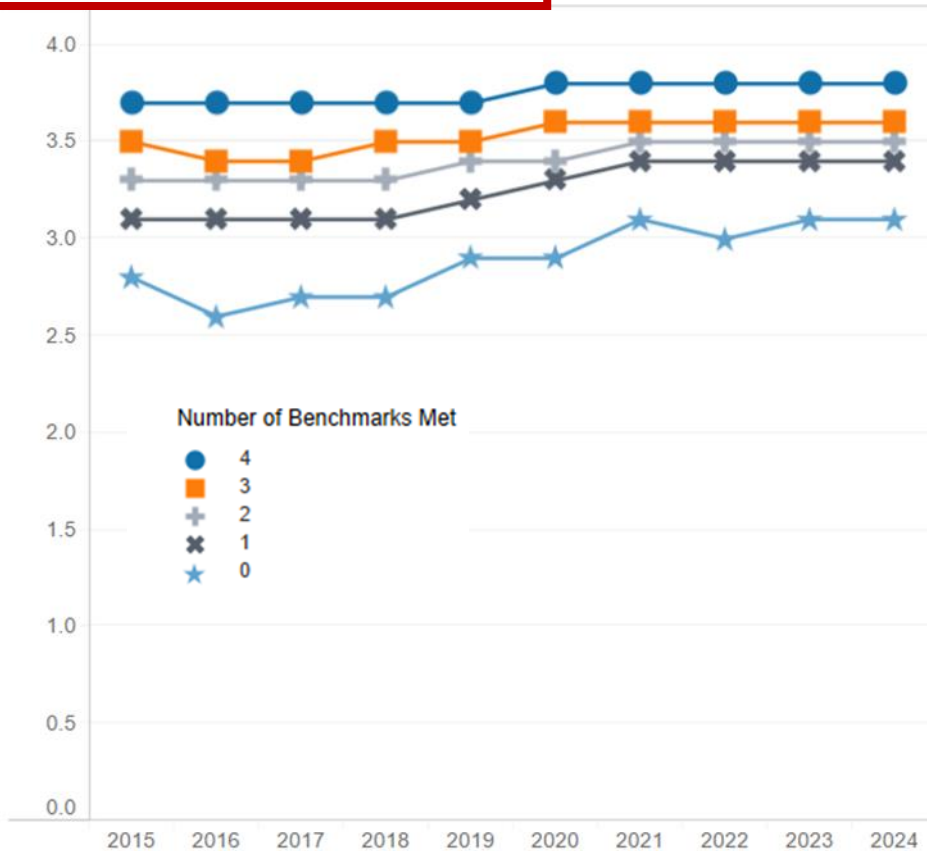


MO College Readiness % are steady



2015 – 2024: Grade Inflation?


Missouri ACT-Tested Graduates - All Students
High School GPA by Number of Benchmarks Met



# benchmarks	2015 GPA	2024 GPA
4	3.7	3.8
3	3.5	3.6
2	3.3	3.5
1	3.1	3.4
0	2.8	3.1

ACT WorkReady

Why it Matters to Businesses



“Missouri's pioneering spirit is evident in Jasper County, which became the first-ever ACT Work Ready Community more than a decade ago. Since then, the program has been a transformative force, helping countless individuals gain the skills and knowledge needed to succeed in today's workforce. Through the ACT National Career Readiness Certificate and the ACT Work Ready Communities



**Subash Alias, CEO
Missouri Partnership**

program, employers can easily match the skills and aptitudes they need with a ready and capable workforce. The program is one of the most innovative and effective ways to support our workforce and strengthen our economy.”

**ACT[®] Work Ready
Communities**

Leadership.....

- Convene partnerships
- Deploy poverty reduction

Economic Dev

- Leverage value of workforce
- Promote to job creators



Employers

- Pinpoint skill needs and hire right the first time
- Save time, money, and risk

Workforce Dev

- Improve placement performance
- Build career pathway options

Educators

- Measure skill gaps
- Align curriculum to sector needs
- Improve completions

ACT[®] Work Ready Communities
workreadycommunities.org



Build
Team

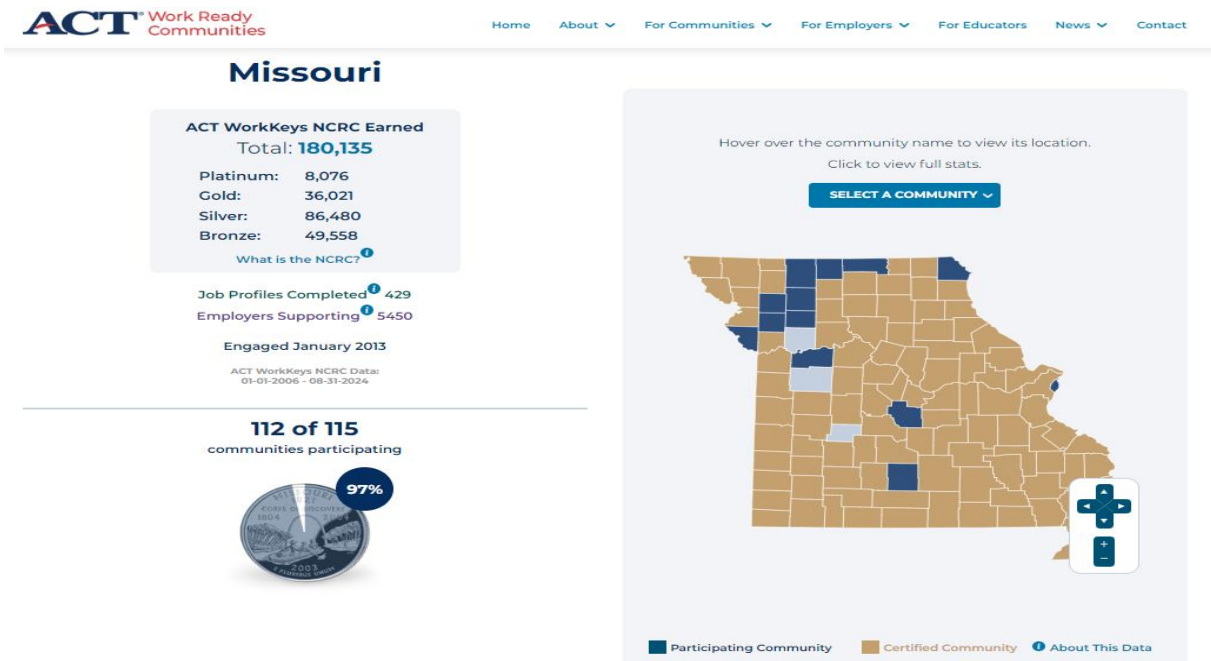
Train &
Plan

Implement

Reach
Goals

Maintain
Certification

Workforce Synergy: ACT Work Ready Communities



Last 3 counties:

- Hickory
- Johnson
- Ray

Experience: No degree
Degree: No experience

WorkKeys Assessments and the NCRC support and provide a common language for jobseekers, workforce developers, educators, and employers to advance and achieve the workforce priorities of the state, while also providing students multiple pathways to success.

Policies and Practices to Increase Career Readiness

- Value College Readiness and Career Readiness Equally
- Career Awareness Activities Should Begin Earlier in a Student's Education
- Use Career Readiness Benchmarks to Set Goals for Students/Adults and Programs
- Offer Authentic Work-Based Learning Experiences
- Leverage NCRC and Work Ready Communities for Economic & Workforce Development

Schuyler County MO Is Work Ready!



“Tri County Electric is excited to have the opportunity to participate in helping the community earn this designation” – Mike Scheib, CEO of Tri-County Electric

“Nobody is going to give you anything. You’re going to have to work for it” – Mike Parson, Missouri’s 57th governor

May 2024

“You don’t want to hire based on only a gut feeling....
You want to have some sort of data.”

The Work Ready Community Initiative empowers counties across the United States to identify skill gaps and quantify the skill level of its workforce. This helps educators build career pathways aligned with the needs of business & Industries!



WorkKeys
Profiling

Industry Readiness Profile for Manufacturing Careers

Median WorkKeys skill levels for entry into these occupations are derived from the ACT WorkKeys Profile Database which includes over 22,000 job analyses for O*NET occupation titles. Additional data can be found at:
<http://jobprofiles.act.org/>

Growth	Occupation	WorkKeys Median Skill Levels			Median Annual Wage 2019	Projected Job Openings 2019-2029
		Applied Math	Workplace Documents	Graphic Literacy		
Fastest Growing	Software Developers	4	5	5	\$107,510	131,400
	Software Quality Assurance Analysts and Testers	4	5	5	\$107,510	131,400
	Industrial Machinery Mechanics	4	4	4	\$53,590	40,500
	Industrial Engineers	5	6	6	\$88,020	21,300
	Human Factors Engineers and Ergonomists	5	6	6	\$88,020	21,300
	Validation Engineers	6	6	6	\$88,020	21,300
	Manufacturing Engineers	6	6	6	\$88,020	21,300
	Dental Laboratory Technicians	3	4	4	\$41,340	4,600
	Ophthalmic Laboratory Technicians	3	3	3	\$32,620	3,700
	Computer Numerically Controlled Tool Programmers	4	4	4	\$56,450	3,100
	Medical Appliance Technicians	3	4	4	\$40,690	1,900
	Orthotists and Prosthetists	3	4	4	\$68,410	900
	Helpers--Production Workers	3	3	3	\$29,100	44,100
	Bakers	3	3	4	\$27,700	26,000
	Electrical Engineers	7	6	6	\$98,530	12,500
	Aircraft Mechanics and Service Technicians	4	5	5	\$64,090	11,200



Occupational Profiles by Industry Sector

- [Accommodation and Food Services](#)
- [Administrative Support](#)
- [Agriculture](#)
- [Arts and Entertainment](#)
- [Construction](#)
- [Education](#)
- [Finance](#)
- [Government](#)
- [Health Care](#)
- [Information Systems](#)
- [Management](#)

- [Manufacturing](#) 
- [Mining](#)
- [Professional Services](#)
- [Real Estate](#)
- [Retail](#)
- [Transportation and Warehousing](#)
- [Utilities](#)
- [Waste Management](#)
- [Wholesale Trade](#)
- [Other Service](#)

ACT National Career Readiness (NCRC) Credential Outcomes for Employers

28,318

Employers recognize the
ACT[®] WorkKeys[®] NCRC[®]

[View employer directory](#)

- Positive relationship between ACT WorkKeys scores and overall job performance
- Negative relationship between ACT WorkKeys scores and number of disciplinary actions
- 23.2% increase in employee productivity in task performance
- 22.1% increase in output due to increased employee safety
- 18.9% reduction in hiring needs due to increased performance
- 19.3% reduction in hiring needs due to increased employee safety
- 25–75% reduction in turnover
- 50–70% reduction in time-to-hire
- 70% reduction in cost-to-hire
- 50% reduction in training time

Occupational Profile Search
(The occupational profiles represent local job profiles combined by O*NET number.)

Job Title / Code:

Career Cluster:

Job Description:

Search by **Your Skill Levels**

Search Results (78)

O*Net Code	Title	Career Cluster	Special
11-9041.00	Architectural and Engineering Managers	Science, Technology, Engineering & Mathematics	
11-9041.01	Biofuels/Biodiesel Technology and Product Development Managers	Science, Technology, Engineering & Mathematics	
15-1221.00	Computer and Information Research Scientists	Science, Technology, Engineering & Mathematics	●
15-2021.00	Mathematicians	Science, Technology, Engineering & Mathematics	
15-2041.00	Statisticians	Science, Technology, Engineering & Mathematics	●
15-2041.01	Biostatisticians	Science, Technology, Engineering & Mathematics	●
15-2051.00	Data Scientists	Science, Technology, Engineering & Mathematics	●
15-2051.02	Clinical Data Managers	Science, Technology, Engineering & Mathematics	●
15-2099.00	Mathematical Science Occupations, All Other	Science, Technology, Engineering & Mathematics	●
17-1021.00	Cartographers and Photogrammetrists	Science, Technology, Engineering & Mathematics	
17-2011.00	Aerospace Engineers	Science, Technology, Engineering & Mathematics	
17-2041.00	Chemical Engineers	Science, Technology, Engineering & Mathematics	

Computer and Information Research Scientists

15-1221.00

- [Bright Outlook](#)
- [Open O*Net Summary Page](#)
- [O*Net Wages & Employment Trends](#)

Career Cluster
Science, Technology, Engineering & Mathematics

O*Net Description
Conduct research into fundamental computer and information science as theorists, designers, or inventors. Develop solutions to problems in the field of computer hardware and software.

ACT WorkKeys Skill Profile

Skill Area	Median Skill Level	Minimum Skill Level	Maximum Skill Level
Applied Math	7	6	7
Workplace Documents	5	5	5
Graphic Literacy	4	4	5
Applied Technology			
Business Writing	4	3	4
Workplace Observation	5	5	5

Tasks:

Analyze problems to develop solutions involving computer hardware and software.

Apply theoretical expertise and innovation to create or apply new technology, such as adapting principles for applying computers to new uses.

Assign or schedule tasks to meet work priorities and goals.

Meet with managers, vendors, and others to solicit cooperation and resolve problems.

Design computers and the software that runs them.

Conduct logical analyses of business, scientific, engineering, and other technical problems, formulating mathematical models of problems for solution by computers.

Evaluate project plans and proposals to assess feasibility issues.

Participate in multidisciplinary projects in areas such as virtual reality, human-computer interaction, or robotics.

Consult with users, management, vendors, and technicians to determine computing needs and system requirements.

