HIGH SCHOOL METRICS OF POSTSECONDARY READINESS

February 8, 2018

EDUCATION COMMISSION
OF THE STATES
Your education policy team.

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The **essential**, **indispensable** member of any team addressing education policy.

What we do

We believe in the power of **learning from experience** and we know informed policymakers create **better education policy**.

How we do it

RESEARCH | REPORT | COUNSEL | CONVENE

Overview

What are HS indicators predictive of:

- PS completion
- Other PS success?

How are these reflected in requirements for other states' PS-ready diplomas and endorsements?

Postsecondary Completion Predictors

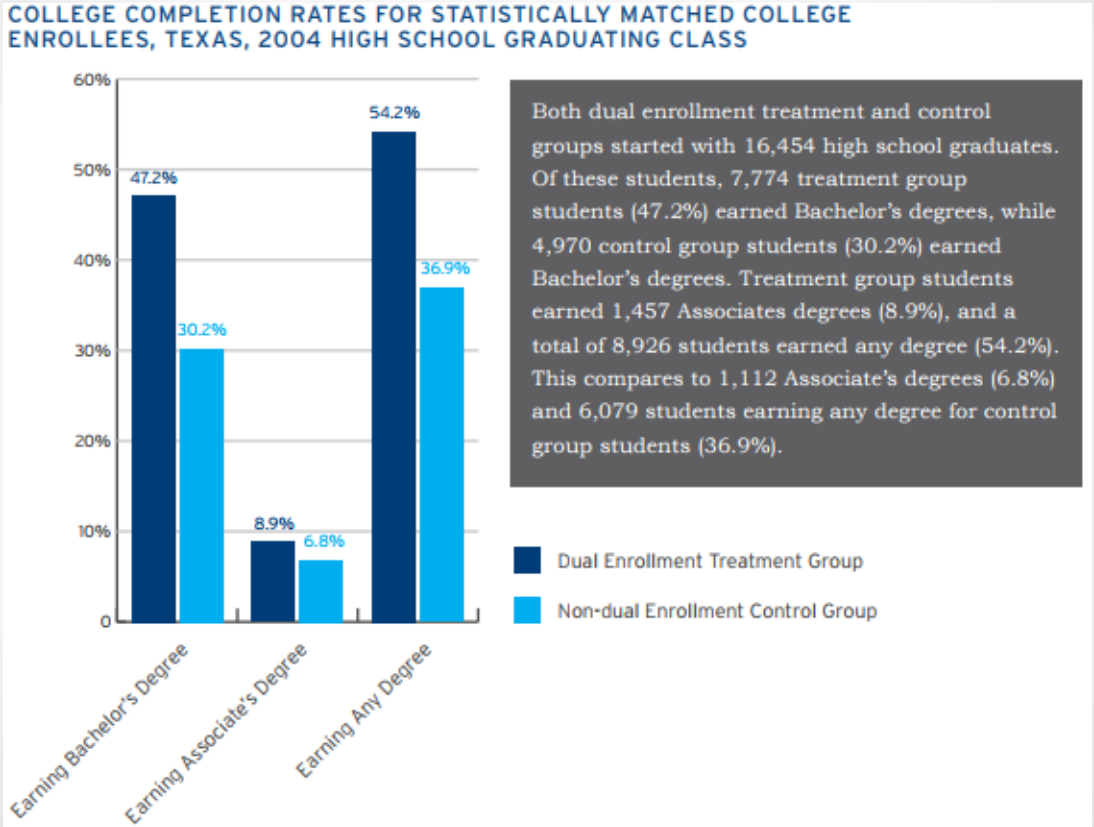
- Dual enrollment course completion
- Rigorous HS course completion
- ACT, SAT benchmark scores
- AP success
- HS grade point average (GPA)

Dual enrollment course completion

"Dual enrollment" = HS students taking postsecondary courses for HS and PS credit

Not specific to course location, instructor type, etc.

Dual enrollment course completion



Source: Jobs for the Future, *Taking College Courses in High School: A Strategy for College Readiness*, October 2012

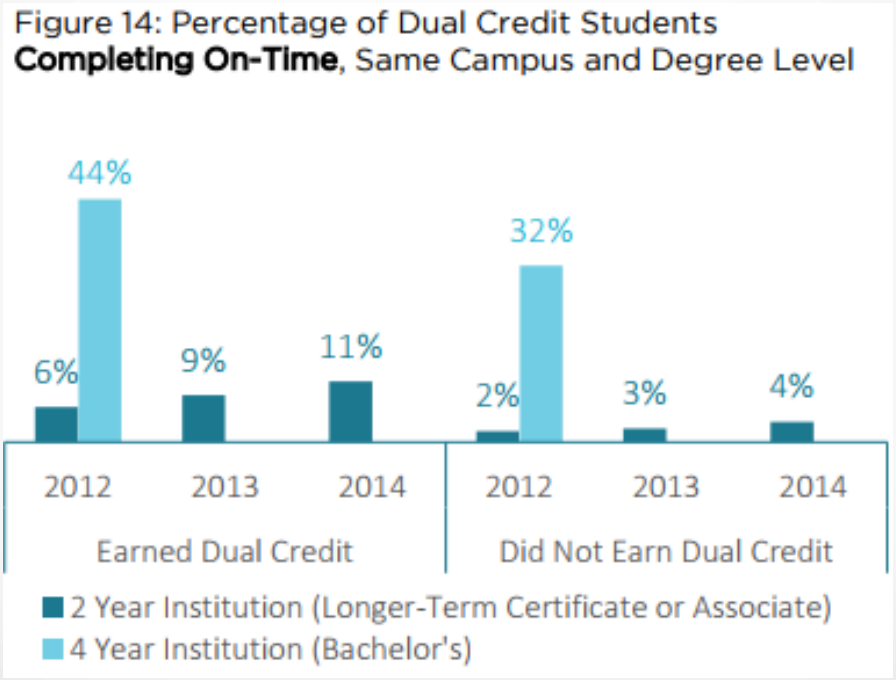
Dual enrollment course completion

South Dakota Board of Regents, 2013 Study

Persistence to Completion	Dual Enrolling	All Other Students
Bachelor's Seekers Earning B.A./B.S. in ≤4 Years	40.5%	22.4%
Bachelor's Seekers Earning B.A./B.S. in ≤6 Years	74.2%	54.0%
Average Time (in Years) to B.A./B.S. Degree Completion	4.52	4.72

