College Readiness in Pennsylvania in a Time of Changing Demographics

8th Annual College Success Forum

Robert Morris University

January 28, 2020

Your presenters:

- Cassandra Allen Director, K-12, College Board
- Amanda Sohl
 Director, Higher Education Services, College Board

Today's topics:

- Demographic shifts across the educational landscape in PA and beyond
- College readiness in PA participation and performance on assessments
- Opportunities for K-12 & HE moving forward
- Key takeaways and discussion on how we can best serve our students

The class of 2025 will mark the beginning of a significant decline in the number of high school graduates in the United States.

This has important implications for higher education institutions.

Some key points to keep in mind:

- Currently, approximately 40% of the US population earns a Bachelor's Degree
- Birth rates have declined 12% since 2007 recession not only delayed but also eliminated births. Lowest rate since 1970s.

Knocking on the College Door (WICHE)



2017-2029

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U.S.A. 2017 = 3,385,917, by 2021 +34,294 (+1%) U.S.A. 2021 = 3,420,211, by 2025 +140,840 (+4%) U.S.A. 2025 = 3,561,051, by 2029 -293,225 (-8%)

West 2017 = 808,871, by 2021 +21,792 (+3%) West 2021 = 830,692, by 2025 +25,160 (+3%) West 2025 = 855,852, by 2029 -73,901 (-9%)

Midwest 2017 = 726,056, by 2021 -6,970 (-1%) Midwest 2021 = 719,086, by 2025 +13,477 (+2%) Midwest 2025 = 732,563, by 2029 -61,503 (-9%)

Northeast 2017 = 603,414, by 2021 -3,406 (-1%) Northeast 2021 = 600,008, by 2025 +12,629 (+2%) Northeast 2025 = 612,637, by 2029 -41,983 (-7%)

South 2017 = 1,244,581, by 2021 +22,288 (+2%) South 2021 = 1,266,869, by 2025 +85,769 (+7%) South 2025 = 1,352,638, by 2029 -113,857 (-9%) Hispanic 2017-2025 +31% +219,150

Private School 2017-2023 -18% -48,823

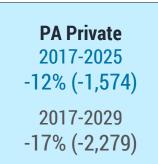
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Knocking on the College Door (WICHE)

Pennsylvania 2017-2029

U.S.A. 2017-2029 -118,091(-3%)						
2017	2021	2025	2029			
3,385,917	3,420,211 (+1%)	3,561,051 (+4%)	3,267,826 (-8%)			

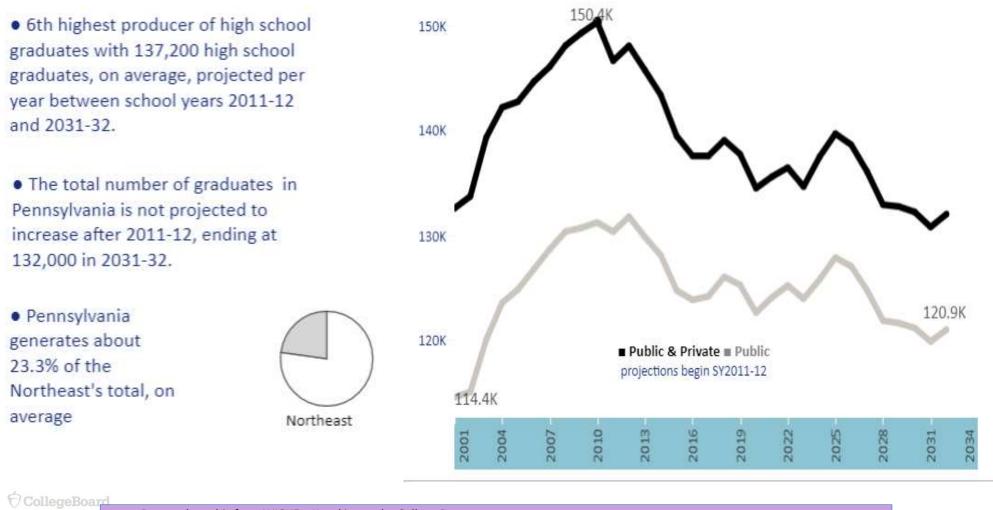
2017	2021	2025	2029	PA Hispar
606,414	600,008 (-1%)	612,637 (+2%)	570,654 (-7%)	2017-202 +5% (+5,1
Pennsylvani	a 2017-2029	-4,840 (-4%)		2017-202
				2011 202
2017	2021	2025	2029	+5% (+5,3





https://knocking.squarespace.com/s/All-Projections-Published-Table-Format-en76.xlsx