Develop and interpret organizational goals, policies, and procedures.

Develop performance standards, and evaluate work in light of established standards.

Maintain network hardware and software, direct network security measures, and monitor networks to ensure availability to system users.

Direct daily operations of departments, coordinating project activities with other departments.

Participate in staffing decisions and direct training of subordinates.

Approve, prepare, monitor, and adjust operational budgets.

Activity: Comparing Careers and WorkKeys Skill Levels

JOB PROFILES SEARCH SUMMARY						
	Job 1		Job 2		Job 3	
Occupation Title	Computer User Support Specialist					
O*NET-SOC Code	15-1151.00					
Median Income \$\$\$	\$50,210					
Job Growth + or - %	+10% to 14%					
WorkKeys® Skill Information	Median Work-Keys Skill Level	My WorkKeys Skill Level	Median WorkKeys Skill Level	My WorkKeys Skill Level	Median Work-Keys Skill Level	My WorkKeys Skill Level
Applied Math		4				
Workplace Documents	4	3				
Graphic Literacy	4	6				

[WorkKeys - Using the Occupational Profile Database](#)

Labor Market Trends

Supply

- Aging population and slow growth
- Decreased labor force participation (especially for the low-skilled population)
- Increased diversity (birth rate and immigration)

Demand

- Increased automation
- Alternative staffing arrangements

How Has Policy Reacted?

College readiness for all

- Enrollment has increased but completion has not

High quality CTE

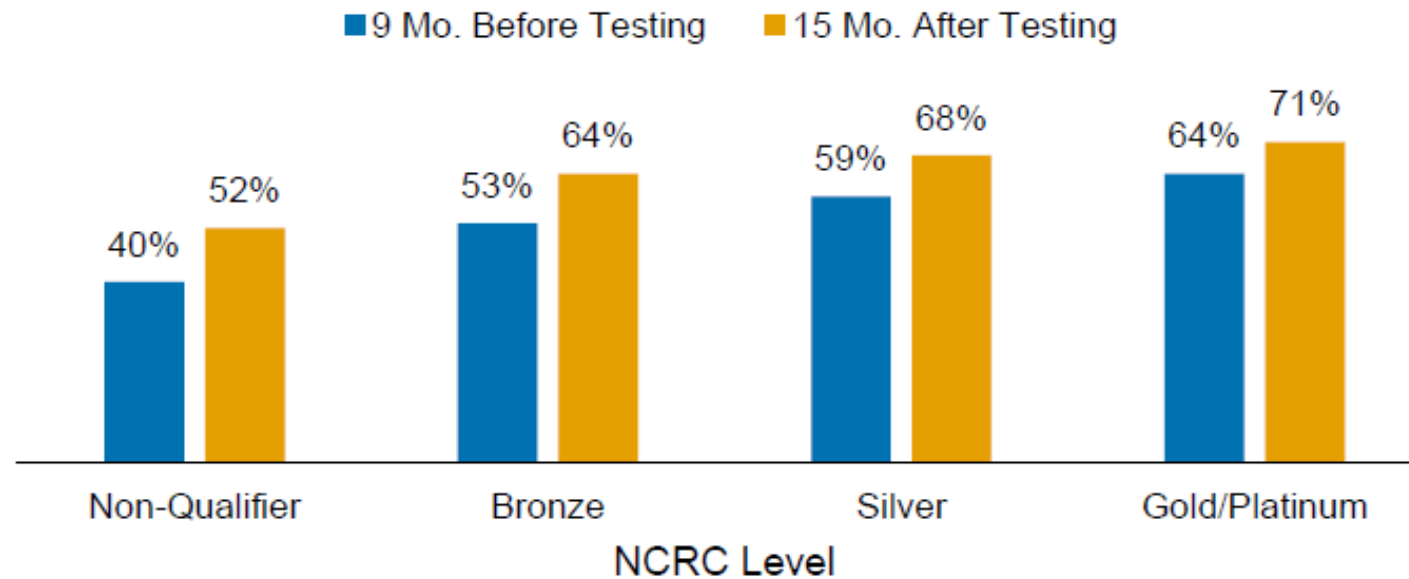
- Perkins V
- Industry recognized credentials (WIOA)

Local industry skills alignment

- A few national models, most are homegrown

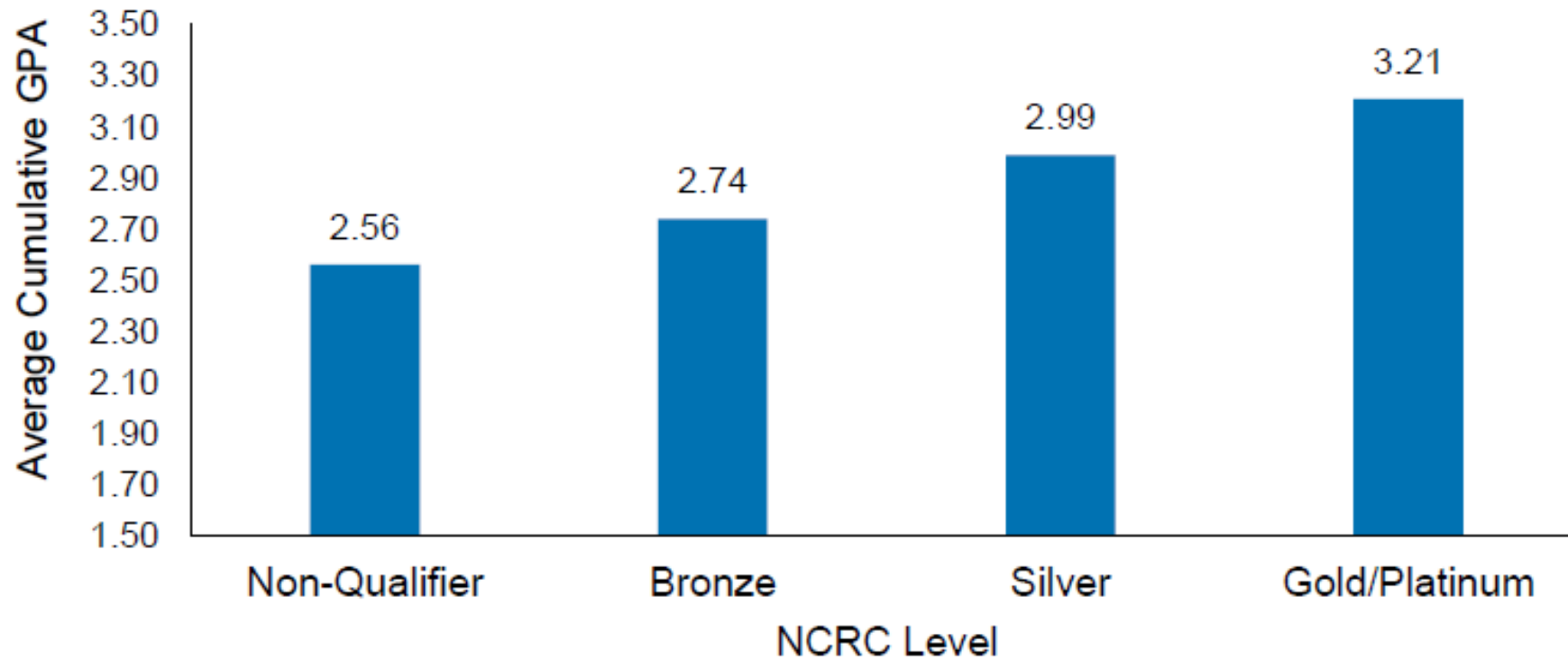
Missouri Employment Outcomes

Figure 1. Percentage with Wage Records in the Unemployment Insurance Database



Missouri Postsecondary Education Outcomes

Figure 4. Average Postsecondary Cumulative Grade Point Average



Missouri NCRC Levels: Career Readiness and College Credit Opportunities

Likely ACT National Career Readiness Certificate (NCRC) Level Based Upon ACT Composite Score

Needs Improvement-%	Bronze-%	Silver-%	Gold-%	Platinum-%
7	28	34	20	11

Foundational Skills needed ACT JobPro Database	for 20% of jobs	for 71% of jobs
---	-----------------	-----------------

65% qualify for NCRC college credit

Missouri Southern State University
and **Metropolitan Community College**
award credit.

American Council on Education
(ACE) Third-Party Quality Review
and Credit Recommendations



Platinum earns up to (6) Credit Hours
Three Credit Hours each for: Subjects:
Technical Math & Introduction to Information Literacy



Gold earns Up to (4) Credit Hours
Two Credit Hours each for Subjects: Technical Math & Introduction to Information Literacy



Silver earns Up to (2) Credit
One Credit Hour each Subjects: Technical Math & Introduction to Information Literacy

NCRC Levels: Pathways to Enhanced Job Opportunities

<p>NCRC Certificate level based on WorkKeys lowest score:</p> <ul style="list-style-type: none">• Applied Math• Graphic Literacy• Workplace Documents	<p>Score level 3</p> 	<p>Score level 4</p> 	<p>Score level 5</p> 	<p>Score level 6/7</p> 
<p>Foundational Skills needed</p> <p>ACT JobPro Database</p>	<p>for 20% of jobs</p>	<p>for 71% of jobs</p>	<p>for 93% of jobs</p>	<p>for 98% of jobs</p>

<http://jobprofiles.act.org/>

MSIP 6: Success Ready

- Measures students' readiness for next phase in educational experience
- Outputs & Inputs

Assessment	Student Weight	0	0.25	0.75	1.0	1.25
ACT 1-36	Composite Score DESE uses Superscores!	No record of participation	<17	18-21	22-25	26-36
Assessment	Student Weight	0	0.25	0.75	1.0	1.25
ACT WorkKeys	NCRC (3 Tests) <ul style="list-style-type: none"> • Applied Math • Graphic Literacy • Workplace Documents 	No record of participation	3	4	5	6-7

The ACT and ACT WorkKeys (NCRC Assessments):
MSIP6 Reporting: Success Ready Assessment Scores Matrix

Important measures of continuous improvement! (Appendix D MSIP6 Comprehensive Guide)





Missouri and ACT WorkKeys

Partners in College and Career Success

Partner with ACT to Ensure Missouri Students are the best success story yet

<https://site.act.org/missouri-workkeys>

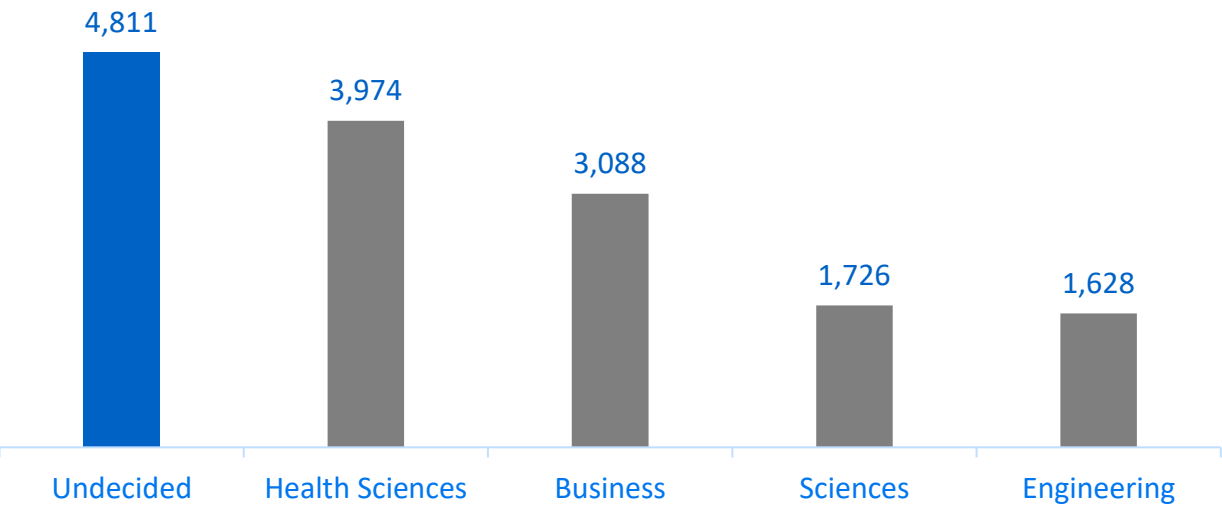
WorkKeys Valued Added Benefits and Implementation Best Practice Strategies

- WorkKeys assessments/NCRC provide students with a nationally recognized credential and digital badge of work readiness that they can **add to their career portfolio (ICAP)** and use to successfully transition to employment assisting colleges with that performance measure that can be linked with funding.
- With the NCRC, community colleges and universities can award **Credit for Prior Learning** which can assist in the transition to education/training programs as a part of dual enrollment and career navigation programs leading to **increased enrollments**.
- **Aligning** high school and college **career/technical programs with occupational profile data** serves **to provide benchmarks for academic program quality** and plans for continuous improvement based on industry standards set by employers and subject matter experts.
- Employer based advisory committees strongly support this model as it provides **data-based evidence that students are work ready based on employer input which strengthens the partnership** between employers and the high school/college.
- Implementing the WorkKeys system, including the assessments, NCRC, and **curriculum can strengthen and improve the pass rates for program specific capstone assessments** leading to Industry Recognized Credentials and having a **positive impact on individual program accreditation**.
- College Accreditation Review Teams have cited the implementation of WorkKeys as a **measure of assessing and enhancing general education outcomes** as a best practice in college institutional assessment plan reviews.

