



The 8th Annual

# AP<sup>®</sup> Report to the Nation

February 8, 2012

## About the Data

Because a central source of demographic data for nonpublic schools is not available for all states, this report represents public school students only. References to the total number of high school graduates represent projections supplied in *Knocking at the College Door* (Western Interstate Commission for Higher Education, 2008).

Additionally, this report looks at students' entire experience with AP — tracking exams taken by seniors throughout their high school career — as opposed to just reporting exam results from a particular calendar year.

Additional data are available exclusively online at [apreport.collegeboard.org](http://apreport.collegeboard.org).

# Table of Contents

2	<b>AP®: A Collaborative Community</b>
4	AP in a Classroom: Whitney M. Young Magnet School, Chicago Public Schools
6	AP in a District: Colton Joint Unified School District, Colton, California
8	AP in a University: University of Wisconsin–Madison
10	<b>Working Toward the Nation’s Goals, Together</b>
12	Increasing Rigor
16	Promoting Equity
24	Supporting STEM
26	<b>Strategies for Progress</b>
28	<b>Celebrating Equity and Excellence</b>
32	Appendix and Endnotes

**The AP<sup>®</sup>  
Experience in:  
A Classroom  
A District  
A University**

**““ The AP courses that I completed helped me build the confidence and acquire the knowledge that is necessary to dive into college. ””**

**Zachary Stuart, Former AP Student and Stanford University Freshman**



# **AP<sup>®</sup>: A Collaborative**

In classrooms around the country, AP teachers are preparing students for tomorrow by teaching them how to think and learn today. AP students learn to construct solid arguments, test theories, and see many sides of an issue — the kind of thinking that solves tough problems both in and outside the classroom, in college and beyond.

AP Coordinators, counselors, principals, and district officials support AP teachers by providing professional development opportunities and other crucial resources. They offer a broad range of AP courses and exams so that motivated students can develop their passions and talents — whether they're interested in art, history, languages, literature, math, or science.

At colleges and universities, the collaboration continues. College faculty review syllabi, develop AP course and exam content, score exams, and perform research to ensure that the exams assess a college level of achievement. Admission officials recognize the achievement of AP students, who demonstrate through successful exam scores that they are ready for the challenge of higher education

and can, in turn, contribute new thoughts and ideas to the communities at their colleges and universities.

On the following pages, you'll hear from some of the people who make this collaboration successful and who have demonstrated a commitment to both equity and excellence in the classroom.

**What do the data show?**

**903,630**

U.S. public high school graduates took at least one AP Exam

**128,568**

U.S. public high school teachers taught an AP course

**21,328**

AP Coordinators, counselors, and principals administered AP Exams or used AP data to shape their schools' programs

**5,808**

college faculty participated in reviewing AP teachers' syllabi, developing curricula, or scoring AP Exams