Pennsylvania HS Enrollment Trends



Data and graphic from WICHE – Knocking at the College Door report

Migration of First-Time, First-Year Freshmen 2008 & 2018

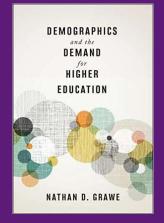
Traditional (non-for-profit) four-year, degree granting institutions

The Top 14 exporting states are listed for each of 2008 and 2018. They happen to be the same states, just in different orders.

% left for % stayed in- Entered state % left for % stayed in- Entered state Stayed Stayed 2008 2018 Left the state Left the state state in-state other states in-state other states state New Jersey (#1) 30,757 21,078 59% 41% 4,121 California (#1) 36,527 131,601 22% 78% 23,632 27% 73% 49% 51% 12,949 New York (#2) **28,334** 75,750 30,513 Illinois (#2) **32,147** 33,434 39% 61% **31.090** 27.552 53% 47% Illinois (#3) **23.855** 37.977 10.983 New Jersey (#3) 5.008 California (#4) **21,739** 116,664 16% 84% 14,127 New York (#4) **29,117** 79,936 27% 73% 34,831 Massachusetts 41% 81% 17,626 25,455 59% 24,505 Texas (#5) 23,683 102,859 19% 10,465 (#5) Massachusetts Texas (#6) **16,994** 77,755 18% 82% 6,426 **19,165** 25,613 43% 57% 25,872 (#6) Pennsylvania (#7) 15,458 55,701 22% 78% 29,682 Pennsylvania (#7) 16,302 52,462 24% 76% 31,617 Maryland (#8) **15,156** 12,721 54% 46% 7,862 Florida (#8) 15,004 96,238 13% 87% 15,942 Connecticut (#9) 13,739 10,271 57% 43% Maryland (#9) **14,722** 12,777 54% 46% 9,197 7,701 Ohio (#10) 18% 82% Connecticut (#10) 13,913 56% 44% 12,281 54,298 12,215 10,746 9,948 39% Minnesota (#11) 11,879 18,259 61% 7,438 Minnesota (#11) **12,776** 17,968 42% 58% 7,437 Florida (#12) 10,575 81,177 12% 88% 13,986 Georgia (#12) 12,477 47,109 21% 79% 12,138 74% 12,566 Virginia (#13) **11,158** 31,170 26% 74% 13,703 Virginia (#13) **9,783** 27,893 26% Georgia (#14) **9,624** 40,468 19% 81% 7,212 Ohio (#14) **11,136** 52,619 17% 83% 17,273

Calculated from IPEDS Fall Enrollment 2008 & 2018

Are headcounts the right way to think about future demand for higher education?



The problem with headcounts

Example:

Lilly: Asian American female living in Boston with both parents who both have a bachelor's degree and earn \$125,000 annually.

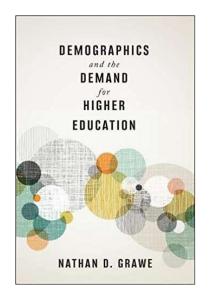
Marco: Hispanic male living in California with a mother who hold no degree and earns \$40,000 annually.

Probability of Lilly attending a 4-year college or university = 96%

Probability of Marco attending a 4-year college or university = 9%

Probability of Lilly attending a college or university ranked in the top 50 = 73% Probability of Marco attending a college or university ranked in the top 50 = 2%

Higher Education Demand Index (HEDI)



 For a wide variety of reasons, there have been different patterns of college attendance along the lines of gender, race, income, geography, parental education, family structure, etc.

• Different groups of students have different probabilities of attending college.