Pathways to Purpose: Cultivating the Education & STEM Pipelines

Responses: 23,887

Top 5 Major Aspirations

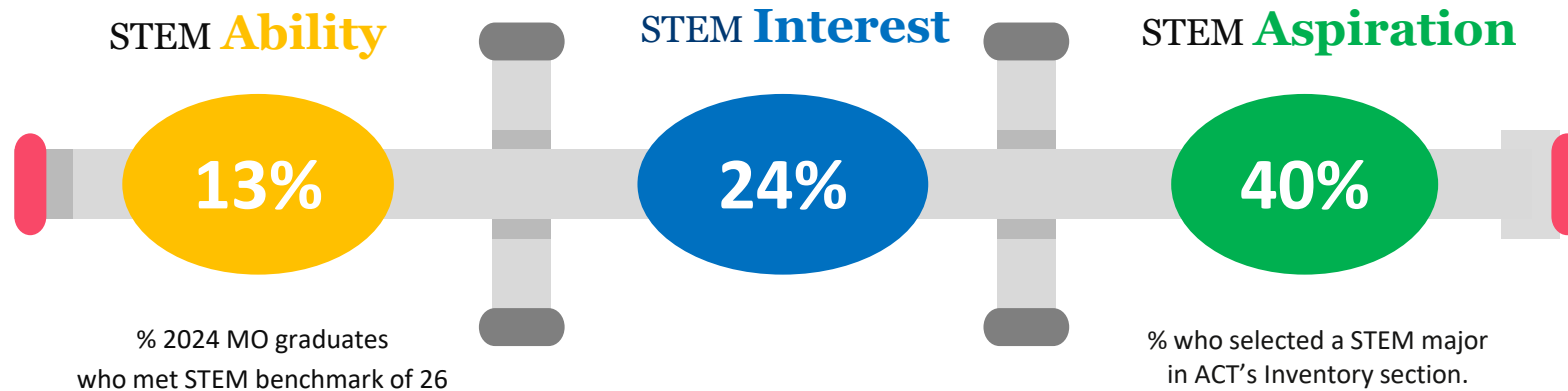


Key Takeaway:

20.1

Avg Composite Score for **Undecided.**
Potential for the STEM & Education pipelines.

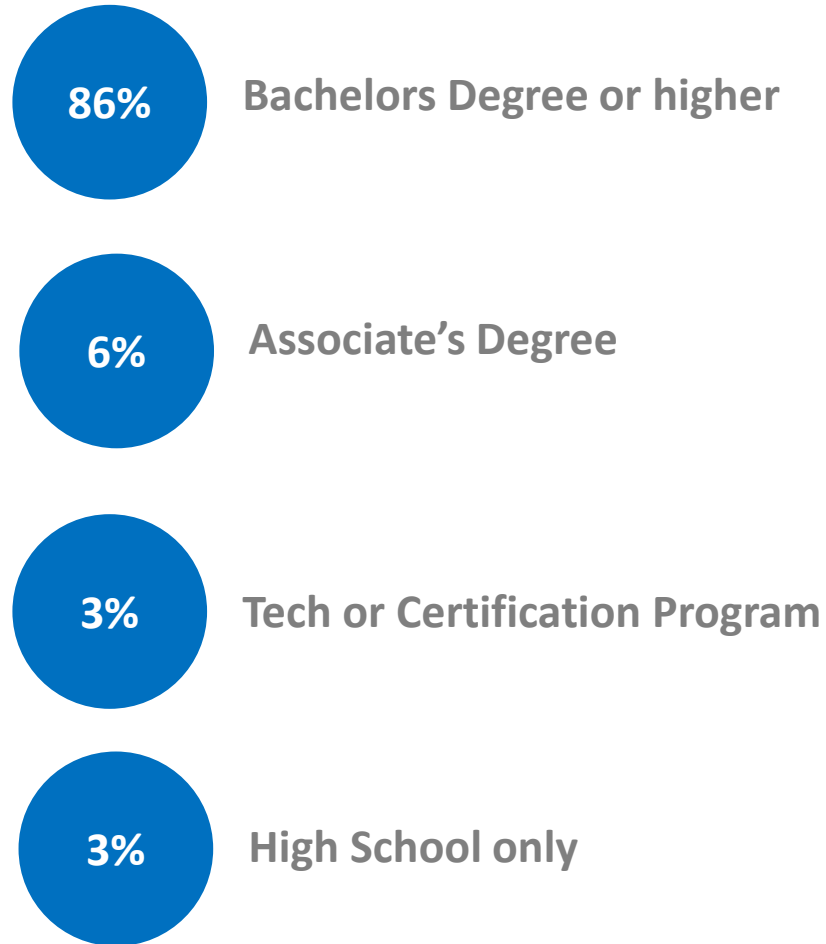
Optimizing the STEM Pipeline: Bridging Ability to Aspiration



Key Takeaway: 27% gap between STEM ability and aspiration.

Missouri Class of 2024's Educational Aspirations

Responses: 21,084

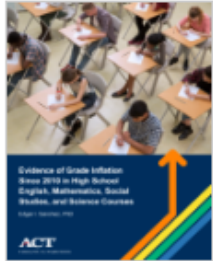


Key Takeaways:

- Career Exploration:** Encourage students to explore various career options **early**, especially since most are aiming for higher education.
- Support for Alternative Pathways:** Although a smaller percentage of students are interested in **Associate's degrees** and **certification programs**, **career counseling** should include information on technical schools, community colleges, and certification programs that **align with labor market demands**.

ACT Research & Data Tools

ACT: Research Driven!



Featured

Aug 30, 2023

Evidence of Grade Inflation Since 2010 in High School English, Mathematics, Social Studies, and Science Courses

This study reveals evidence of grade inflation in English, mathematics, social studies, and science.

Expert: Edgar I Sanchez
Size: 2.2MB | Pages: 65



Featured

Jun 29, 2023

School-Day Administration of the ACT Test: Removing Barriers and Opening Doors for All Students

This brief describes six evidence-backed benefits of school-day ACT testing.

Expert: Jeff Allen, Ty Cruce, Colin Dingler
Size: 297.9KB | Pages: 9

Student Success Plans Supported by ACT Research

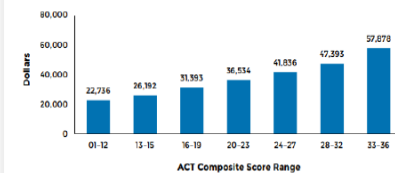
ACT Research | Data Byte | October 2021

The Importance of Graduating from High School College and Career Ready: The Positive Relationship between ACT Score and Future Earnings

Krista D. Mattern, PhD, and Ty M. Cruce, PhD

Previous research has linked higher levels of academic preparation as measured by the ACT[®] to postsecondary success, such as earning higher college grades and completing a college degree in a timely manner.¹ This ACT Data Byte extends these findings, illustrating the positive relationship between graduating from high school college and career ready and future annual earnings. Data from a collaboration between ACT and Opportunity Insights—a non-profit organization located at Harvard University—show that the annual earnings individuals' report during their late 20s are positively related to their academic achievement level measured during high school.²

Figure 1. Mean Annual Earnings (in 2016 dollars) at Age 28 by ACT Composite Score Range



Notes: Based on over 9.1 million ACT-tested individuals who were born between 1979 and 1987. Mean annual earnings are calculated using all ACT-tested individuals, including those individuals (9%) who reported no positive income at the age of 28. The positive relationship between ACT Composite score range and mean annual earnings remains when the sample is limited to only those individuals who reported positive income at the age of 28.

ACT Research | Data Byte | October 2021

Figure 1 provides the mean annual earnings of ACT-tested individuals at the age of 28 by the range of their ACT Composite score. As seen in the figure, annual earnings increase as test scores increase. Compared with the average annual earnings of individuals who scored between 1 and 12 on the ACT, individuals who scored between 28 and 32 had mean earnings that were over twice as high, whereas individuals who scored between 33 and 36 had mean earnings that were more than 2.5 times higher. The findings underscore the importance of students acquiring the foundational knowledge and skills taught during primary and secondary schooling for future education and workplace success.

Notes

1. Refer to the ACT Technical Manual for complete information on the validity of ACT scores for predicting postsecondary outcomes. ACT. (2020). *The ACT technical manual*. Iowa City, IA: ACT.
2. These statistics were calculated as part of the collaboration between Opportunity Insights and ACT on the project Income Segregation and Intergenerational Mobility Across Colleges in the United States. Annual earnings at age 28 are the individual's total pre-tax earnings in 2016 dollars. For a single filer, individual earnings are defined as the sum of the individual's W-2 wage earnings and net self-employment income, if positive (i.e., net of one-half of the self-employment tax). For a joint filer, individual earnings are defined as the sum of the individual's W-2 wage earnings, net self-employment income, if positive, and half of the additional wage earnings relative to the sum of their spouse's W-2 wage earnings. For a non-filer, individual earnings are defined as the sum of wage earnings reported on the individual's W-2 forms.

Take Away:
Students must acquire foundational knowledge and skills taught in K-12 for future education and workplace success!

www.act.org

Search: ACT Research Publications

<https://www.act.org/content/act/en/research/reports/act-publications.html?>

Six Things You Should Know About ACT Score Gains from Retesting

Brief findings: 2023 ACT-tested graduating cohort – 35% tested once, 20.6% twice, 8.3% three, 3.6% four, 2.7% five or more

- Avg score gains are modest (about 1 score point)
- Score gains increase with more time between tests
- Higher achieving students tend to have larger score gains
- Differences in score games across demographic groups are small, but consistent with long-standing achievement gaps
- ACT scores tend to increase with additional retesting, but there are diminishing returns
- ACT Superscore gains are substantially larger than ACT Composite score gains

Table 1. Number of Times Tested, by Student Demographic Characteristics

Demographic Characteristic	Number of Times Tested (%)				
	1	2	3	4	5+
Family Income					
<\$36,000	67	22	7	3	2
\$36,000–\$60,000	62	23	9	4	3
\$60,000–\$100,000	57	24	10	5	4
>\$100,000	47	27	14	6	5
Missing	75	16	5	2	2
Race/ethnicity					
African American	64	22	8	4	3
Native American	71	18	6	2	2
White	58	23	10	5	3
Hispanic	76	16	5	2	1
Asian	57	23	11	5	4
Native Hawaiian/OPI	81	13	4	1	1
Two or more races	67	20	8	3	2
Prefer not to respond	62	21	9	4	3
Missing	91	8	1	<1	<1

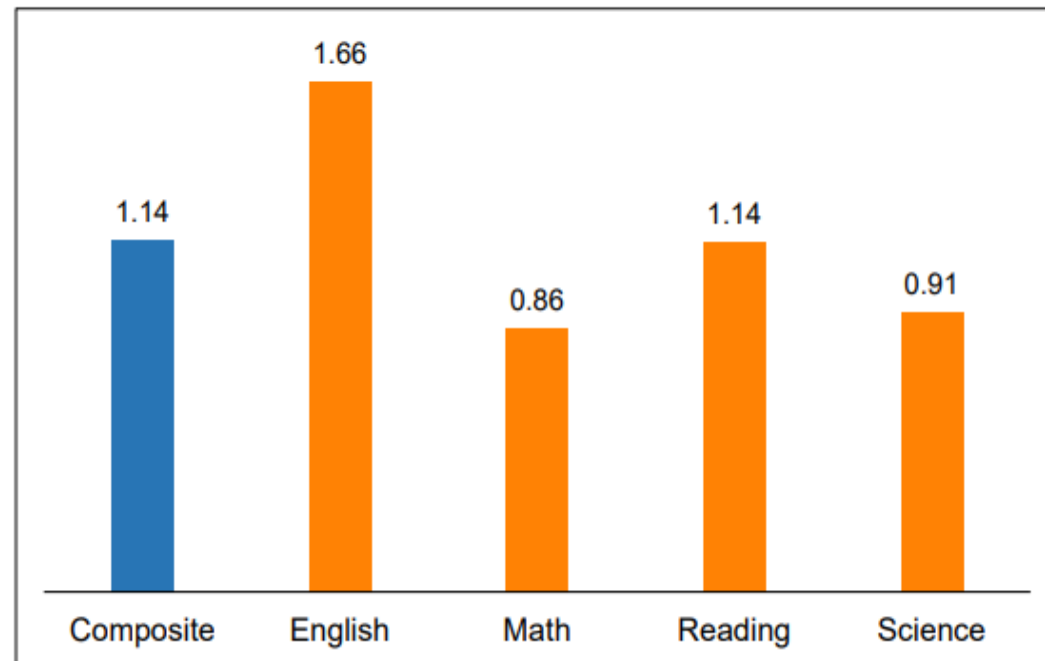
Table 2. Mean Academic Achievement, by Number of Times Tested

Achievement Measure	Number of Times Tested				
	1	2	3	4	5+
ACT Composite score (first test)	18.4	20.9	21.9	21.6	21.1
Number of Benchmarks met (first test)	1.2	1.9	2.2	2.1	2.0
High school GPA	3.29	3.51	3.62	3.67	3.71

Average score gains are modest; Increase with more time between tests

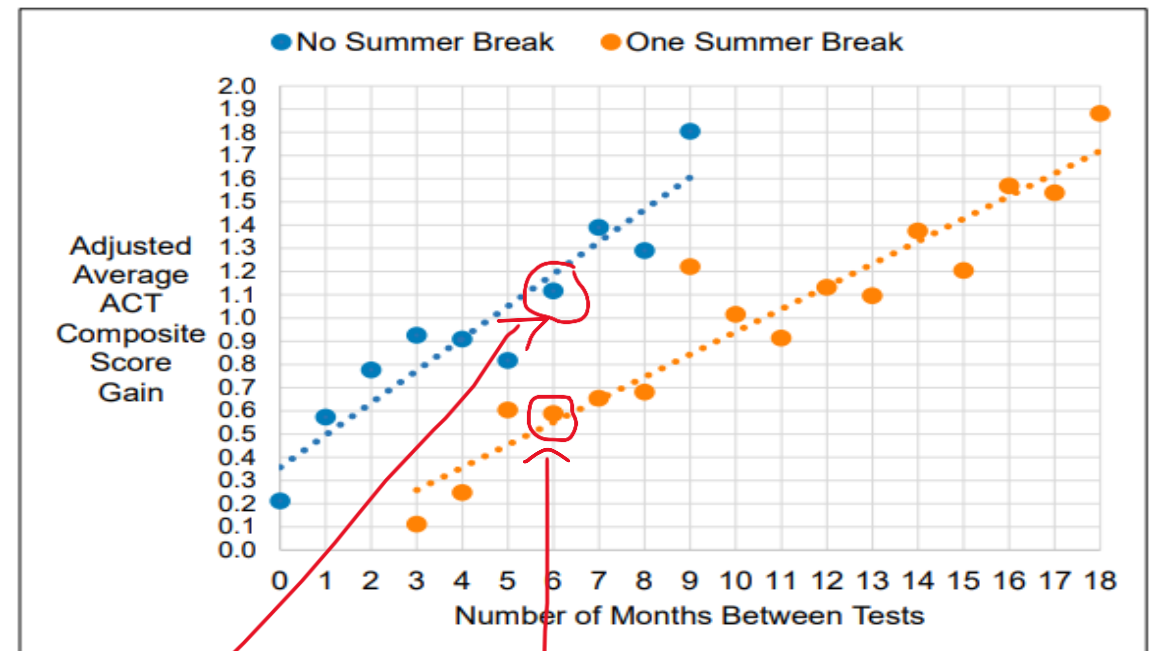
Avg time from first to last test was 8.3 months.