Dual enrollment course completion

Indiana



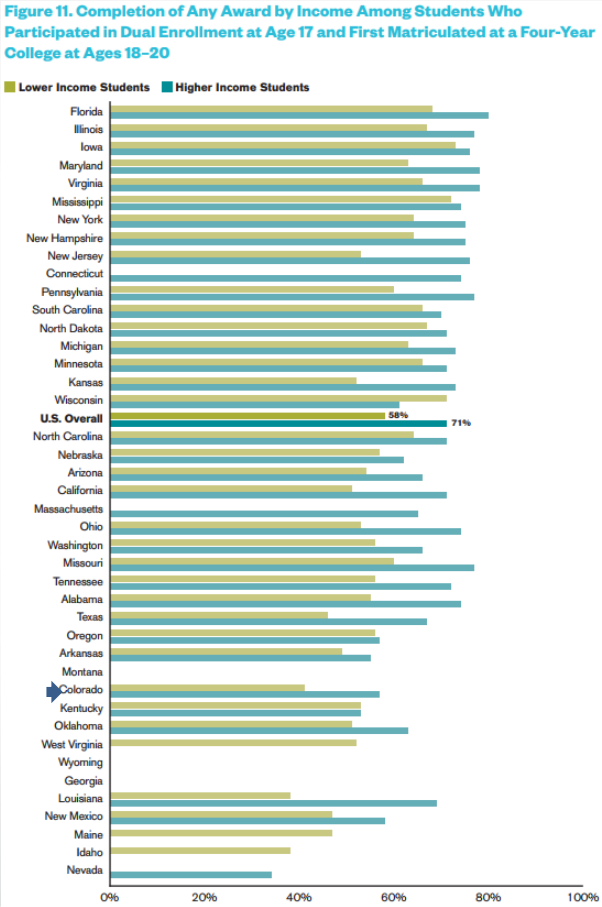
Source: Indiana Commission for Higher Education, *College Readiness Report Supplement: Dual Credit Taking and College Performance Trends*, April 2017

Dual enrollment course completion

Figure 8. Completion of Any Award by Income Among Students Who Participated in Dual Enrollment at Age 17 and First Matriculated at a Community College at Ages 18–20

Source: Community College Research Center, *What Happens to Students Who Take Community College "Dual Enrollment" Courses in High School?"*, September 2017

Dual enrollment course completion



Source: Community College Research Center, *What Happens to Students Who Take Community College "Dual Enrollment" Courses in High School?"*, September 2017

Rigorous high school course completion

- **English**: Min. **3** units
- **Math**: Min. **3.75** units
  - Highest math = calc, precalc, trigonometry
- **Science**: Min. **2.5** units

  OR 2+ units core **lab** science
- **Social studies**: **2+** units

Source: Clifford Adelman, *The Toolbox Revisited*, 2006

Rigorous high school course completion

- **Foreign language**: **2+** units
- **Computer science**: Min. **1** unit
- **AP**: **1+** course
- No remedial English, no remedial math

Source: Clifford Adelman, *The Toolbox Revisited*, 2006

Rigorous high school course completion

"Of all pre-college curricula, the **highest level of mathematics** one studies in secondary school has the **strongest continuing influence** on bachelor's degree **completion**. Finishing **a course beyond** … **Algebra 2** (for example, trigonometry or pre-calculus) **more than doubles the odds** that a student who enters postsecondary education will **complete a bachelor's degree**."

Source: Clifford Adelman, *Answers in the Toolbox*, 1999

Rigorous high school course completion

"The **impact** of a high school curriculum of high academic intensity and quality **on degree completion** is **far more pronounced** and positively - **for African-American** and **Latino students** than any other pre-college indicator of academic resources. The **impact** for African-American and Latino students is also **much greater than** it is **for white students**."