- Dr. Nathan Grawe built a model of higher education attendance and developed future demand forecasts – the Higher Education Demand Index (HEDI)
- The HEDI should be considered a baseline. Think of these projections as what would happen if nothing of significance changed.

Higher Education Demand Index (HEDI)

Major takeaways

- 2-year schools will experience a dramatic decline 20% over the next 15 years.
- Elite 4-year schools (top 50) will not see impact like other sectors.
- National and regional schools will experience a greater share of decline.
- This is compounded by for those in the Northeast

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Higher Education Demand Index (HEDI) National



2018-2029 All percentages relative to 2018

OCollegeBoard

All Four-Year 2018 = 1,783,720 All Four-Year 2019 = 1,783,517 (0%) All Four-Year 2025 = 1,863,528 (+4%) All Four-Year 2029 = 1,583,889 (-11%)

Regional Four-Year 2018 = 1,446,526 Regional Four-Year 2019 = 1,442,102 (0%) Regional Four-Year 2025 = 1,511,125 (+4%) Regional Four-Year 2029 = 1,268,267 (-12%)

National Four-Year 2018 = 281,214 National Four-Year 2019 = 282,856 (+1%) National Four-Year 2025 = 299,651 (+7%) National Four-Year 2029 = 251,825 (-10%)

Elite Four-Year 2018 = 170,980 Elite Four-Year 2019 = 174,054 (+2%) Elite Four-Year 2025 = 188,006 (+10%) Elite Four-Year 2029 = 174,451 (+2%)

https://people.carleton.edu/~ngrawe/HEDI/StatusQuo.xlsx

HEDI Category Definitions

Elite = #1-50 USNWR National Colleges and Universities

National = #51-100 USNWR

Regional = Outside top 100 USNWR

How do I read the numbers?

"The market for prospective students in 2018 seeking a fouryear college in the United States was 1,783,720."

HEDI Northeast



2018-2029 All percentages relative to 2018

OCollegeBoard

		All Northeast	Middle Atlantic	New England
ar	2018	386,587	283,751	84,836
Four-Year 2019 2025		357,148 (-3%)	276,128 (-3%)	81,020 (-4%)
	2025	363,570 (-1%)	284,016 (0%)	79,555 (-6%)
All	2029	305,726 (-17%)	240,297 (-15%)	65,430 (-23%)
	2018	294,294	232,049	62,244
Regional	2019	282,035 (-4%)	224,106 (-3%)	57,928 (-7%)
legi	2025	290,979 (-1%)	232,372 (0%)	58,606 (-6%)
د 2029		241,132 (-18%)	192,970 (-17%)	48,162 (-23%)
	2018	62,500	44,108	18,392
ona	2019	60,895 (-3%)	43,517 (-1%)	17,378 (-6%)
National	2025	63,281 (+1%)	46,121 (+5%)	17,160 (-7%)
	2029	51,654 (-17%)	37,825 (-14%)	13,830 (-25%)
	2018	45,619	32,609	13,101
Elite	2019	46,336 (+2%)	33,086 (+1%)	13,251 (+2%)
Ш	2025	47,542 (+4%)	34,311 (+5%)	13,231 (+2%)
	2029	42,720 (-6%)	31,691 (-3%)	11,029 (-15%)