Figure 1. Average Gain From First to Last ACT Test, by Subject



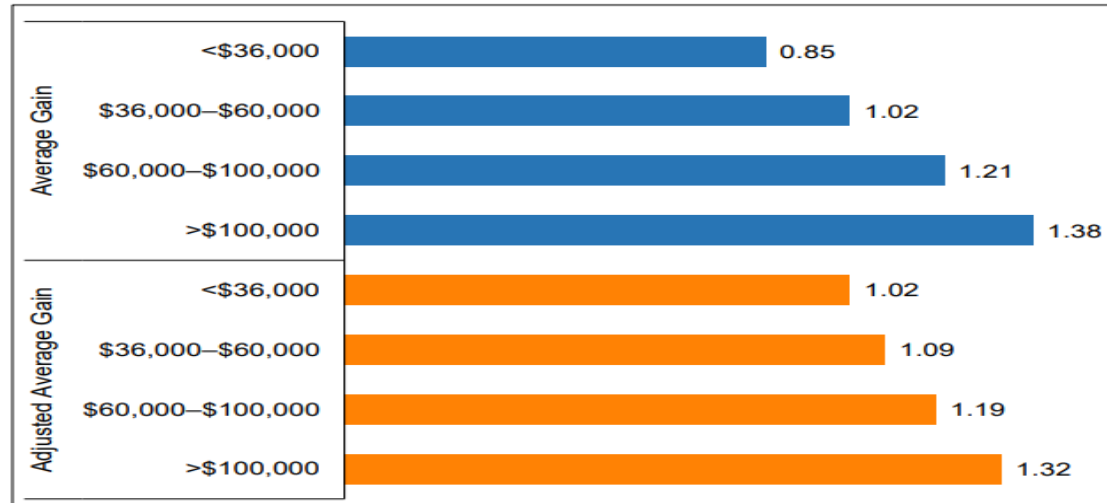
Most common scenarios: March of 11th grade to Oct of 12th grade or March to June.

Figure 2. Adjusted Average Composite Gain From First to Second ACT Test, by Number of Months Between Tests



Differences in score gains across demographic groups are small but consistent with long-standing achievement gaps

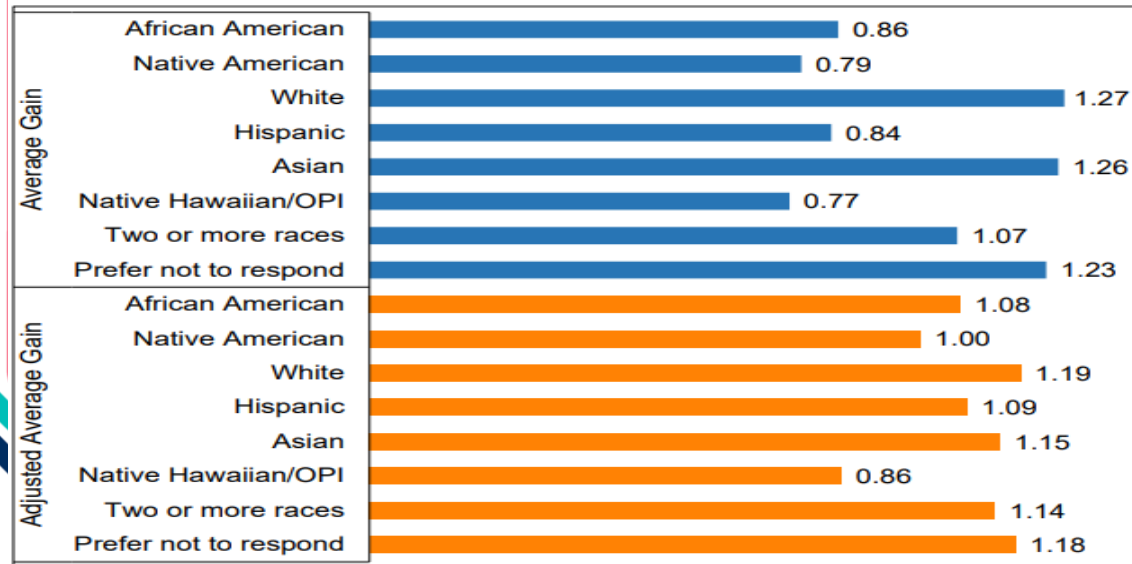
Figure 4. Average Composite Gain From First to Last ACT Test, by Family Income Level



Avg gains are lower for students with family incomes less than 36K.

Adjusted avg gains that would be expected if income groups were equal (as measured by the ACT Rigor Index)

Figure 5. Average Composite Gain From First to Last ACT Test, by Race/Ethnicity



Avg gains varied across racial/ethnic groups.

Adjustments made for differences in HS coursework, grades, time between tests, etc. are smaller, suggests that the unadjusted gains by race are partly explained by differences in income, courses, grades, time between tests, and number of tests.

Student Growth Percentiles (SGP)

- Longitudinal growth model to measure progress
- SGP describe how well students performed relative to their peers

growth_period	subject	prior_score	current_score	sgp	growth_level
Spring Grade 10 to Spring Grade 11	Science	16	16	40	2
Spring Grade 10 to Spring Grade 11	Science	16	17	51	3
Spring Grade 10 to Spring Grade 11	Science	16	18	62	3
Spring Grade 10 to Spring Grade 11	Science	16	19	72	3
Spring Grade 10 to Spring Grade 11	Science	16	20	80	4
Spring Grade 10 to Spring Grade 11	Science	16	21	87	4
Spring Grade 10 to Spring Grade 11	Science	16	22	91	4

Progress Towards the NCRC – PreACT Technical Guide

- Comprised of 79,000 scores from 11th & 12th Graders that took the ACT and all three WorkKeys assessments
- 9th-grade PreACT sample: 81,531 students who took PreACT (n = 74,862) or PreACT 8/9 (n = 6,669) in 9th grade and took the ACT test in 11th grade, 24 to 30 months after taking PreACT or PreACT 8/9.
- 10th-grade PreACT sample: 879,588 students who took PreACT in 10th grade and took the ACT test in 11th grade, 12 to 18 months after taking PreACT.

Table 5.1. Composite Score Ranges Corresponding to Predicted NCRC Levels

PreACT Grade Level	ACT NCRC Level	Intercept		Slope		50% Cut Score	
		Beta	SE	Beta	SE	Estimate	Rounded
9	Bronze	-5.769	0.112	0.616	0.008	9.37	9
	Silver	-10.307	0.086	0.736	0.006	14.00	14
	Gold	-12.987	0.092	0.717	0.005	18.10	18
	Platinum	-15.610	0.128	0.695	0.006	22.45	22
10	Bronze	-6.153	0.032	0.604	0.002	10.19	10
	Silver	-11.604	0.027	0.752	0.002	15.43	15
	Gold	-15.306	0.034	0.761	0.002	20.12	20
	Platinum	-18.695	0.054	0.754	0.002	24.80	25

Table 5.2. Composite Score Ranges Corresponding to Predicted NCRC Levels

Predicted NCRC Level	PreACT Composite Score Range		ACT Composite Score Range
	Grade 9	Grade 10	
Below Bronze	1–8	1–9	1–12
Bronze	9–13	10–14	13–16
Silver	14–17	15–19	17–21
Gold	18–21	20–24	22–26
Platinum	22–35	25–35	27–36

Note. For more information on the Progress Toward the ACT National Career Readiness Certificate Indicator, visit www.act.org/NCRC-indicator.

How Standardized Tests Make College Admissions Fairer

Brief findings:

- Standardize tests make the college admissions process fairer for students
- Setting an objective standard
- Equity – ensuring all students can take the ACT
- Benefits to college and university

Full Brief [How Standardized Tests Make College Admissions Fairer](#)

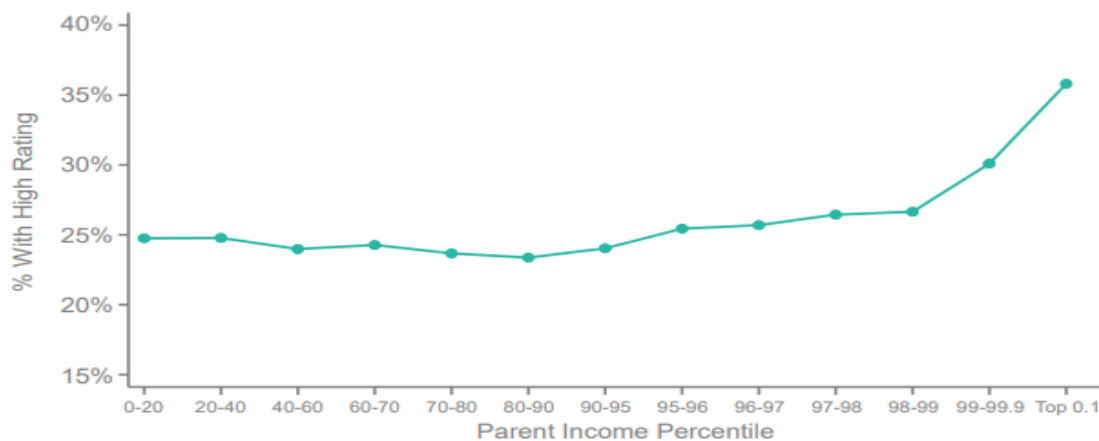


Figure 1. Non-academic metrics used by admissions offices systematically advantage students from families in the top 1% of the income distribution.

Source: [Opportunity Insights](#)

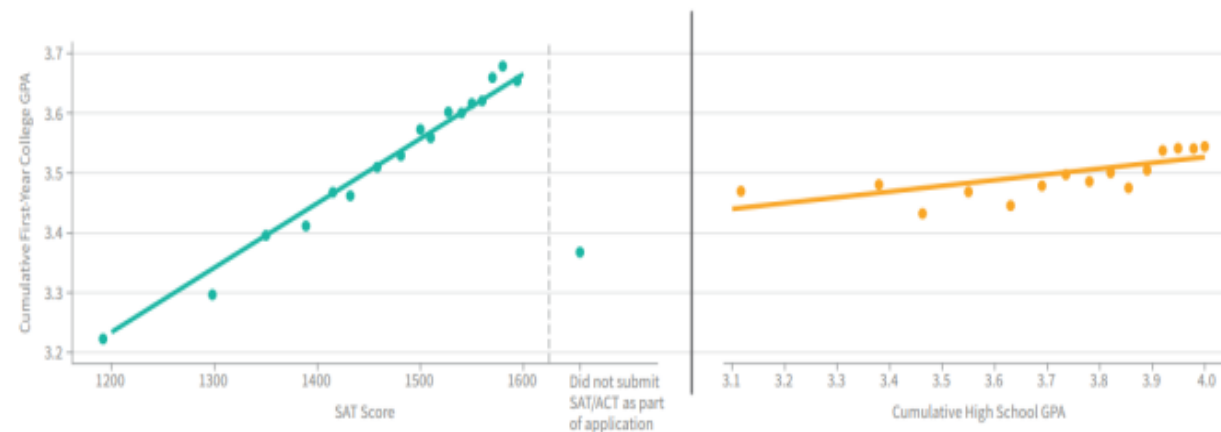


Figure 2. Higher SAT/ACT scores are associated with higher college GPAs but higher high school GPAs are not.