Source: Clifford Adelman, *Answers in the Toolbox*, 1999

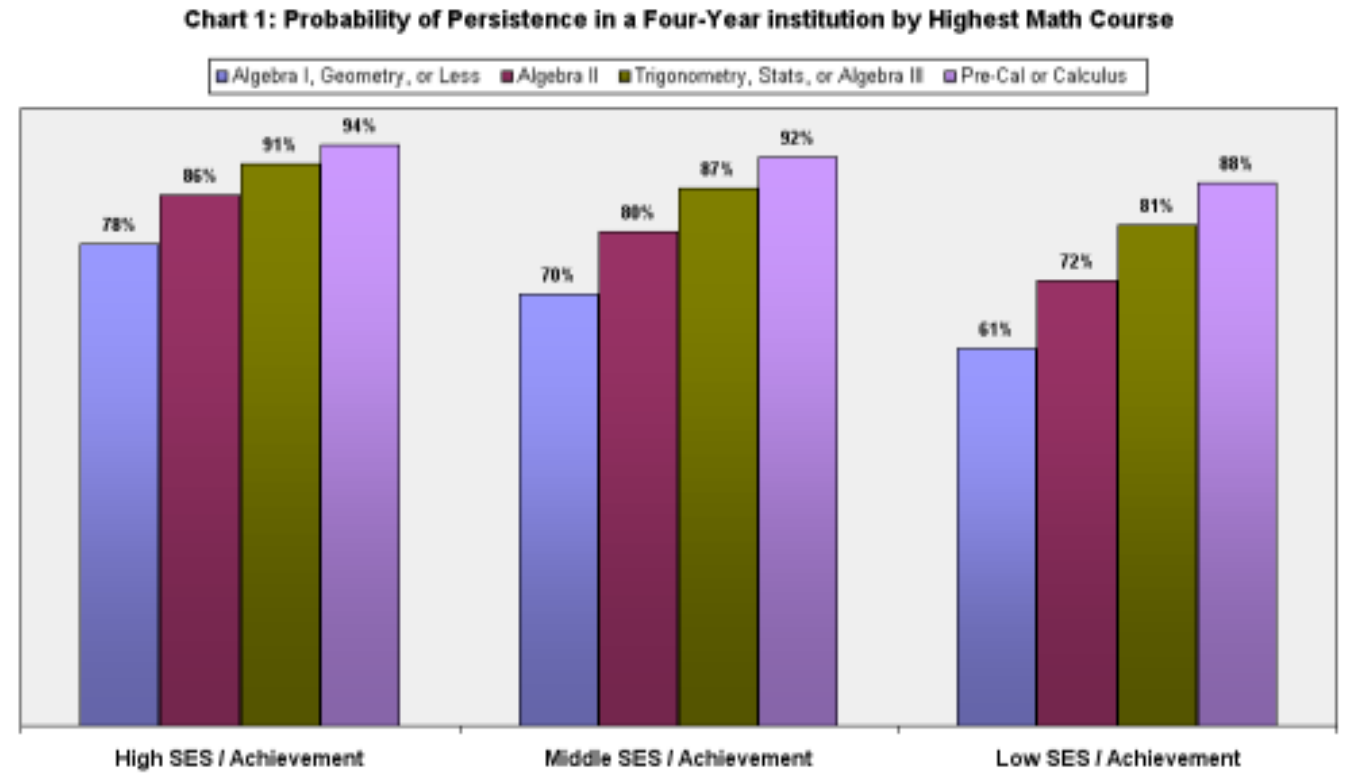
Rigorous high school course completion

ACT recommended curriculum:

- 4 years English
- 3 years math
  - Math beyond Algebra II
- 3 years science
  - Science beyond Chemistry
- 3 years social studies

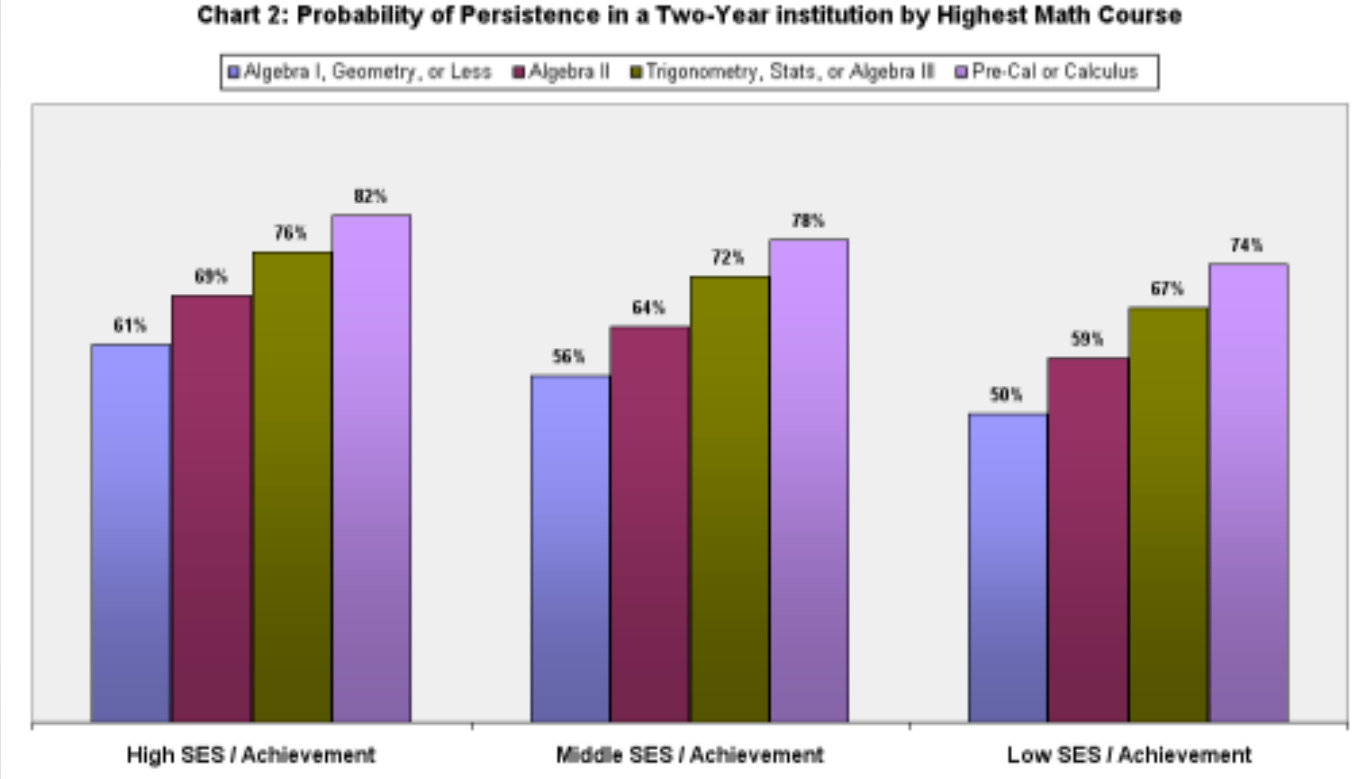
Source: ACT, What We Know About College Success: Using ACT Data to Inform Educational Issues, 2008

Rigorous high school course completion



Source: *High school rigor and good advice: Setting up students to succeed*, October 2012