https://people.carleton.edu/~ngrawe/HEDI/StatusQuo.xlsx

HEDI Pennsylvania



All Pennsylvania Not PHL or PIT **Philadelphia Metro Pittsburgh Metro** 95,394 36,817 45,274 13,304 2018 All Four-Year 2019 91,480 (-4%) 46,268 (+2%) 12.092 (-9%) 33,120 (-10%) 89,482 (-6%) 43,168 (-5%) 13,376 (+1%) 2025 32,938 (-11%) 2029 80,956 (-15%) 37,959 (-16%) 11,274 (-15%) 31,723 (-14%) 2018 78,468 30,838 36,897 10,733 Regional 2019 74,830 (-5%) 27,412 (-11%) 37,741 (+2%) 9,678 (-10%) 2025 73,011 (-7%) 27,290 (-12%) 34,691 (-6%) 11,030 (+3%) 2029 65,845 (-16%) 25,770 (-16%) 30,951 (-16%) 9,124 (-15%) 2018 14,067 1,976 4,659 7,432 National 2019 13,674 (-3%) 4,281 (-8%) 7,555(+2%) 1,839 (-7%) 2025 12,940 (-8%) 4,055 (-13%) 6,778 (-9%) 2,106 (+7%) 2029 11,850 (-16%) 3,965 (-15%) 6,242 (-16%) 1,644 (-17%) 2018 10,135 3,389 5,250 1,496 Elite 2019 10,043 (-1%) 3,205 (-5%) 5,334 (+2%) 1,503 (+1%) 2025 10,856 (+7%) 3,473 (+2%) 5,898 (+12%) 1,485 (-1%) 2029 9,166 (-10%) 1,169 (-22%) 3,514 (+4%) 4,483 (-15%)

CollegeBoard

2018-2029

All percentages relative to 2018

https://people.carleton.edu/~ngrawe/HEDI/StatusQuo.xlsx

Don't Ignore These Realities



Nathan D. Grawe Image & Quote via Inside Higher Ed article by Scott Jaschik

- Q: Many college leaders outside elite higher education seem to assume there is a magic bullet for admissions success -- that some combination of better marketing, more out-of-staters, more international, lower tuition or something -- will just do the trick. What is your message for them?
- A: Psychologists tell us that our brains struggle with paradigm shifts. Despite obvious evidence of a sea change, we are predisposed to seek status quo solutions. As uncomfortable as it may be to face up to the demographic challenges ahead, we will feel much less comfortable if we ignore these realities until the end of the 2020s when enrollments are in free fall. With so much lead time, thoughtful planning using nuanced forecasts should better prepare us for the storm ahead. The HEDI forecasts are intended to provide campus leaders the basis for just such discussions.

In the Northeast in 2016, 52% of high school graduates attended a four-year institution and 18% a two-year or other type of institution.

But more than 30% of 2016 high school graduates in the Northeast, about 186,000 students, did not engage in higher education.

Calculated from WICHE and IPEDS Freshman Migration data for 2016.

College Readiness in Pennsylvania

College Board Program Results for 2019 cohort

National Results:



- € 64% took the essay
- € 41% underrepresented minority students
- € 19% took SAT using a fee waiver
 - \$\vee\$ 45% of SAT takers in the class of 2019 met both SAT College and Career Readiness Benchmarks
 \$\vee\$ 68% met EBRW benchmarks
 - to 48% met Math benchmarks
 - PSAT/NMSQT test takers on track to meet both SAT benchmarks:
 - ♦ Grade 11: 43%
 - to Grade 10: 40%





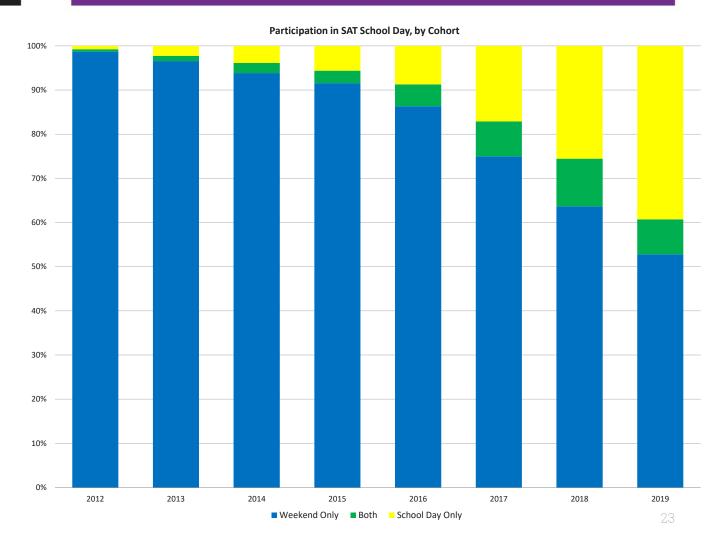
SAT[®] College and Career Readiness Benchmarks

- 75% likelihood of earning at least a C in a first-semester, credit-bearing college course in a related subject
- Set at section level
- Overall college and career readiness is defined as achieving both of the section-level benchmarks on a given assessment.
- Grade-level benchmarks are based on expected student growth toward the SAT Benchmarks:



SAT School Day & Saturday Administrations

Nearly 1 M Students in the 2019 cohort took SAT during the school day.