Source: [Opportunity Insights](#)

Taking the ACT Online Vs Paper Pencil

Brief findings:

- Research indicates students testing online tend to answer more items correctly compared to paper (particularly in English & Reading)
- Misadministration tends to be limited more by online testing
- Supply chain

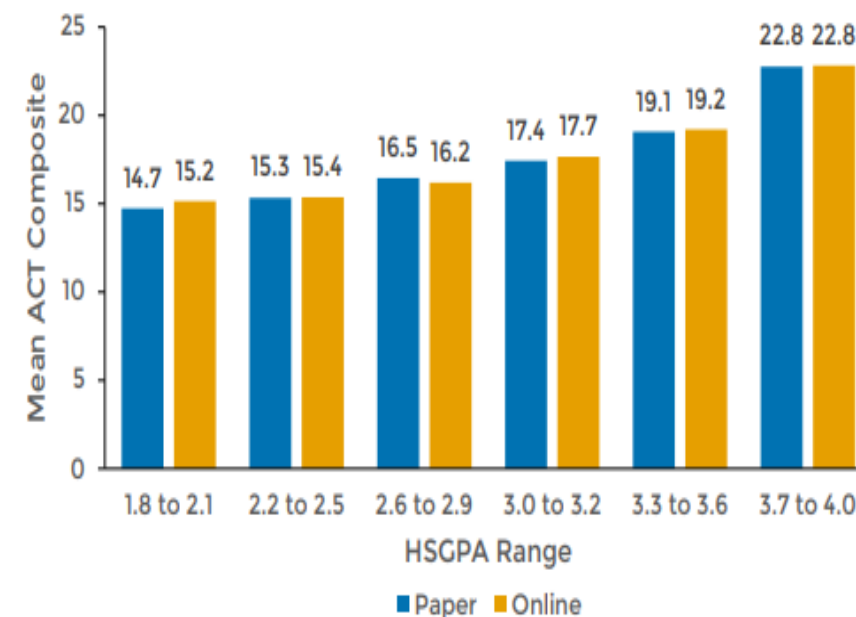
Full Brief [ACT Research & Policy Technical Brief Dec 2020](#)

Table 1. Mean 1–36 Scale Scores for ACT Tests Administered on Paper and Online

Score	Paper (<i>n</i> = 8,245)		Online (<i>n</i> = 8,328)		<i>t</i>	<i>p</i>	<i>d</i>
	Mean	SD	Mean	SD			
English	19.2	6.0	19.3	6.0	0.385	.700	0.006
Mathematics	19.7	4.9	19.8	4.9	0.777	.437	0.012
Reading	20.8	6.5	20.8	6.4	0.003	.997	0.000
Science	20.3	5.1	20.3	5.1	0.383	.702	0.006
Composite	20.1	5.1	20.2	5.1	0.463	.643	0.007

Note. *t* is the *t*-test statistic, *p* is the associated *p*-value, and *d* is the mean difference in standard deviation units (effect size).

Figure 1. Mean ACT Composite Scores by HSGPA Range





Data and Visualizations

ACT Research

These tools can be used to:

- Explore ACT data.
- Show relationships between education, skills, and occupational wages.
- View National and State data.
- View the data included in the ACT Profile and ACT Condition of College and Career Readiness reports.

[Explore ACT Datasets](#)

ACT Research Briefs



Student Perceptions of the Benefits of Taking the ACT in a Test-Optional Environment



Evidence of Grade Inflation Since 2010 in High School Courses



Changes in Predictive Validity of High School GPA and ACT Composite Score After the COVID-19 Pandemic



Has the Relationship Between College Readiness Measures and Developmental Course Placement Changed in Recent Years?

ACTIVITY # 3 (15 min)

Refer to Activity #3 on the Resources PPT. Explore ACT's various data sets and visualizations. Pick something that interests you; play with the tools, peruse the resources, lets have a conversation about the information.



College Preparedness

Information, resources, & game plans!

Test Score Submission Policies Still Vary Widely

Test Submission Policies	
Required	Applicants must send standardized test scores.
Conditional	Applicants are required to send standardized test scores UNLESS minimal conditions are met, such as GPA or class rank.
Recommended	Applicants are encouraged to send standardized test scores, but they are not required.
Flexible	Applicants do not need to send standardized test scores but must send something else in their place (e.g., send AP results, write an essay, do an interview).
Optional	Applicants may choose to send scores, and scores are considered if sent, but students are not penalized if not sent.
Blind	Scores will not be considered even if sent.

Test Score Are Still Required in Certain Cases

Test-optional schools may require test scores when students:

Apply to certain programs (e.g., Nursing, Engineering, Honors).

Apply for certain scholarships or financial aid.

Have been homeschooled.

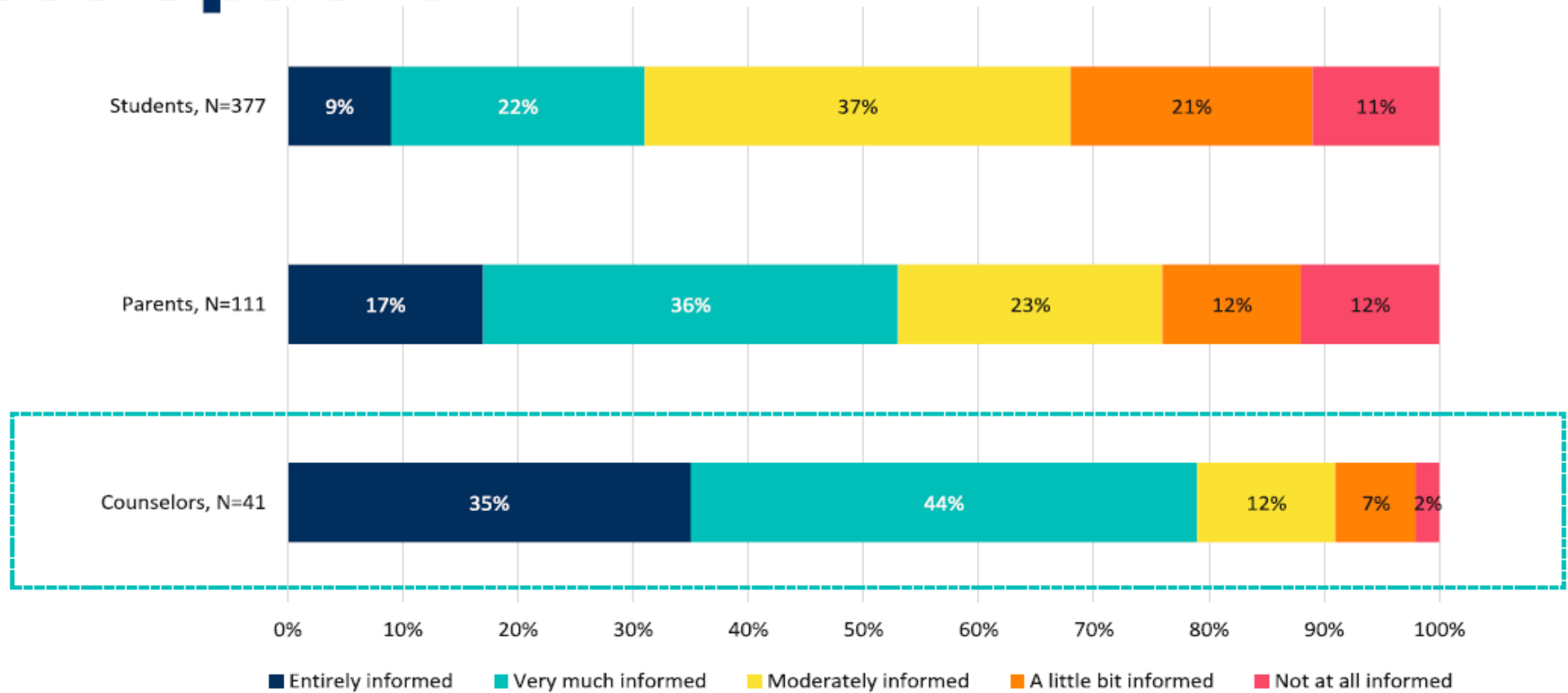
Have graduated from a non-accredited high school.

Historical Context

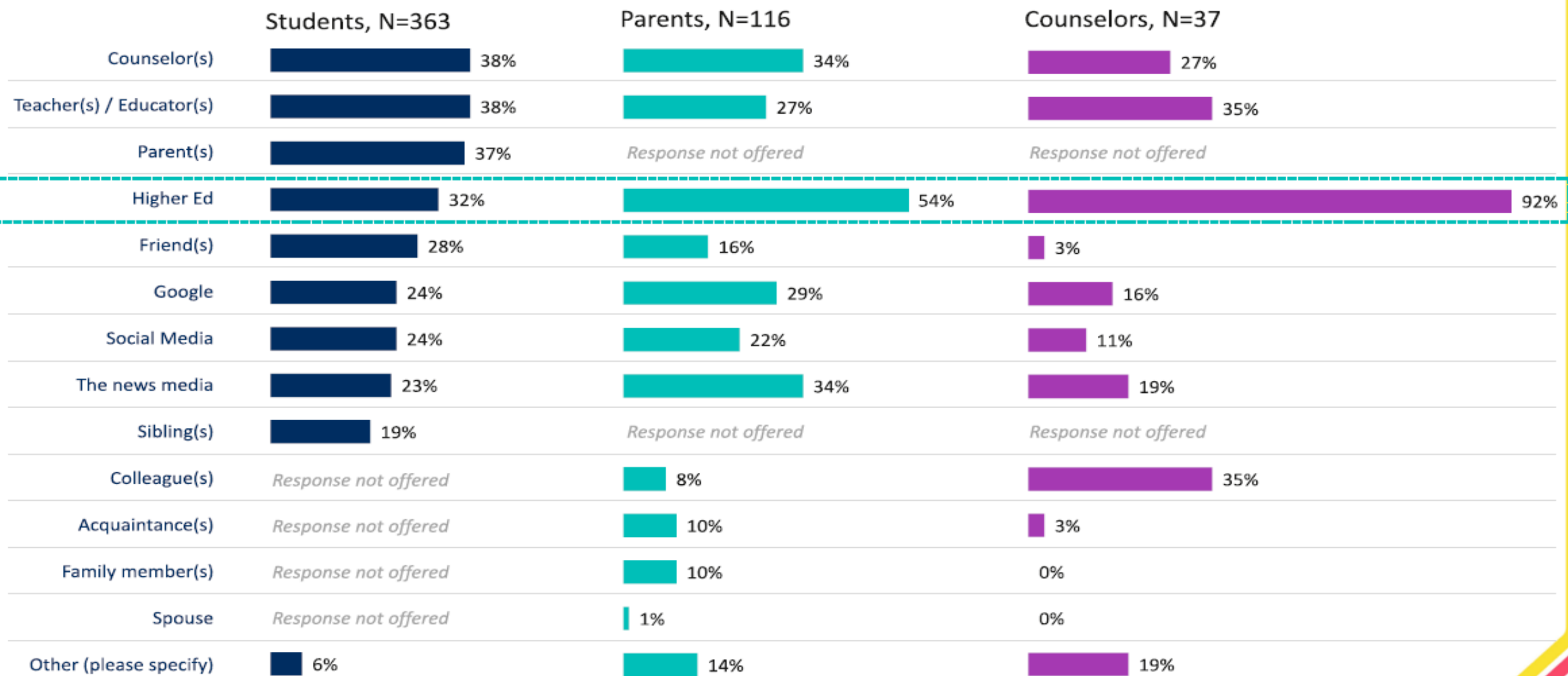
1. Before COVID more institutions started becoming ***Test Optional***
2. ***States & Districts*** continued to utilize standardized tests.
3. Test optional in ***Higher Ed*** has meant more applicants but fewer data points to make fair and rigorous decisions.
4. Students feel anxiety over ***Test Optional***.
5. Learners and families left with difficult task of not only understanding testing policies on their own but foreseeing impact on college readiness and academic success.