Rigorous high school course completion



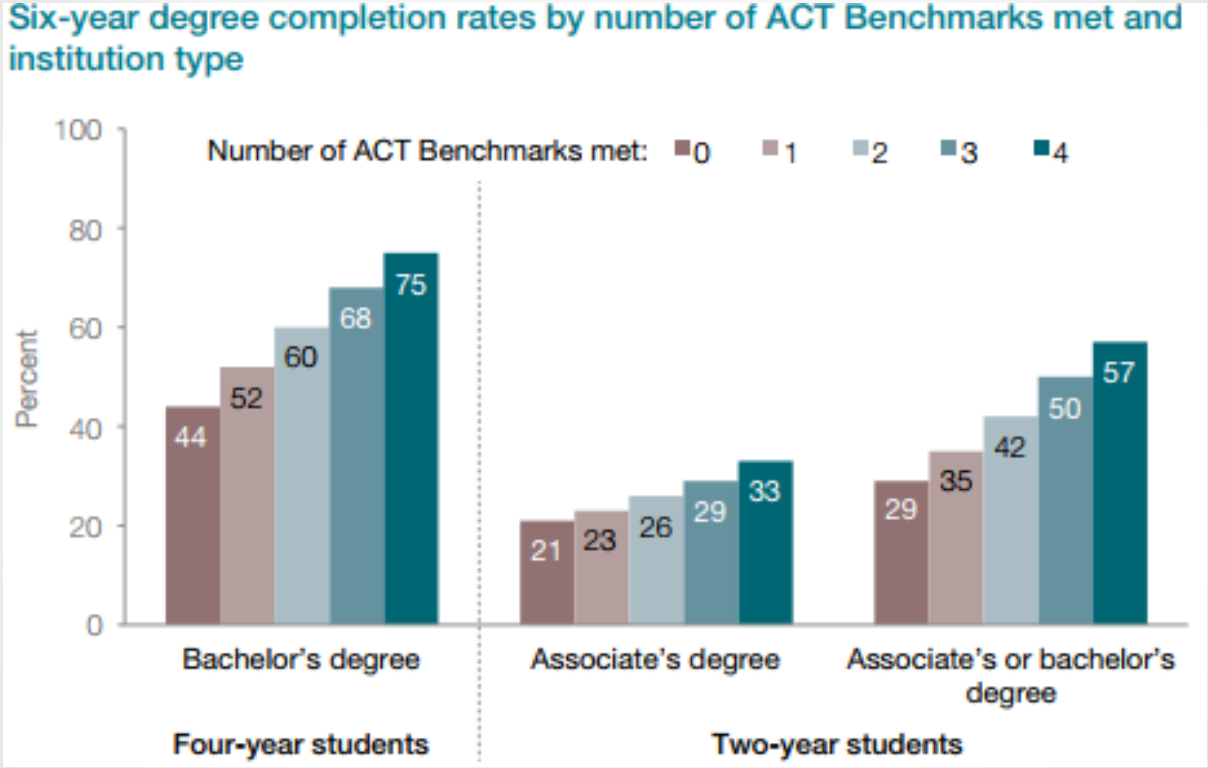
Source: *High school rigor and good advice: Setting up students to succeed*, October 2012

ACT Benchmark Scores

College Course or Course Area	ACT Subject-Area Test	ACT Test Benchmark
English Composition	English	18
Social Sciences	Reading	22
College Algebra	Mathematics	22
Biology	Science	23

Source: ACT, *What Are the ACT College Readiness Benchmarks?*, September 2013

ACT Benchmark Scores



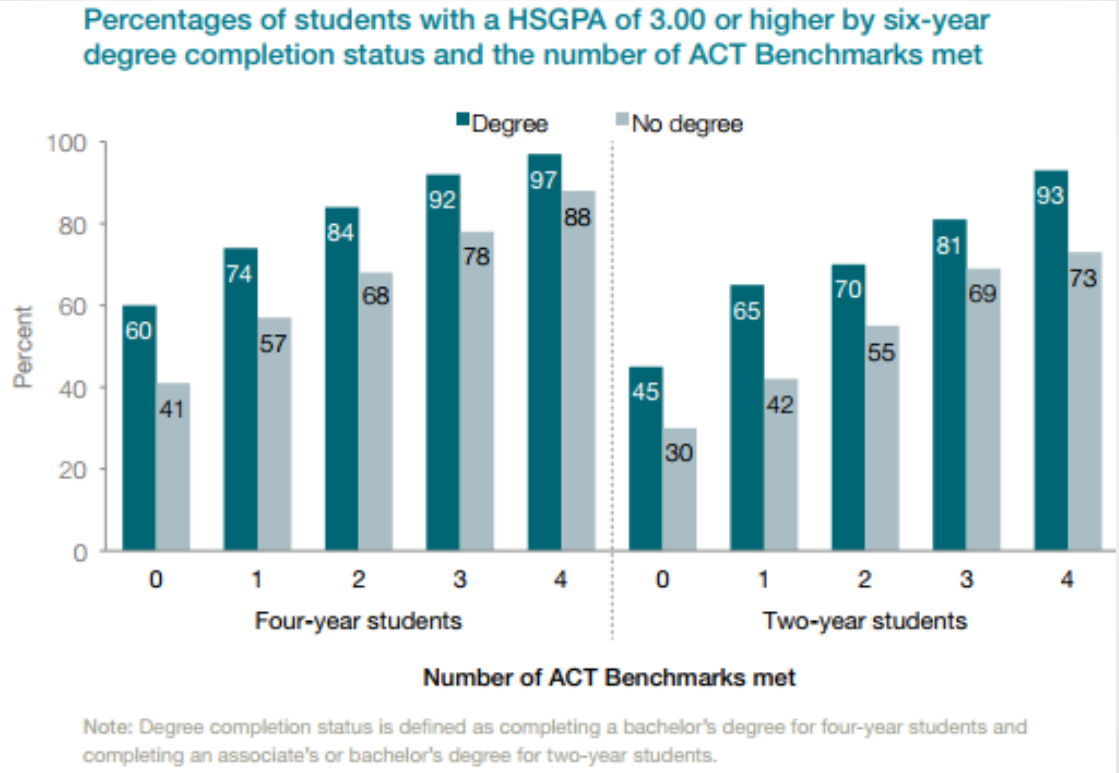
Source: ACT, *Readiness Matters: The Impact of College Readiness on College Persistence and Degree Completion*, February 2013

ACT Benchmark Scores

- ACT recommends **multiple measures** as more accurate predictor of college success.

- "**HSGPA likely measures** aspects of … **cognitive and noncognitive components** of college readiness…For students who meet the same number of ACT Benchmarks, **degree completers** are **more likely to have**" **min. 3.0 HS GPA**.