Pennsylvania SAT Suite Participation

259,755 test takers completed the SAT or a PSAT-related assessment (PSAT/NMSQT,PSAT10,orPSAT 8/9) in the2018-19 school year.

Class of 2019

SAT Takers ¹	95,794
High School Graduates ²	137,709
SAT Participation Rate	70%

Class of 2020

PSAT/NMSQT Takers ³	77,696
11th-Grade Enrollment ²	144,142
Participation Rate	54%

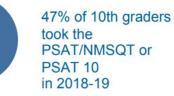
Class of 2021

PSAT/NMSQT or PSAT 10 Takers ³	72,275
10th-Grade Enrollment ²	153,370
Participation Rate	47%



70% of graduates in the class of 2019 took the SAT during high school

54% of 11th graders took the PSAT/NMSQT last fall



SAT Participation and Performance: Total Group

Data reflect 2019 high school graduates who took the SAT during high school. If a student took the SAT more than once, the most recent score and self-reported SAT questionnaire responses are summarized.

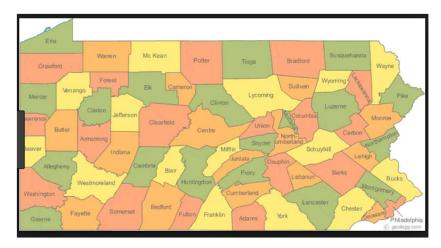
	-								
Total		st Takers		Mean Sco				chmarks	
	Number	Percent	Total	ERW	Math	Both	ERW	Math	None
Total	95,794		1082	545	537	50%	75%	52%	23%
Took Essay ¹	45,457	47%	1140	574	566	61%	84%	63%	15%
Race / Ethnicity	Test Takers Mean Sco		re Met E		Met Ben	enchmarks			
	Number	Percent	Total	ERW	Math	Both	ERW	Math	None
American Indian/Alaska Native	287	0%	956	479	477	25%	47%	29%	49%
Asian	5,603	6%	1202	581	621	71%	81%	77%	14%
Black/African American	9,820	10%	911	464	447	17%	41%	18%	58%
Hispanic/Latino	8,967	9%	979	498	481	29%	56%	31%	42%
Native Hawaiian/Other Pacific Islander	65	0%	962	484	478	26%	52%	29%	45%
White	64,724	68%	1119	564	554	58%	84%	60%	15%
Two or More Races	3,657	4%	1071	543	528	45%	74%	47%	25%
No Response	2,671	3%	945	479	466	26%	46%	28%	52%
C	_								
Sex		st Takers	Total	Mean Sco	Math	Both	Met Ben ERW	chmarks Math	None
	Number	Percent	Total	ERW					None
Female	51,863	54%	1070	545	525	46%	75%	48%	23%
Male	43,902	46%	1097	546	551	55%	75%	58%	23%
No Response	29	0%	805	409	396	10%	14%	10%	86%
First Language Learned	Te	st Takers	Mean Score		Met Benchmarks				
	Number	Percent	Total	ERW	Math	Both	ERW	Math	None
English Only	81,234	85%	1090	551	539	52%	78%	54%	21%
English and Another Language	8,400	9%	1057	528	529	44%	65%	46%	33%
Another Language	4,413	5%	1076	523	553	48%	62%	54%	32%
No Response	1,747	2%	864	438	426	15%	29%	17%	69%

Pennsylvania

Class of 2019



- 75% met the CCR benchmark for EBRW
- 52% met the CCR benchmark for math
- 50% met both benchmarks
- 47% completed the essay
- 23% were underrepresented minority students
- 21% used a fee waiver



SAT Score Sending: Institutions

Of the 95,794 students from Pennsylvania who took the SAT, 68,868 designated that their score reports be sent to institutions.