Survey of Test Optional Perceptions (Perceptions of Test Optional: Students who registered for Feb 2024 National ACT, parents & HS Counselors)

Perceived Level of Knowledge About Test Optional

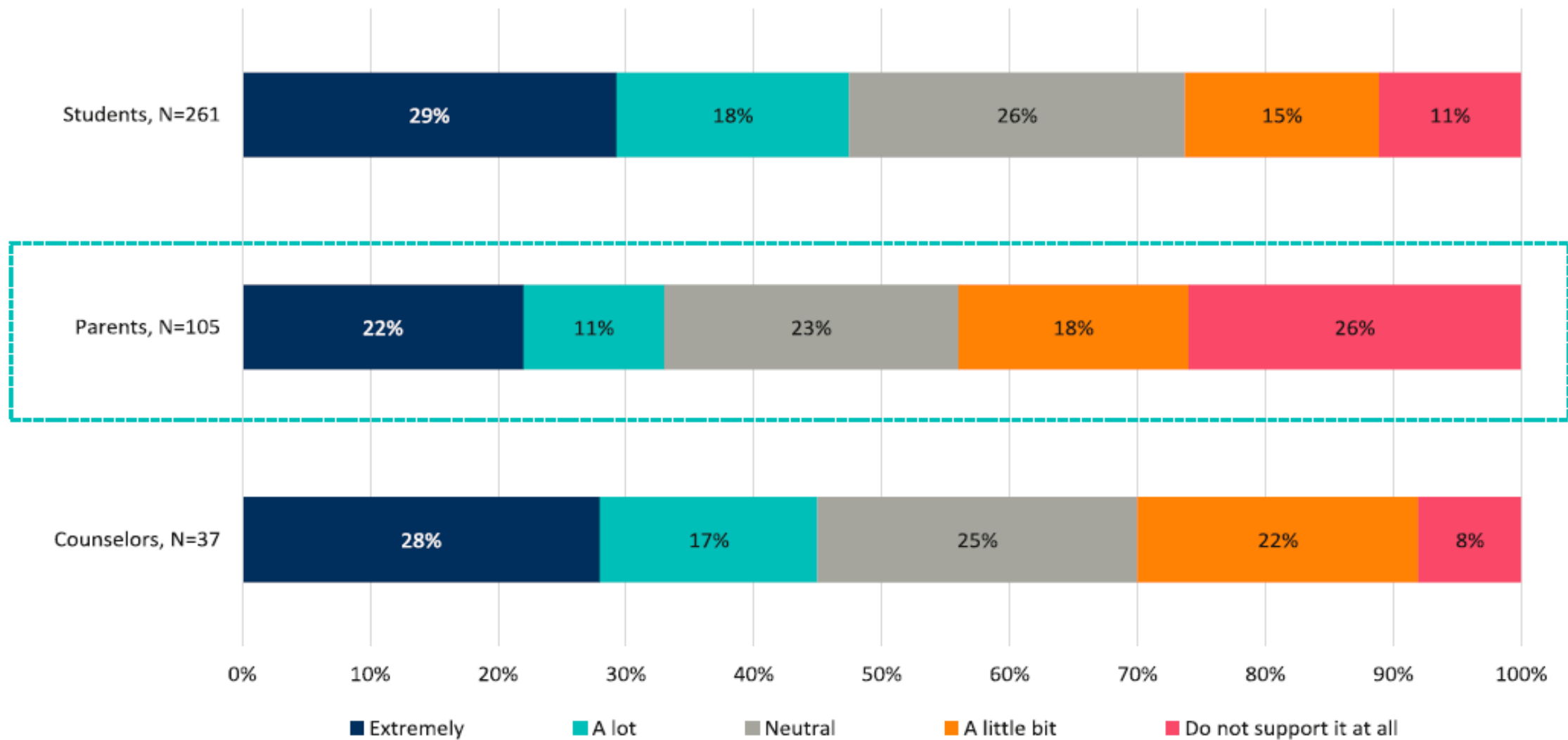


Sources of Test Optional Information



Q: How did you first learn about test optional? *Select all that apply* Note: N counts may vary due to question skipping patterns and participant survey drop out

Level of Support for Test Optional



What Does the Market Say?

The Atlantic

≡ Bloomberg

Stanford Follows Harvard, Yale in Reinstating Standardized Tests

SAT and ACT scores do strongly correlate with parental income levels. But when colleges take tests off the table, the remaining measures used to assess applicants are even MORE biased.

the Southerner

Test-optional policy detrimental to students, colleges must reconsider

Another problem with test-optional policies is that schools are not able to accurately predict a student's academic abilities due to increased grade inflation in high school. Standardized tests work as a baseline to show a fraction of a student's academic capabilities. An MIT study showed that once MIT re-instituted its test requirement, its ability to accurately predict the success of future MIT students increased; it reduced barriers to college readiness and helped identify students who attended high schools with less challenging coursework, who still were academically inclined.

PBS
NEWS
HOUR

Miguel Wasielewski:

People have in their head things like 1500, 1600 SAT scores. And so a student that doesn't have that level and maybe has like a 1200 SAT may say, you know what, I'm not going to submit that information to the university.

But then when we go in and contextually evaluate that student, and we see that they're in the 99th percentile of their high school with that score, that's a very meaningful figure.

The Atlantic

The Worst Way to Do College Admissions

Making standardized-test scores optional has harmed the disadvantaged applicants it was intended to help.

The Washington Times

America's Newspaper

Standardized tests find new favor with admissions officers, despite critics

Sources: [Bloomberg, 2024](#); [The Atlantic, 2024](#); [The Washington Times, 2024](#); [The Southerner, 2024](#); [PBS News Hour, 2024](#)

GPA and Retention

1. Data sourced from UM System
2. May be difficult to shift away from requiring assessments
3. “Enrollment Cliff”
4. Students aren’t eligible for top scholarships
5. Test optional = lower GPA & Retention Rates
6. Data sourced from UM system

Admission to S&T, Cont’d

Cohort Success Rate – FTC US Admits

Fall Term Cohort	1 st Year Retention		2 nd Year Retention		3 rd Year Retention	
	Regular	Test Optional	Regular	Test Optional	Regular	Test Optional
2021	87%	79%	79%	68%	76%	61%
2022	86%	85%	79%	77%	--	--
2023	88%	80%	--	--	--	--



Missouri University of Science and Technology

OPEN – ASARED – INFO – 1-17

December 3, 2024

UM System Curators / UM System Curators

For Missouri University of Science and Technology students, retention rates for test-optional students consistently lag those for students who take standardized exams.

Student Success is Comparable

	Cohort 1 FS21	Cohort 2 FS22	Cohort 3 FS23
Regular - 1st yr retention	89%	92%	93%
Test Optional - 1st yr retention	86%	90%	92%
Regular - 1st yr GPA	3.30	3.36	3.35
Test Optional - 1st yr GPA	3.10	3.10	3.15

OPEN – ASARED – INFO – 1-9

December 3, 2024



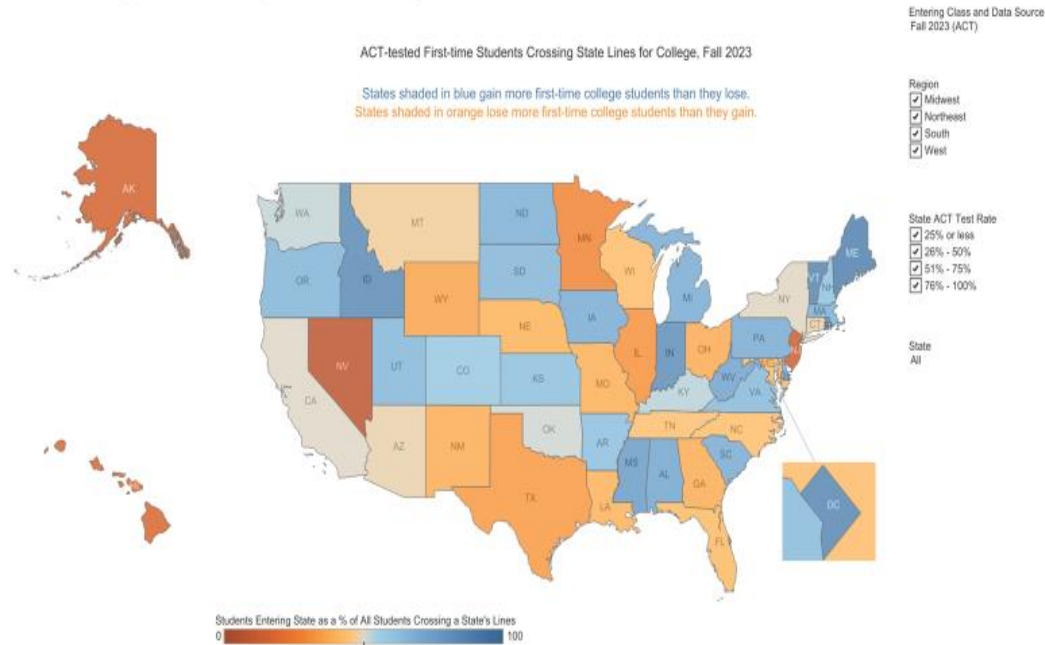
University of Missouri

UM System Curators / UM System Curators

Each of the three cohorts of University of Missouri-Columbia students admitted under the test-optional policy has had a lower GPA and retention rate than students who took standardized tests.

Missouri: 25% of ACT-Tested First Time Students Exiting MO for College

50 State Comparison of College Student Mobility



Missouri: ACT-tested First-time Students, Fall 2023

Students entering the state for college: **4,815**

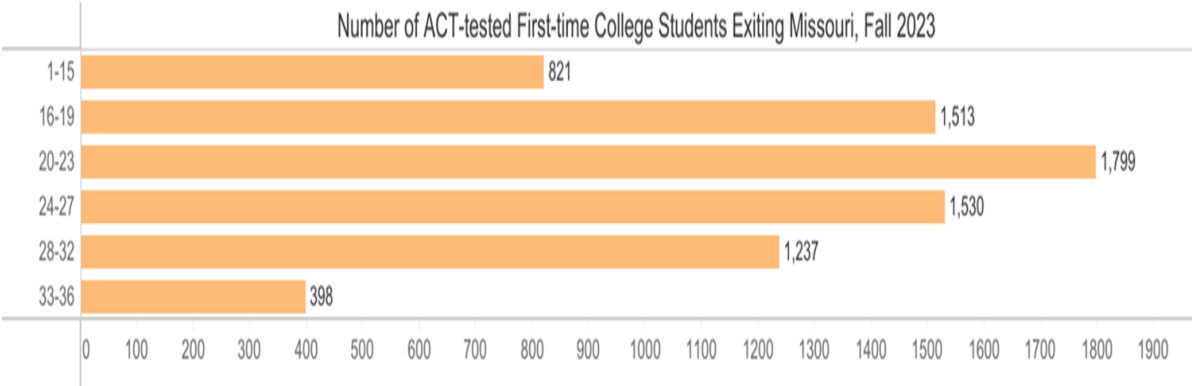
Students exiting the state for college: **7,298**

Net number of students crossing state lines for college: **-2,483**

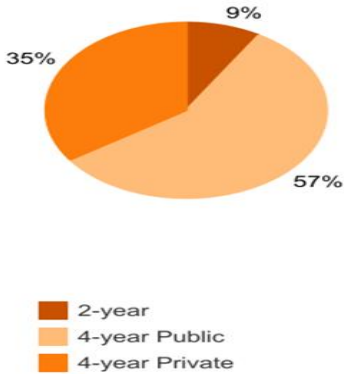
Students entering state as a % of all students crossing state lines for college: **40%**

Percent ACT-tested in the state: **66%**

Characteristics of Exiting MO Students



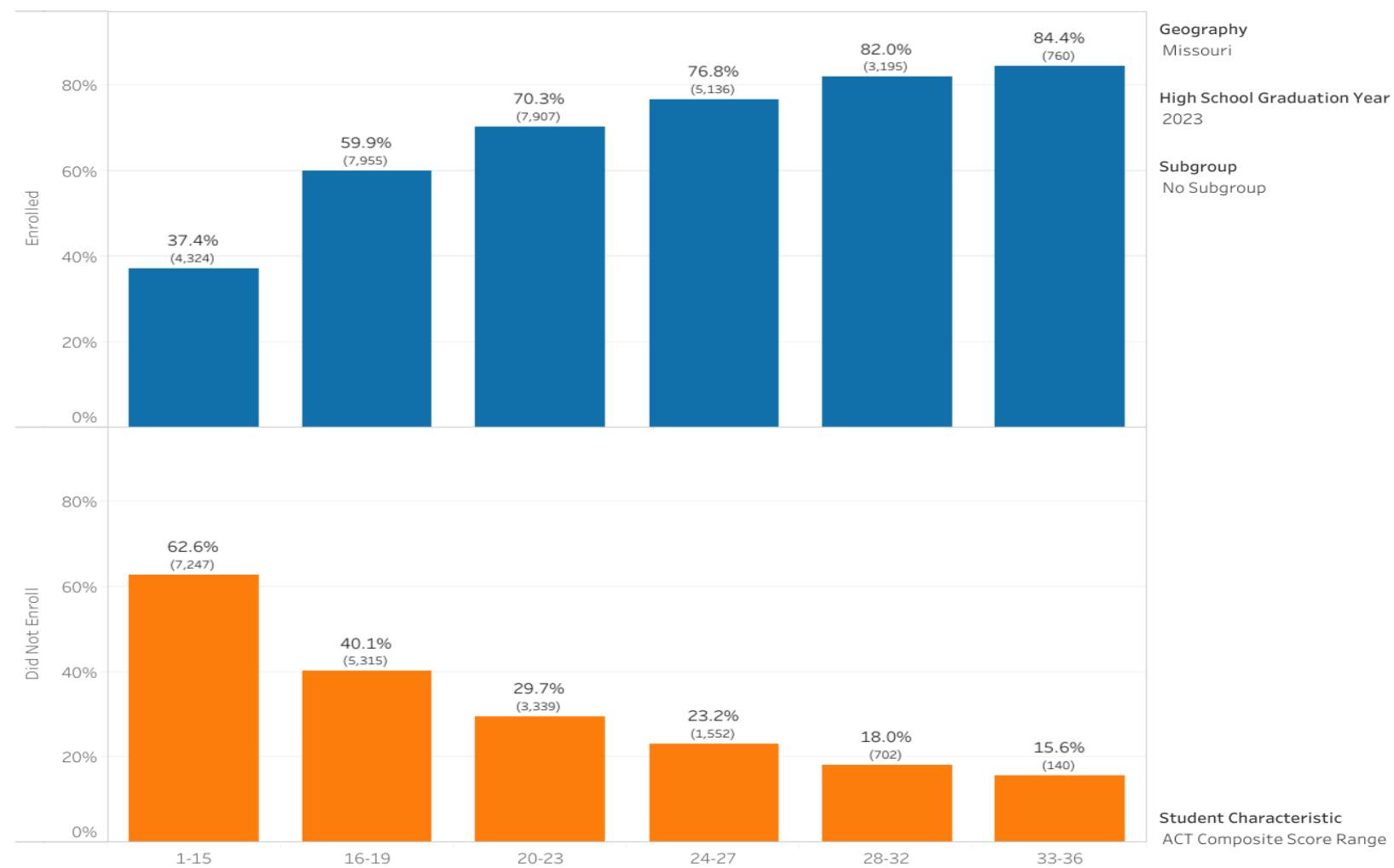
ACT-tested First-time Students
Exiting Missouri
by College Type Attended, Fall 2023