ACT Benchmark Scores



Source: ACT, *Readiness Matters: The Impact of College Readiness on College Persistence and Degree Completion*, February 2013

SAT Benchmark Scores

The Values of the College and Career Readiness Benchmarks

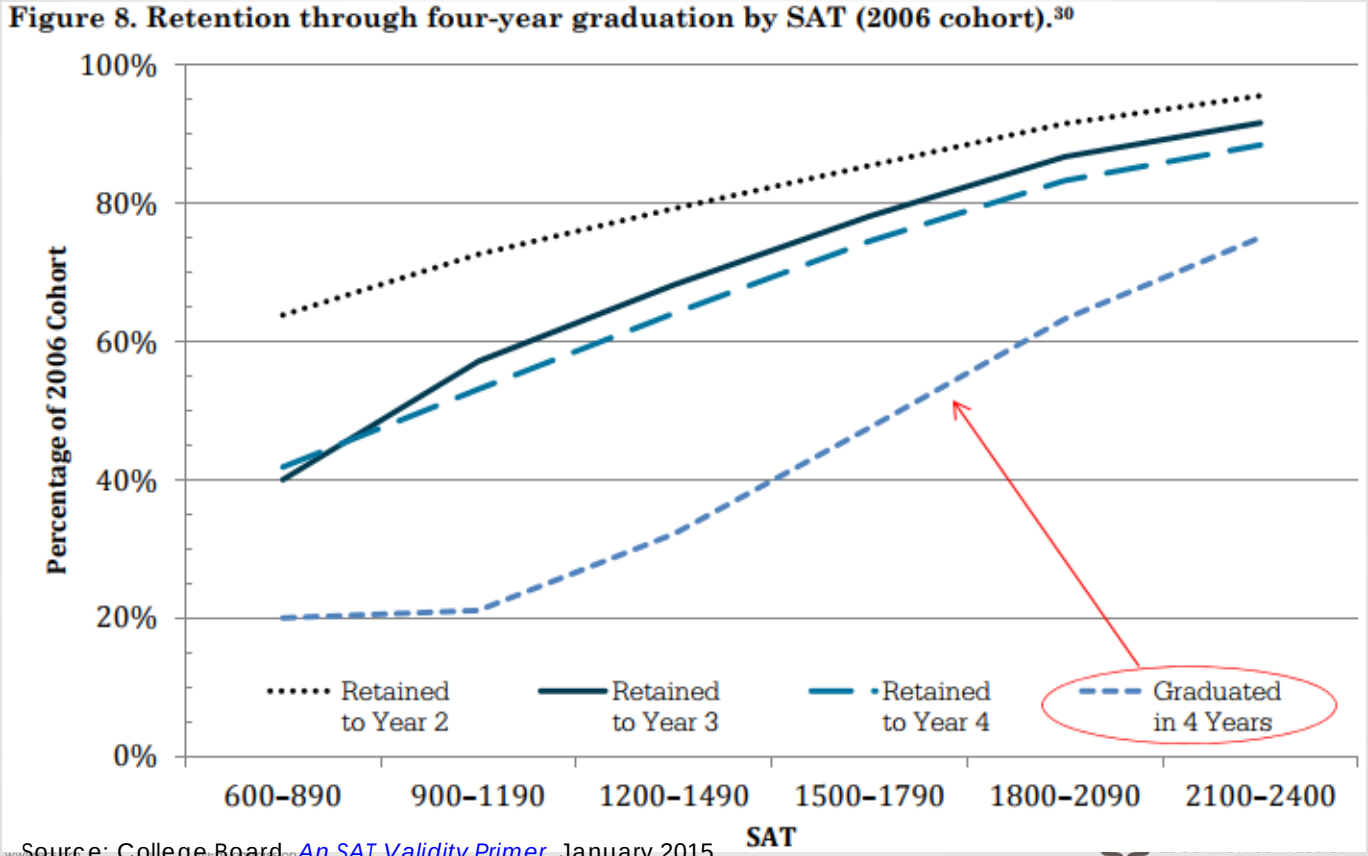
Across the SAT Suite of Assessments, the benchmark scores* are as follows:

Assessment – Grade Level	Evidence-Based Reading and Writing Benchmark	Math Benchmark
SAT	480	530
Grade 11	460	510
Grade 10	430	480
Grade 9	410	450
Grade 8	390	430

*Once students who have taken the redesigned SAT have entered college and earned course grades in the relevant subjects in 2017-18, an additional benchmark study will be conducted.

Source: College Board, *The College and Career Readiness Benchmarks for the SAT Suite of Assessments*, n.d.