A total of 3,132 institutions received score reports from

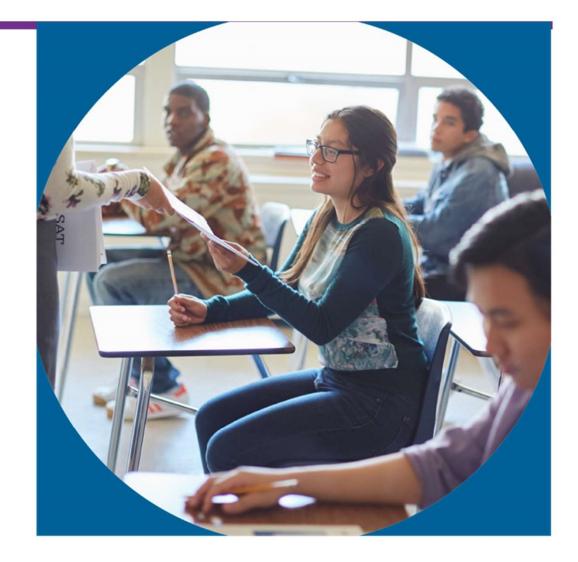
Pennsylvania students .

Institution	State	Туре	Number of Students	% of Score Senders
Penn State University Park	PA	Public College	26,815	38.9%
Temple University	PA	Public College	13,563	19.7%
University of Pittsburgh	PA	Public College	13,197	19.2%
West Chester University of Pennsylvania	PA	Public College	11,028	16.0%
Drexel University	PA	Private College	8,031	11.7%
Bloomsburg University of Pennsylvania	PA	Public College	5,966	8.7%
Indiana University of Pennsylvania	PA	Public College	5,670	8.2%
Kutztown University of Pennsylvania	PA	Public College	4,825	7.0%
Millersville University of Pennsylvania	PA	Public College	4,551	6.6%
University of Pennsylvania	PA	Private College	4,431	6.4%
Shippensburg University of Pennsylvania	PA	Public College	4,275	6.2%
NCAA Eligibility Center	IN	Public College	4,273	6.2%
University of Delaware	DE	Public College	3,668	5.3%
Villanova University	PA	Private College	3,642	5.3%
Duquesne University	PA	Private College	3,439	5.0%
Slippery Rock University of Pennsylvania	PA	Public College	3,323	4.8%
Robert Morris University	PA	Private College	3,203	4.7%
Lehigh University	PA	Private College	3,137	4.6%
Arcadia University	PA	Private College	2,928	4.3%
West Virginia University	WV	Public College	2,819	4.1%
La Salle University	PA	Private College	2,748	4.0%
Saint Joseph's University	PA	Private College	2,592	3.8%
Carnegie Mellon University	PA	Private College	2,511	3.6%
New York University	NY	Private College	2,507	3.6%
Widener University	PA	Private College	2,444	3.5%
East Stroudsburg University of Pennsylvania	PA	Public College	2,405	3.5%
University of Scranton	PA	Private College	2,063	3.0%
Boston University	MA	Private College	2,052	3.0%
Cornell University	NY	Private College	1,948	2.8%
University of Maryland: College Park	MD	Public College	1,927	2.8%
Ohio State University: Columbus Campus	ОН	Public College	1,880	2.7%
California University of Pennsylvania	PA	Public College	1,812	2.6%

Update on Official SAT Practice on Khan Academy

Driving Performance and Impact

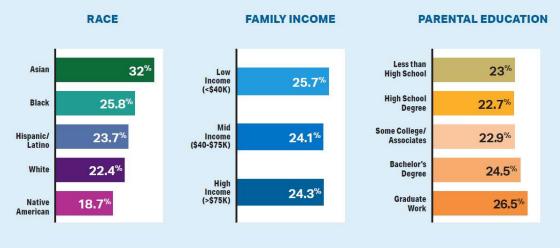
SATPRACTICE.org/k12



Usage Is Consistent Across Demographics

Roughly Equal Usage of Official SAT[°] Practice by Race, Family-Income Level, and Parental Education Level