	Count	ACT
2-year	630	18
4-year Public	4,150	23
4-year Private	2,518	24
Grand Total	7,298	23

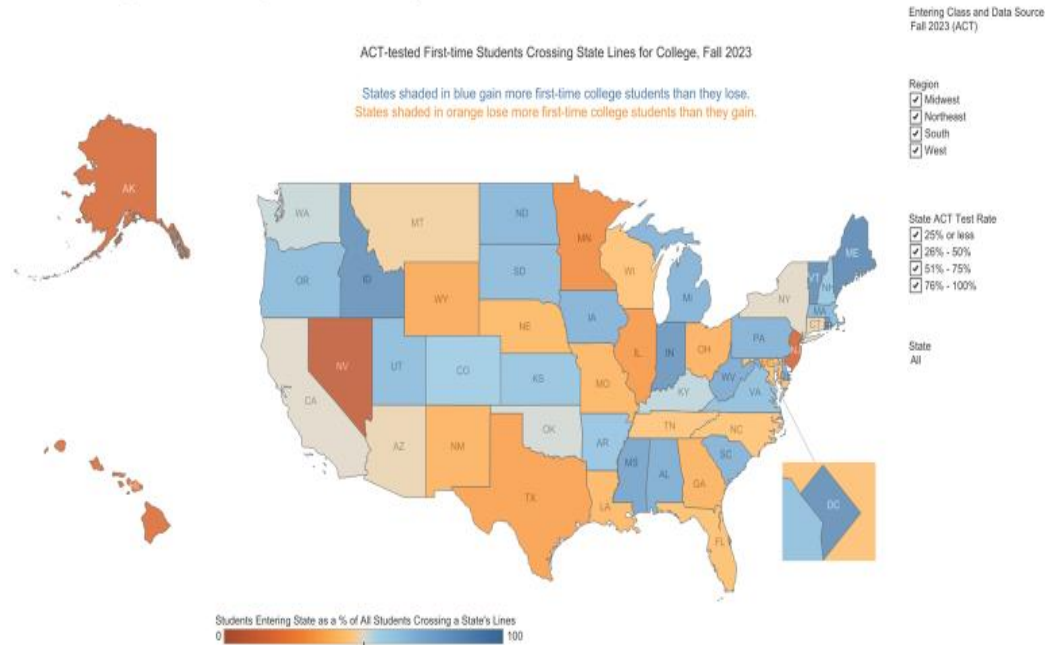
College Enrollment

How many students enroll in college directly after high school?



Missouri: 25% of ACT-Tested First Time Students Exiting MO for College

50 State Comparison of College Student Mobility



Missouri: ACT-tested First-time Students, Fall 2023

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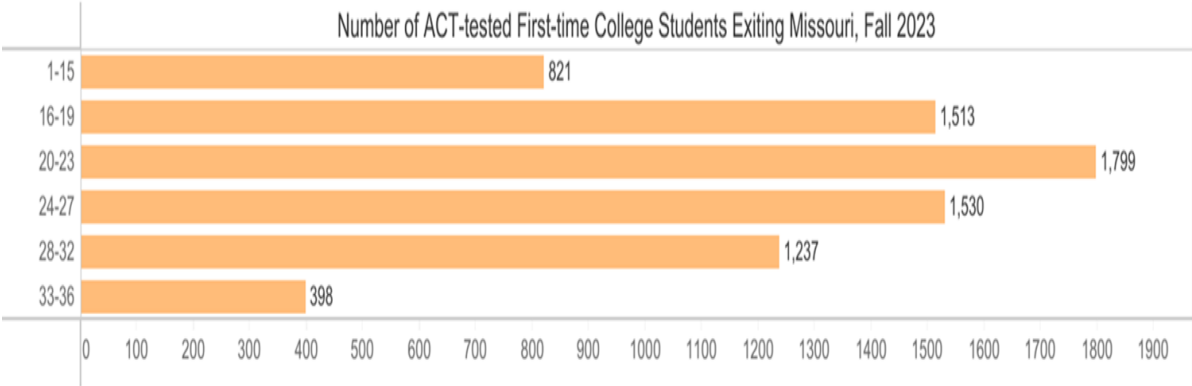
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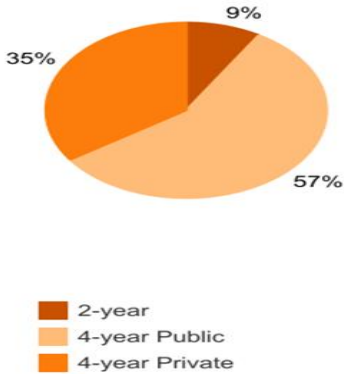
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Characteristics of Exiting MO Students



ACT-tested First-time Students
Exiting Missouri
by College Type Attended, Fall 2023



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2-year	630	18
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4-year Private	2,518	24
Grand Total	7,298	23

Table 4.3. Students' Score Report Preferences at Time of Testing

Name	State	Number of Students			Percent of Students in College Readiness Standards Ranges						
		Total	1st Choice	2nd-6th Choice	01-12	13-15	16-19	20-23	24-27	28-32	33-36
UNIV OF MISSOURI-COLUMBIA	MO	4,142	1,975	2,167	1	6	21	30	23	16	3
MISSOURI STATE UNIVERSITY	MO	3,181	1,288	1,893	1	8	27	32	20	10	1
UNIV OF MISSOURI-KANSAS CITY	MO	1,178	407	771	2	8	24	28	23	13	2
UNIV OF CENTRAL MISSOURI	MO	1,167	418	749	1	12	30	30	18	7	1
MISSOURI UNIV OF SCI AND TECH	MO	1,030	463	567	0	2	9	21	32	28	8
SOUTHEAST MISSOURI ST UNIV	MO	1,000	365	635	2	13	34	27	17	7	1
NORTHWEST MO STATE UNIV	MO	941	355	586	1	11	32	34	15	6	0
STATE TECH COLLEGE MISSOURI	MO	614	407	207	4	27	36	22	9	2	0
TRUMAN STATE UNIV	MO	610	199	411	1	6	16	28	28	17	3
WASHINGTON UNIVERSITY	MO	595	180	415	1	3	11	19	21	30	14
UNIVERSITY OF KANSAS	KS	590	153	437	0	5	17	34	27	14	2
OZARKS TECHNICAL CC	MO	552	241	311	4	20	38	25	9	4	0
UNIV OF ARKANSAS-FAYETTEVILLE	AR	542	201	341	0	4	25	33	26	9	3
LINDENWOOD UNIVERSITY	MO	537	158	379	1	11	25	31	20	11	1
MISSOURI SOUTHERN ST U	MO	526	188	338	2	13	36	29	13	7	1
METRO CC KANSAS CITY	MO	506	263	243	4	19	37	26	10	3	0
KANSAS STATE UNIVERSITY	KS	453	117	336	1	4	23	30	25	15	2
SAINT LOUIS UNIVERSITY	MO	448	96	352	1	7	17	25	25	20	4
UNIV OF MISSOURI-ST LOUIS	MO	446	71	375	1	9	24	27	25	10	4
DRURY UNIV	MO	434	106	328	1	8	25	32	20	11	2
COLLEGE OF THE OZARKS	MO	403	201	202	1	12	32	31	19	6	1
MISSOURI WESTERN STATE U	MO	388	128	260	3	19	34	27	13	3	1
STATE FAIR COMM COLL	MO	375	193	182	4	26	37	22	11	1	0
MARYVILLE UNIV OF ST LOUIS	MO	373	112	261	2	11	23	29	23	11	2
MINERAL AREA COLLEGE	MO	334	198	136	2	24	39	22	9	4	0
CROWDER COLLEGE	MO	322	184	138	3	22	41	23	9	2	0
COLUMBIA COLLEGE	MO	254	86	168	5	13	36	26	15	6	1
ST CHARLES COMMUNITY COLLEGE	MO	241	129	112	4	14	30	27	17	7	1
JEFFERSON COLLEGE	MO	234	130	104	4	21	37	25	9	4	0
MOBERLY AREA COMMUNITY COLLEGE	MO	231	106	125	6	22	37	20	12	3	0
All Other Institutions		12,445	3,704	8,741	2	11	24	26	18	15	5
Total		35,092	12,822	22,270	2	10	25	27	19	13	3

SCENARIOS & SHARE OUTS!

Scenario #1

Maria is a high school senior, preparing to graduate and go to college. Her counselor, Mr. Sims is meeting with her to discuss options.

Her school uses data points about students' academic strengths, interests, and career aspirations. Maria has shared that she likes math and science and has taken the PreACT and ACT 2x (national).

What ACT resources/assessment data can Mr. Sims include and reference in his advisement session?

Scenario #2

Thomas is beginning his senior year and weighing his options between pursuing postsecondary education and entering the workforce directly after graduation.

His school has administered both the ACT and PreACT assessments to gather data on academic readiness and potential career pathways.

The school's career counselor, Ms. Ramirez, uses this assessment data to counsel Thomas regarding his post-high school options. What other resources/recommendation might be useful for this session?

Creating a College and Career Readiness Plan

THINGS TO DO BEFORE HIGH SCHOOL GRADUATION

01

USE CAREER
READINESS
RESOURCES
PROVIDED BY YOUR
SCHOOL AND/OR
COUNSELOR

02

PARTICIPATE IN WORK
AND/OR WORK-
BASED LEARNING: JOB
SHADOWING,
INTERNSHIPS, AND
APPRENTICESHIPS

03

BUILD SKILLS OUTSIDE
THE CLASSROOM:
LEADERSHIP,
COMMUNICATION,
CREATIVITY,
COLLABORATION

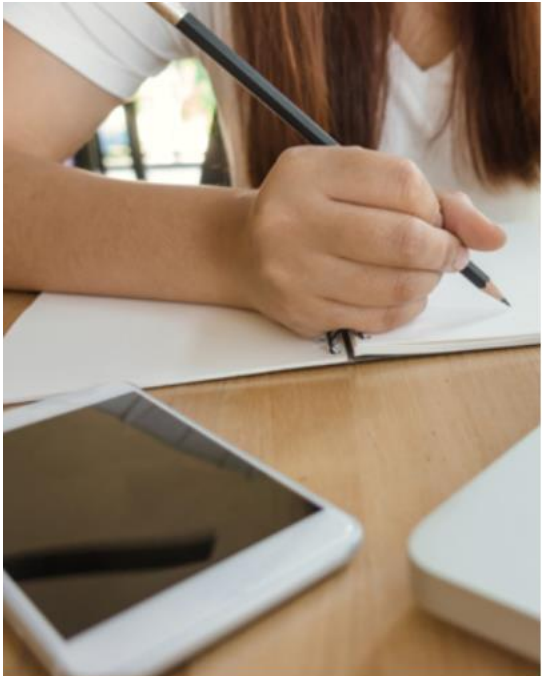


College and Career Readiness Day Toolkit

Everything you need to make your event a success

Access Pre-recorded webinar and tool kit at:
<https://site.act.org/act-ccrday-2025-webinar>

COLLEGE AND CAREER READINESS CHECKLIST



COLLEGE & CAREER READINESS CHECKLIST

ACT provides holistic tools and services designed to help you make a difference in your students' college and career readiness. Consider using this checklist when creating activities for your high school college and career readiness plan.

CAREER READINESS ACTIVITIES

	GRADE LEVEL			
	9	10	11	12
REVISE AND/OR COMPLETE CAREER AND ACADEMIC PLAN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOLD A CAREER DAY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UTILIZE THE ACT® NON-TEST INFORMATION AND PRACTICE® ASSESSMENTS INTEREST INVENTORY INCLUDED IN ADVISORY CLASSES THROUGHOUT THE YEAR TO COUNSEL STUDENTS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADMINISTER ACT® WORKKEYS® CURRICULUM AND ASSESSMENTS		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OFFER THE ACT® WORKKEYS® NATIONAL CAREER READINESS CERTIFICATE® (NCRC®)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADD THE NCRC EARLY INDICATOR LEVEL FROM PRACTICE 8/9 AND PRACTICE TO THE CAREER AND ACADEMIC PLAN	<input type="checkbox"/>	<input type="checkbox"/>		
REVIEW WORKPLACE SKILLS WITH WORKKEYS NCRC PRACTICE TESTS			<input type="checkbox"/>	<input type="checkbox"/>
SET UP JOB SHADOWING AND APPRENTICESHIP OPPORTUNITIES			<input type="checkbox"/>	<input type="checkbox"/>