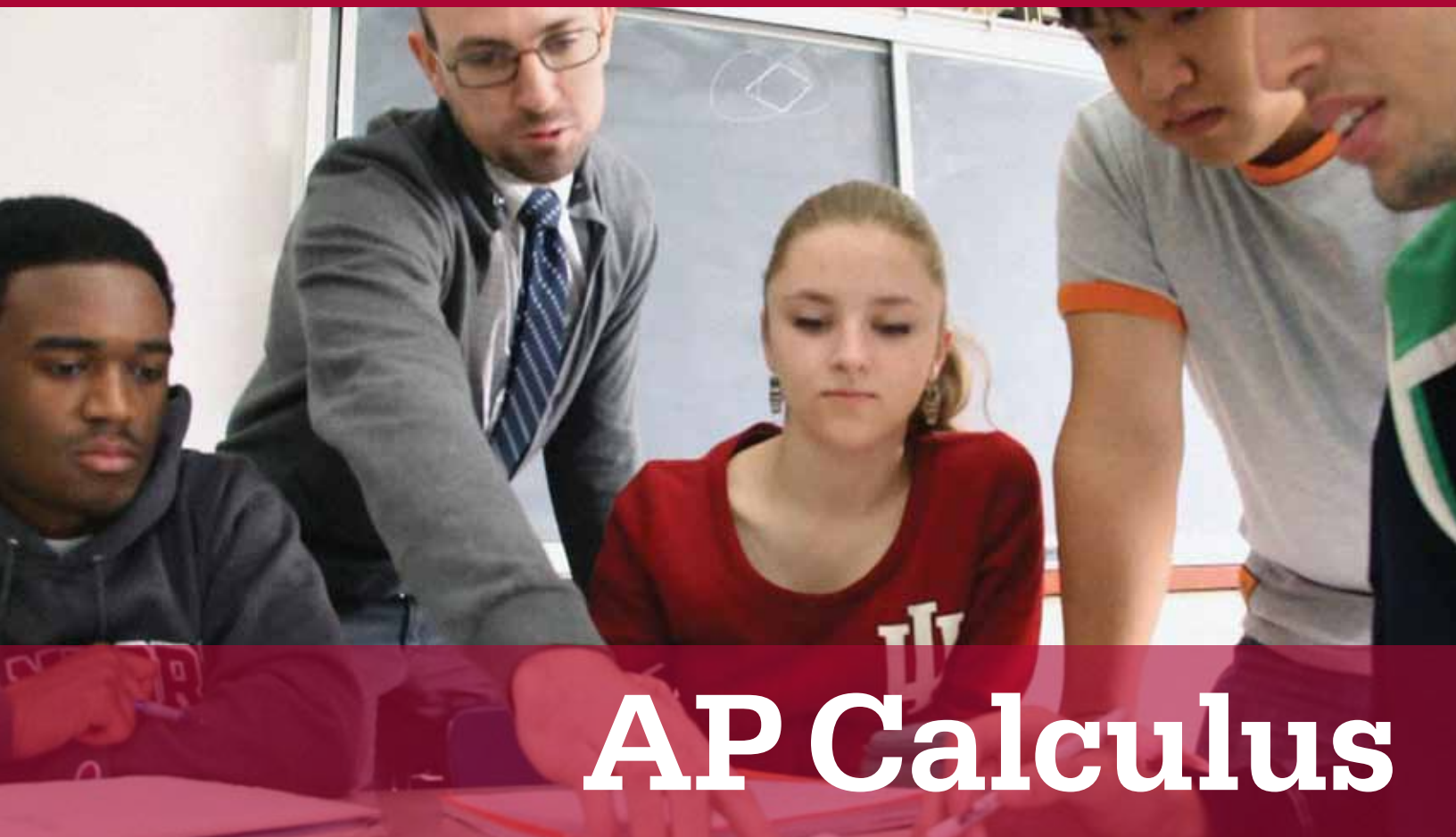
# Community

**The AP  
Experience in:**

**A Classroom  
A District  
A University**

“ To me, it’s about creating an environment where students feel safe and relaxed and are able to be themselves and interact with each other. ”

**Matthew Moran, AP Calculus Teacher**



# AP Calculus

**Whitney M. Young Magnet School  
Chicago Public Schools  
Chicago, Illinois**

At Whitney M. Young Magnet School in Chicago, AP Calculus teacher Matthew Moran works hard to create a collaborative environment where students are challenged and inspired. Zachary Stuart, who graduated from Whitney Young in 2011, fondly recalls Mr. Moran’s enthusiasm for math and his ability to develop creative assignments that effectively prepared him for the AP Exam. Now in his freshman year at Stanford University, where he plans to major in mechanical engineering, Zachary attributes much of his academic success to AP: “The AP courses that I completed helped me build the confidence and acquire the knowledge that is necessary to dive into college.”

Mr. Moran said, “There were a lot of classes in these kids’ history where mathematics was boring — a lot about formulas and getting to the right answer. That’s not what we do in my class ... Mathematics is fascinating and it’s useful. And we talk about how useful it is and the applications.”

But Mr. Moran’s class is popular not only because he promotes the practical applications of calculus.

**What do the data show?**

**202,725**

U.S. public high school graduates took AP Calculus AB

**4,952**

U.S. public high school teachers taught AP Calculus AB in 2010-11

# Classroom

“To me, it’s about creating an environment where students feel safe and relaxed and are able to be themselves and interact with each other,” he said. “It takes a long time to foster that community in my classroom, but when we finally get there, it’s really a good feeling.”

---

To see interviews with Zachary Stuart and Matthew Moran, visit [apreport.collegeboard.org](http://apreport.collegeboard.org).

**The AP  
Experience in:**  
A Classroom  
A District  
A University

“ We have a lot of teachers who have graduated from our district, myself included, that have gone to college and have come back and ... have provided the connection to the students they are currently serving. ”

Jerry Almendarez, Superintendent



# Colton Joint Unified

Colton, California

Colton Joint Unified School District was selected by the College Board as an AP District of the Year last year — honored for increasing access to AP course work while simultaneously increasing the percentage of students earning scores of 3 or higher on AP Exams.

Jerry Almendarez, superintendent for Colton Joint Unified School District, attributes Colton’s success to its teachers, who serve as role models, offering students real-life examples of how to prepare for college, earn their degrees, and fulfill their dreams for the future. “We have a lot of teachers who have graduated from our district, myself included, that have gone to college and have come back and ... have provided the connection to the students they are currently serving,” said Almendarez. “There are a lot of caring people here who care not only for improving [the] students’ academic performance but also for the human being.”