Students with linked accounts proportional to the SAT test-taking population

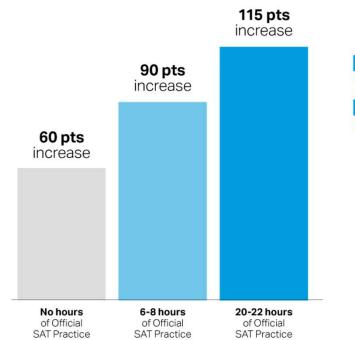


Data reflect students from the high school graduating class of 2017 who took the October 2015 PSAT/NMSQT^a and the new SAT through January of 2017, and the percentage within each subgroup who linked their College Board and Khan Academy accounts.

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SAT Score Improvements and Official SAT® Practice

Number of points gained from PSAT/NMSQT® to SAT correlated to hours spent practicing



16,000 students saw gains of 200 points or more

Based on 250,000 students from the Class of 2017

The College Board Opportunity Scholarships recognize students who take six key actions to prepare for college.

1. Build Your College List

Get started by exploring colleges you're interested in with BigFuture 孤. \$500 (600 scholarships)

2. Practice for the SAT®

Get ready for test day with Official SAT Practice on Khan Academy®. **\$1,000** (1,500 scholarships)

3. Improve Your Score

Show how practice pays off by improving your SAT score. **\$2,000** (150 scholarships)

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4. Strengthen Your College List

Make sure your college list has a mix of academic safety, fit, and reach schools. **\$500** (400 scholarships)

5. Complete the FAFSA

Fill out the free government form to apply for financial aid. **\$1,000** (800 scholarships)

6. Apply to Colleges

Apply to the schools you want to attend.

\$1,000 (500 scholarships)



Complete all six key actions to be eligible for the Complete Your Journey Scholarship \$40,000 (25 scholarships)

Key Takeaways & Resources for You

AP Credit Policy & Funding

We are in year two of the state of Pennsylvania dedicating state funds to further reduce the 2020 AP Exam fees for economically disadvantaged students. The final fee for any AP Exam is now \$20 per exam for students who qualify for the College Board AP Exam fee reduction.

Beginning this fall, students attending Pennsylvania State System of Higher Education (PASSHE) institutions, Pennsylvania public community colleges, and other Pennsylvania Transfer and Articulation Center (PA TRAC) member institutions, can now **receive college credit for Advanced Placement (AP) Exam scores of 3 and higher** and CLEP Exam scores of 50 and higher. Three out of five AP Exam takers report that an institution's AP policy and how much credit can be earned—impacts their college choice.

AP Exam takers have higher four-year graduation rates than non-AP Exam takers regardless of AP Exam score earned.

College Board Search

The College Board reaches millions of students every year through assessments like the SAT and courses like Advanced Placement. Since 1972, College Board's Student Search Service[®] has led the way in enabling student and college connections.

Among students who have opted into Search, students whose information is licensed through Search are:

- 23% more likely to send their SAT scores to a licensing college, and
- 22% more likely to enroll in a licensing college

(Compared to identical students who also met the college's Search criteria but were not licensed)

Participating in Search increases a student's college enrollment probability by 12%

Staff Development

We are happy to train partners across PA on being a voice for student opportunity and information on various items, including:

- Fee Waivers;
- Retesting;
- Official SAT Practice on Khan Academy;
- College Board Opportunity Scholarships;
- AP Potential;
- AP Classroom;
- Conversations about demographic shifts for your campus leaders;
- and more!



March 11–13, 2020 | Chicago, IL A Dream Deferred: The Future of African American Education Registration is now open.



April 23–24, 2020 | Las Vegas, NV Prepárate: Educating Latinos for the Future of America Registration is now open.



June 4–5, 2020 | Phoenix, AZ NASAI: Native American Student Advocacy Institute

Register Now

Register

Register

Thank You.

Cassandra Allen

Director, K-12 callen@collegeboard.org

Amanda Sohl

Director, HE Services asohl@collegeboard.org



October 26-28, 2020 | Las Vegas, NV College Board Forum 2020 The Call for Proposals is now open.

Propose a Session