SAT Benchmark Scores

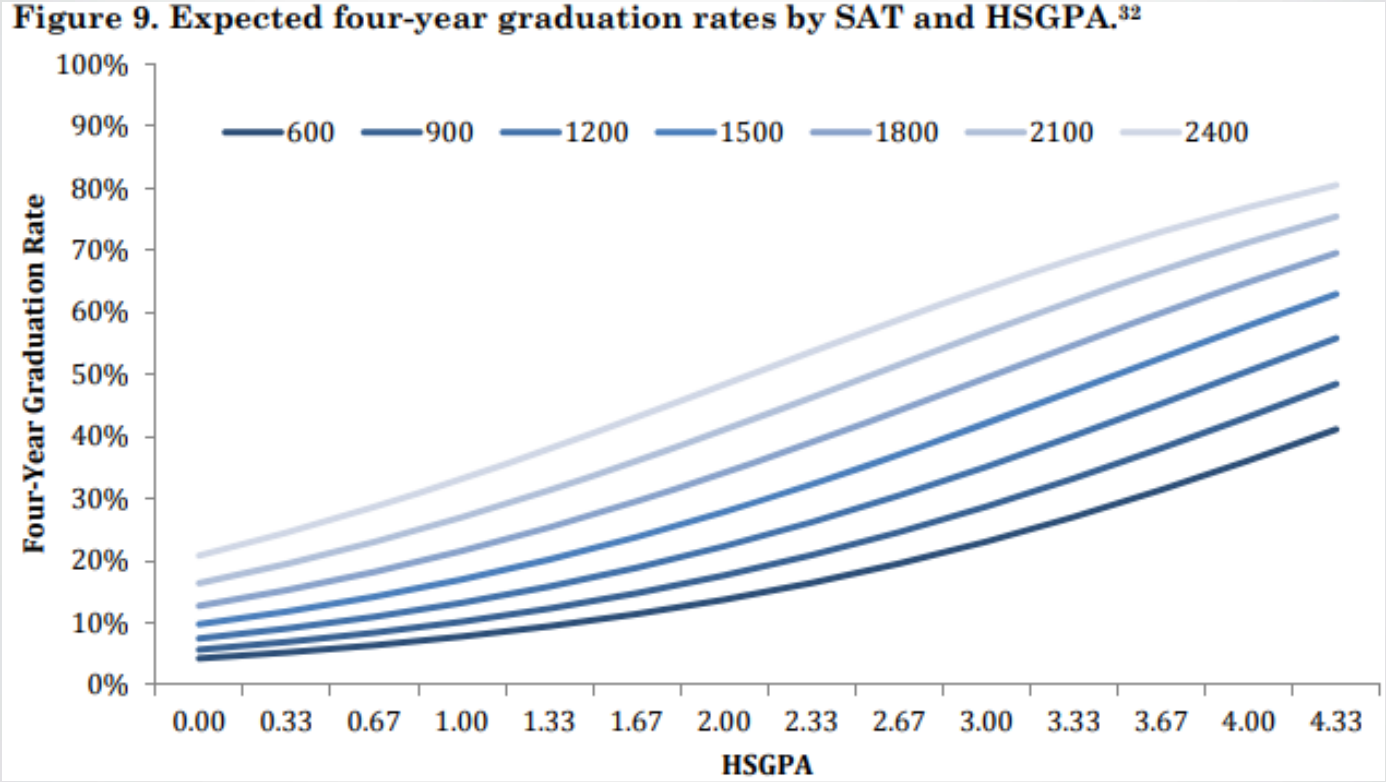


Source: College Board, *An SAT Validity Primer*, January 2015

SAT Benchmark Scores

SAT also finds that **SAT scores AND HS GPA** are a **more accurate predictor** of college completion **than SAT** or **HS GPA alone**.

SAT Benchmark Scores

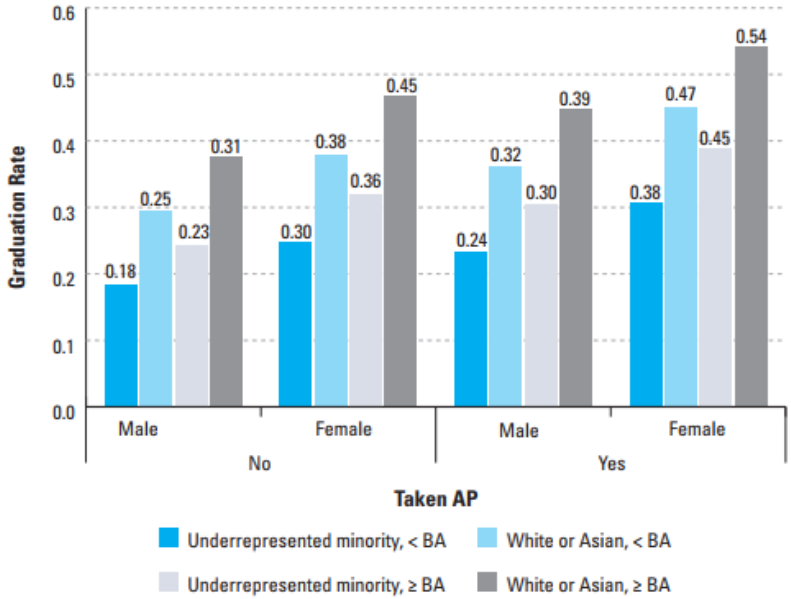


Source: College Board, *An SAT Validity Primer*, January 2015

AP Participation, Success

Figure 1.

Four-year graduation rates by AP Exam participation and student characteristics: Sample 1.



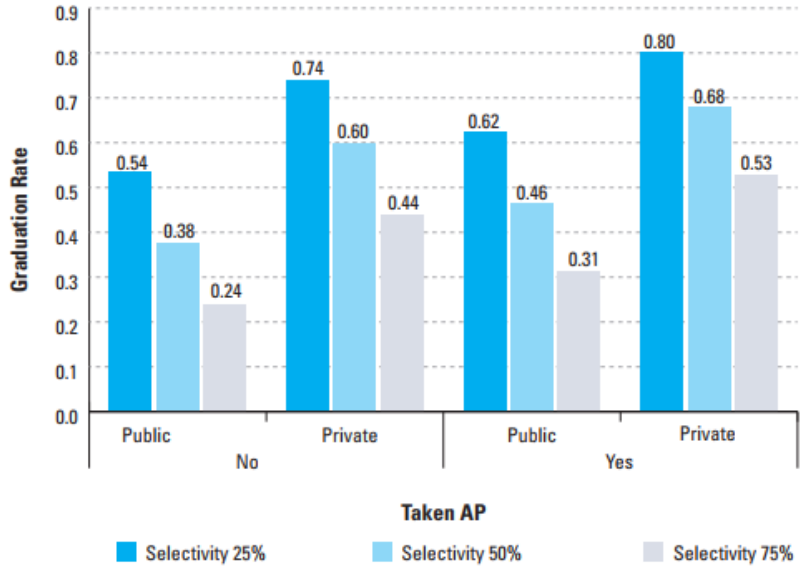
Based on parameter estimates for Model 5 (Table 2), expected four-year graduation rate by AP Exam participation and student characteristics were computed. These values are associated with a student with an average PSAT/NMSQT score attending a public institution of average selectivity.

Source: College Board, *Are AP Students More Likely to Graduate from College on Time?*, 2013

AP Participation, Success

Figure 2.

Four-year graduation rates by AP Exam participation and institutional characteristics: Sample 1.