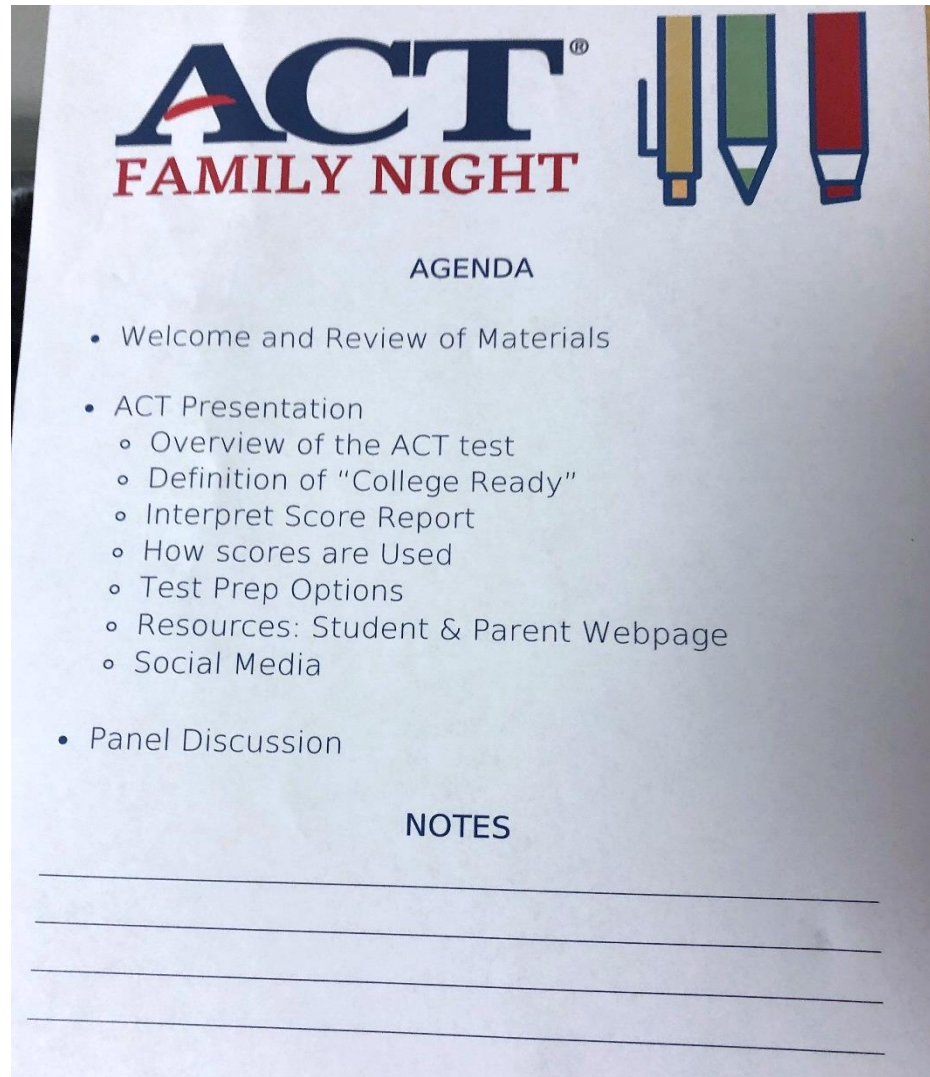


COLLEGE AND CAREER READINESS CHECKLIST


COLLEGE READINESS ACTIVITIES

	GRADE LEVEL			
	9	10	11	12
ADMINISTER PRACT® 8/9 (IN THE FALL)	<input type="checkbox"/>			
REVIEW PRACT 8/9 RESULTS IN A CLASSROOM SETTING AND/OR WITH INDIVIDUAL STUDENTS	<input type="checkbox"/>	<input type="checkbox"/>		
ESTABLISH A COLLEGE AND CAREER READINESS DAY, A SPECIFIC DAY DEDICATED TO THE READINESS OF YOUR STUDENTS. BUILD YOUR COLLEGE AND CAREER READINESS DAY BY ADMINISTERING MOSAIC™ BY ACT® SOCIAL EMOTIONAL LEARNING ASSESSMENTS PAIRED WITH OTHER GRADE APPROPRIATE ASSESSMENTS (PRACT 8/9, PRACT®, THE ACT®, ACT® WORKKEYS®) ON THE SAME DAY TO REDUCE DISRUPTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADMINISTER PRACT (IN THE FALL AND/OR SPRING)	<input type="checkbox"/>	<input type="checkbox"/>		
REVIEW PRACT RESULTS IN A CLASSROOM SETTING AND/OR WITH INDIVIDUAL STUDENTS			<input type="checkbox"/>	
HOLD A PEP RALLY TO CELEBRATE TEST SCORES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BOOK A MOTIVATIONAL SPEAKER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OFFER ADVISORY CLASSES: HELD WEEKLY THROUGHOUT THE YEAR. TOPICS CAN INCLUDE: <ul style="list-style-type: none"> • TRANSITION TO HIGH SCHOOL • ACADEMIC PROGRESS/NEEDS • TUTORING PROGRAMS AVAILABLE • ACT TEST PREP • COLLEGE/CAREER EXPLORATION • INTEREST INVENTORIES • SCHOLARSHIP OPPORTUNITIES • COLLEGE APPLICATION COMPLETION • RESUME WRITING 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOLD A FINANCIAL AID/SCHOLARSHIP APPLICATION/FAFSA COMPLETION NIGHT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADMINISTER ACT DISTRICT TESTING (FALL AND/OR SPRING)			<input type="checkbox"/>	<input type="checkbox"/>
OFFER AN ACT TEST PREP COURSE		<input type="checkbox"/>	<input type="checkbox"/>	
UTILIZE ACT® ONLINE PREP™ THROUGHOUT THE YEAR TO SUPPLEMENT THE CURRICULUM IN CONTENT AREA CLASSROOMS (IF NOT INCLUDED IN ADVISORY CLASSES)	<input type="checkbox"/>	<input type="checkbox"/>		
SCHEDULE COLLEGE FAIRS OR VISITS		<input type="checkbox"/>	<input type="checkbox"/>	

ASSESSMENT AWARENESS



ACT[®]
FAMILY NIGHT



AGENDA

- Welcome and Review of Materials
- ACT Presentation
 - Overview of the ACT test
 - Definition of "College Ready"
 - Interpret Score Report
 - How scores are Used
 - Test Prep Options
 - Resources: Student & Parent Webpage
 - Social Media
- Panel Discussion

NOTES



Grade 9

- **ACTIVITY 1** Administer a college and career readiness assessment (grade level appropriate) to establish a baseline for all students.
- **ACTIVITY 2** Review assessment results (incoming 9th graders who tested in March of the previous year) in a classroom setting and/or with individual students.
- **ACTIVITY 3** Consider establishing a College and Career Readiness Day, a specific day dedicated to the readiness of your students. Build your College and Career Readiness Day by pairing your college entrance exam with other assessments on the same day to reduce disruption.
- **ACTIVITY 4** Pep Rally to celebrate test scores
- **ACTIVITY 5** Motivational Speaker
- **ACTIVITY 6** Advisory Class—held weekly throughout the year. Some topics to include:
 - high school academic progress/needs
 - tutoring programs available
 - transition to high school
 - non-test info from college readiness assessment
 - introduction of professionals in the most popular career areas, based on student interests from the non-test portion of college readiness assessment

Activities Calendar

AUG	2	6	
SEP	1	6	
OCT	6		
NOV	6		
DEC	5	6	
JAN	6		
FEB	6		
MAR	1	6	
APR	3	6	
MAY	2	3	6

A TEMPLATE FOR A COLLEGE AND CAREER READINESS PLAN FOR HIGH SCHOOL

COLLEGE READINESS

Grade 10

- **ACTIVITY 1** Administer a college and career readiness assessment (grade level appropriate) to establish a baseline for all students.
- **ACTIVITY 2** Pep rally to celebrate test scores
- **ACTIVITY 3** Consider establishing a College and Career Readiness Day, a specific day dedicated to the readiness of your students. Build your College and Career Readiness Day by pairing your college entrance exam with other assessments on the same day to reduce disruption.
- **ACTIVITY 4** Review of assessment results (incoming 10th graders who tested in the previous year) in a classroom setting and/or with individual students.
- **ACTIVITY 5** Motivational speaker
- **ACTIVITY 6** Financial Aid/Scholarship Application Night introduction for sophomores
- **ACTIVITY 7** Test prep course offering available in the spring of 10th grade
- **ACTIVITY 8** Advisory Class—held weekly through the year. Some topics to include:
 - interest inventories
 - high school academic progress/needs
 - test readiness activities
- **ACTIVITY 9** Utilize test prep throughout the year in content area classrooms as supplemental curriculum (if not including in Advisory).

Activities Calendar

AUG	4	8	9	
SEP	1	8	9	
OCT	8	9		
NOV	8	9		
DEC	8	9		
JAN	7	8	9	
FEB	6	7	8	9
MAR	1	7	8	9
APR	3	7	8	9
MAY	2	7	8	9
JUN				
JUL				

A TEMPLATE FOR A COLLEGE AND CAREER READINESS PLAN FOR HIGH SCHOOL

WorkKeys Supports Career and Academic Planning

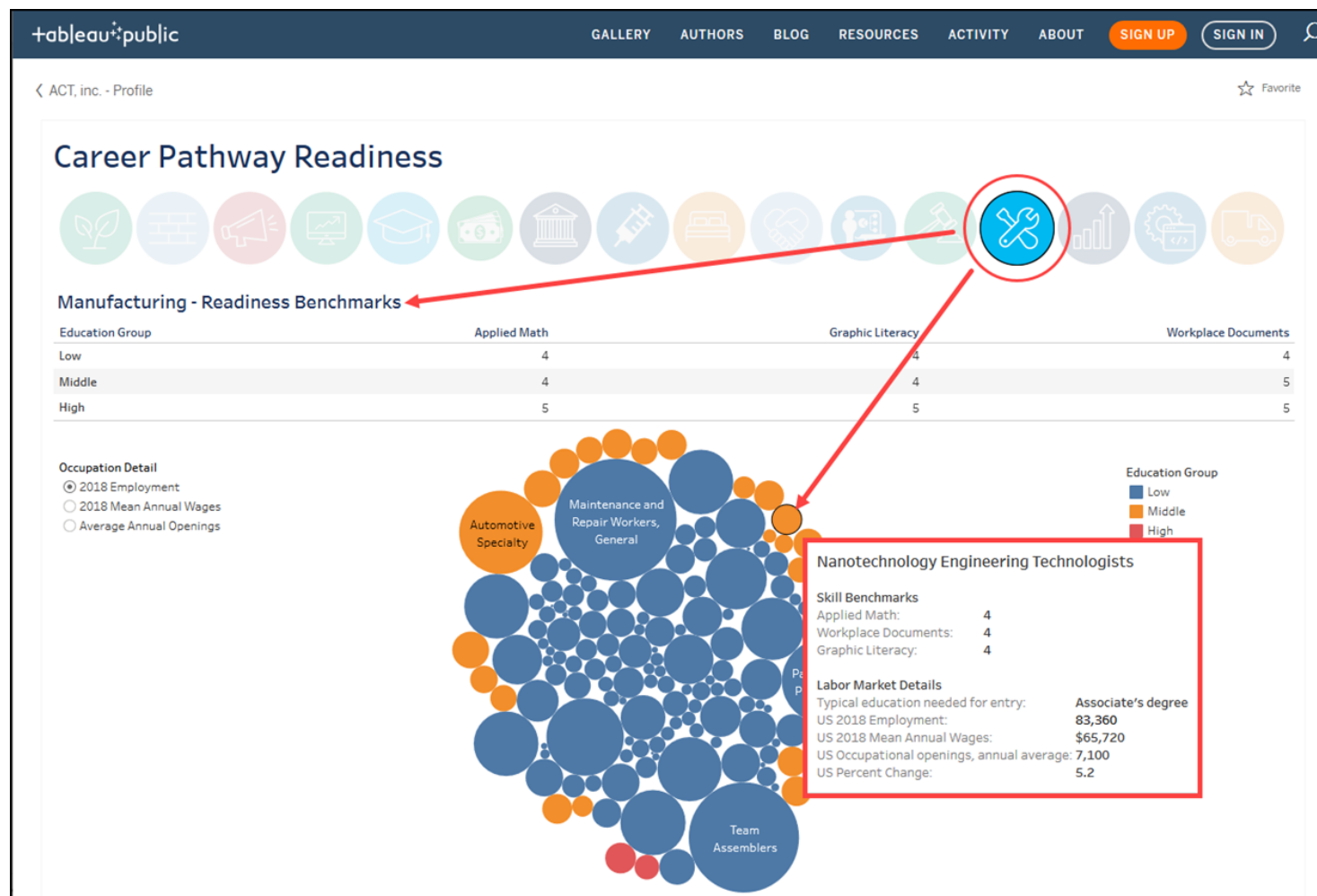
WorkKeys/NCRC Skill Profiles as Benchmarks for Career and Academic Planning:

Career Readiness

<https://public.tableau.com/app/profile/act2044/viz/CareerReadinessBenchmarks/CareerReadiness?publish=yes>

Industry Readiness

<https://public.tableau.com/app/profile/act2044/viz/IndustryReadinessBenchmarksDashboard/IndustryReadinessDashboard>



OTHER CAREER NAVIGATION RESOURCES



O*NET: <https://www.mynextmove.org/>



U.S. Bureau of Labor Statistics Occupational Outlook:
<https://www.bls.gov/ooh/>



thank you!

Jerome Williams
ACT Account Executive – MO & SD
jerome.williams@act.org
816-591-6227

Additional Resources – District Testing

- [ACT Now District Testing Steps](#) – and support info.
- [ACT Now District Testing Technical Readiness](#)
- [Preparing for the ACT](#)

Additional Resources – PreACT 8/9, PreACT, & PreACT Secure

- [PreACT Online](#)
- [PreACT Secure](#)
- [Instructions for Completing Answer Document](#)

Additional Resources WorkKeys

- [Missouri WorkKeys](#)
- [ACT NCRC Webpage](#)
- [ACT WorkReady Communities](#)
- [ACT WorkKeys Sample Questions](#) (includes sample questions and practice test)

Additional Resources – Professional Learning

- [ACT Professional Learning Page](#)
- [Professional Learning Catalog](#)

Additional Resources – ACT Social Emotional Learning (SEL)

- [SEL Landing Page](#)
- [SEL Assessments](#)