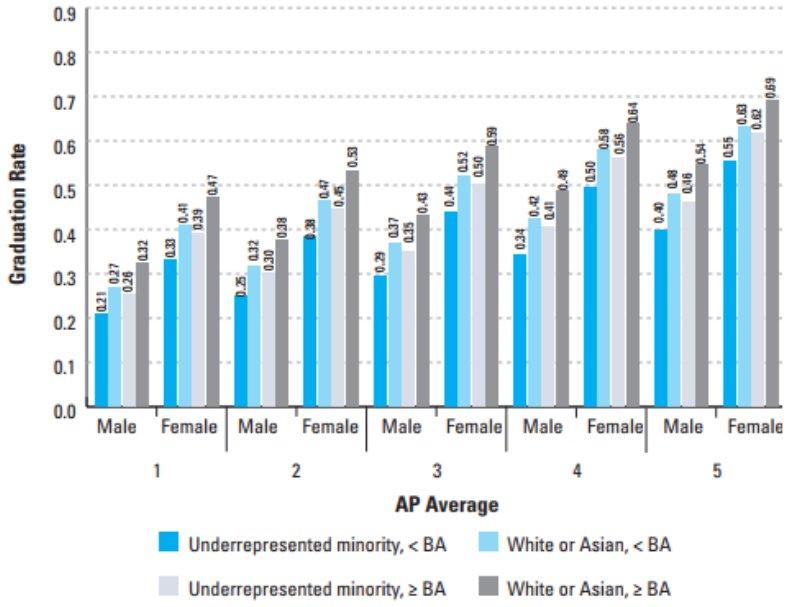
Based on parameter estimates for Model 5 (Table 2), expected four-year graduation rate by AP Exam participation and institutional characteristics were computed. These values are associated with a white or Asian, non-first-generation status male with an average PSAT/NMSQT score.

Source: College Board, *Are AP Students More Likely to Graduate from College on Time?*, 2013

AP Participation, Success

Figure 3.

Four-year graduation rates by AP performance and student characteristics: Sample 1.



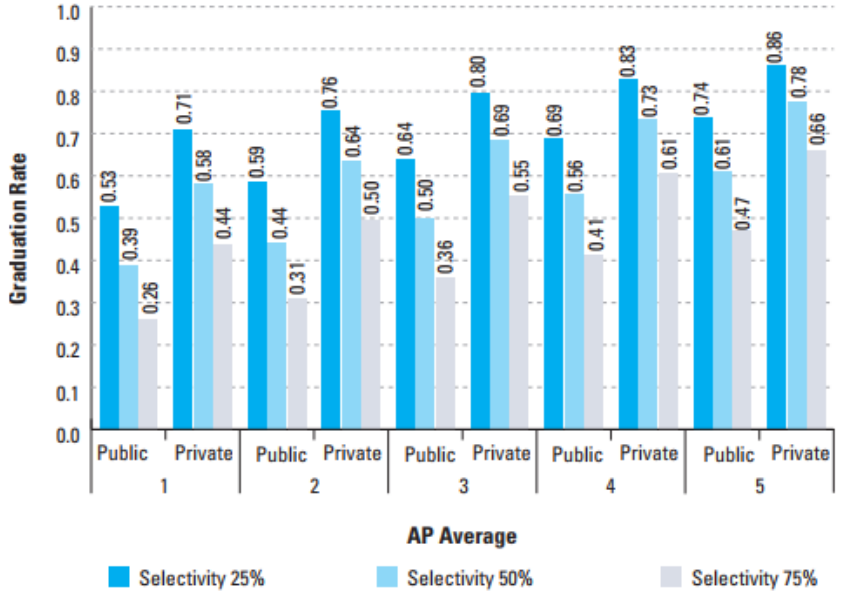
Based on parameter estimates for Model 10 (Table 3), expected four-year graduation rate by AP performance and student characteristics were computed. These values are associated with a student with an average PSAT/NMSQT score attending a public institution of average selectivity.

Source: College Board, *Are AP Students More Likely to Graduate from College on Time?*, 2013

AP Participation, Success

Figure 4.

Four-year graduation rates by AP performance and institutional characteristics: Sample 1.



Based on parameter estimates for Model 10 (Table 3), expected four-year graduation rate by AP performance and institutional characteristics were computed. These values are associated with a white or Asian, non-first-generation status male with an average PSAT/NMSQT score.

Source: College Board, *Are AP Students More Likely to Graduate from College on Time?*, 2013

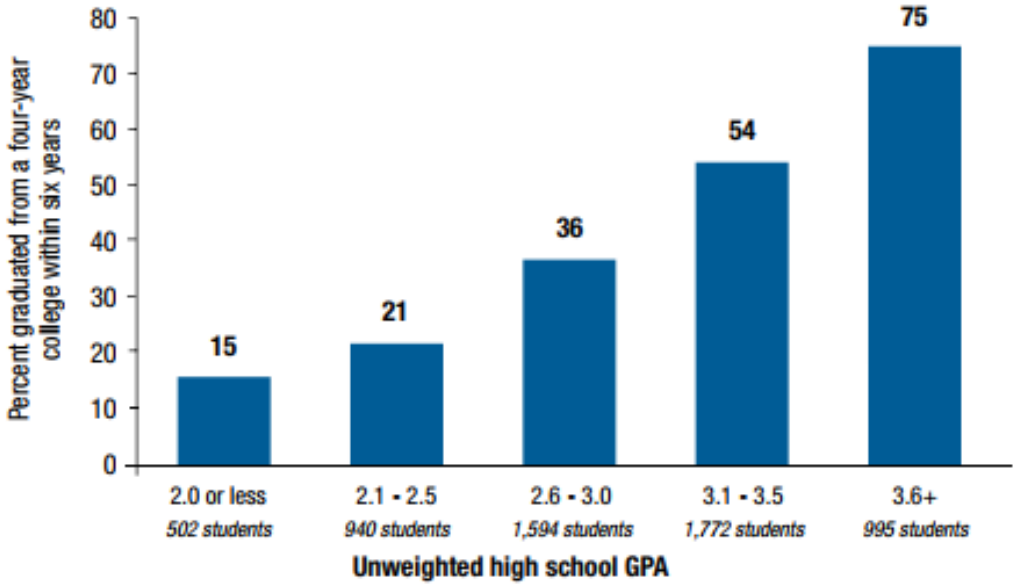
HS GPA

Chicago research: HS GPA more predicative of 4-year degree completion than AP/honors course completion or 11th grade test scores.

HS GPA

REVISED FIGURE 3-4

College graduation rates by unweighted high school GPA



Note: These were CPS alumni who enrolled full time in a four-year college by spring following their high school graduation and enrolled in a college for which we have graduation information.

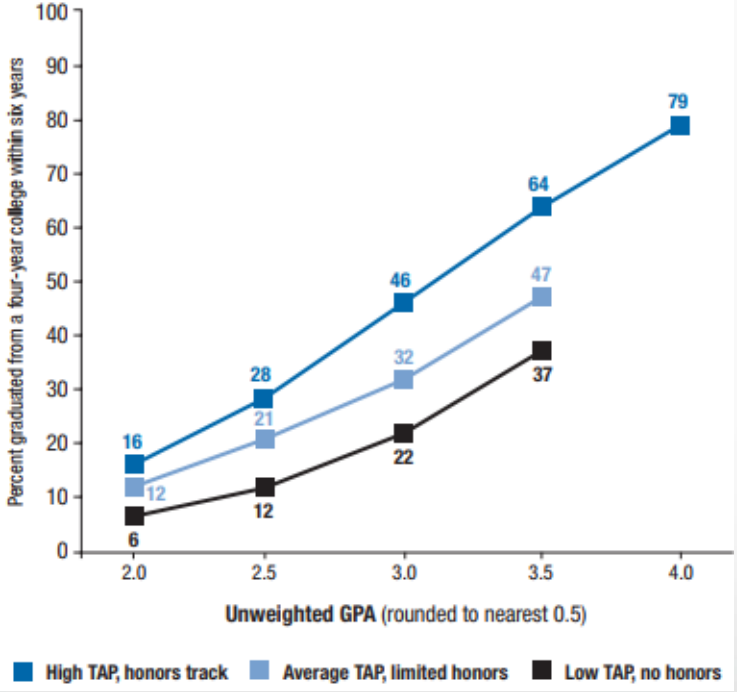
Source: UChicago Consortium on School Research, October 2006 update to *From High School to the Future: A First Look at Chicago Public School Graduates' College Enrollment, College Preparation and Graduation from Four-Year Colleges*

HS GPA

Figure 3-7

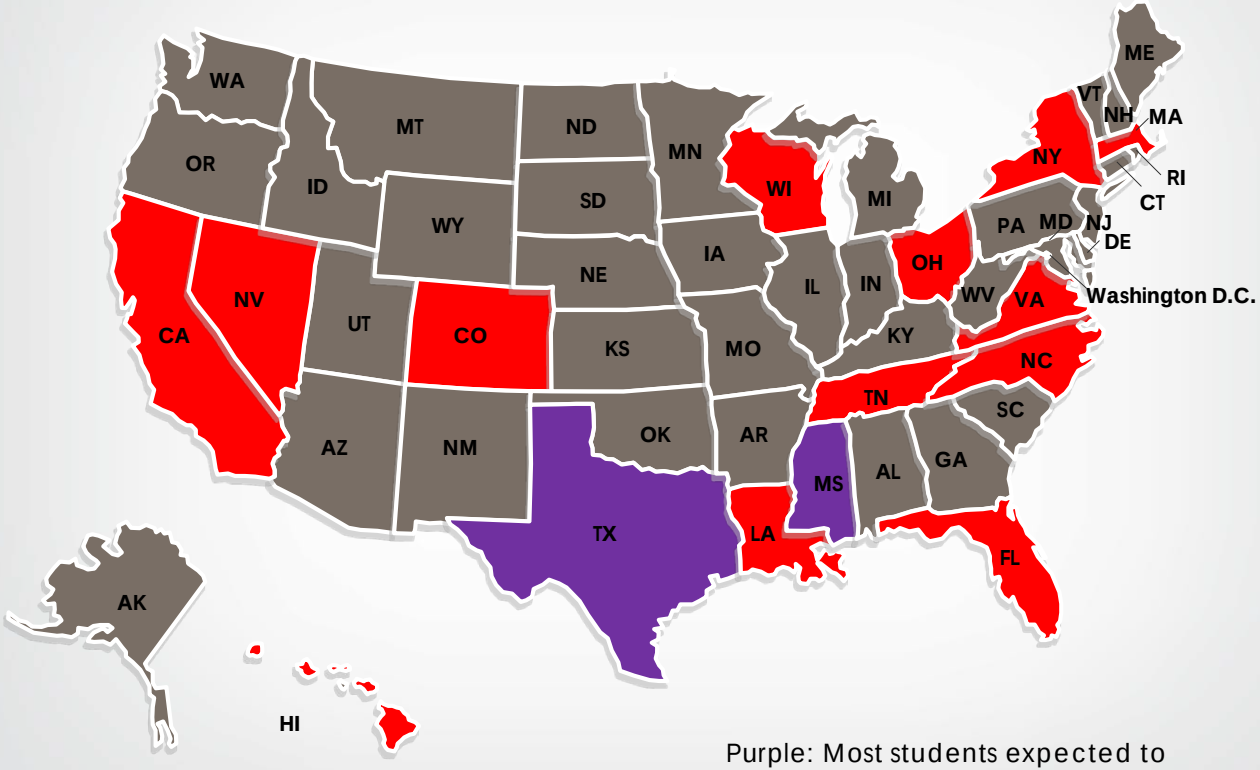
Students were very likely to graduate from college only if they had both high GPAs and good test scores

College graduation rates by high school GPAs of students in different curricular tracks



Source: UChicago Consortium on School Research, *From High School to the Future: A First Look at Chicago Public School Graduates' College Enrollment, College Preparation and Graduation from Four-Year Colleges, April 2006*

States with PWR endorsements or advanced diploma options that meet ESSA grad. rate reqts.



Purple: Most students expected to complete endorsement.

Ohio: Academic Honors Diploma

- Min. 3.5 **GPA** (on 4.0 scale)
- Min. 27 **ACT** composite or 1280 **SAT** composite
- 4 units **math**, incl. Algebra I, geometry, Algebra II + higher level course
- 4 units **science**, incl. 2 advanced science
- 4 social studies
- 3 units 1 world lang. or 2 units x 2 world lang.
- 1 fine arts

Conclusion

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