This special connection has paid off. Ignacio Cabrera, principal of Bloomington High School in Colton, proudly reported that “one of the programs that has excelled is our math program. We’ve

# School District

had a three-year run of over 98 percent of our students succeeding — and the thing that is really unusual ... is that 100 percent succeeded just this past year.”

---

To see interviews with educators from Colton and another AP District of the Year — New Jersey’s West New York School District — visit [apreport.collegeboard.org](http://apreport.collegeboard.org).

**What do the data show?**

**540,619**

U.S. public high school graduates scored a 3 or higher

**12,926**

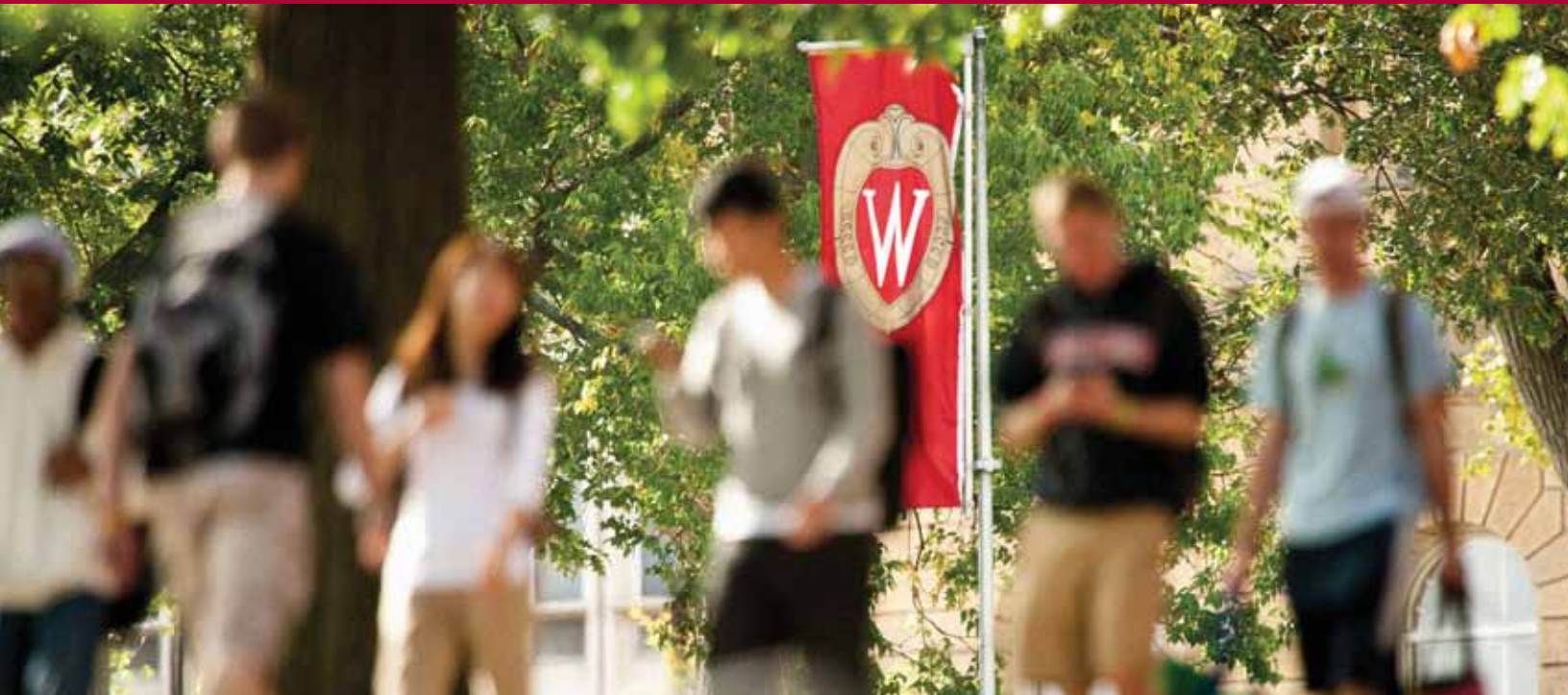
U.S. public high schools were represented by AP Exam-takers in the class of 2011

**The AP  
Experience in:**

**A Classroom  
A District  
A University**

“ [AP courses on a student’s transcript] tell us that they’re challenging themselves ... preparing for the rigor that they will encounter at the University of Wisconsin–Madison. These students are going to be the most successful. ”

**Bobbie Jean St. Arnauld, Freshman Admissions Manager**



# University of

**Madison, Wisconsin**

In 2011, 75 percent of all freshmen entering the University of Wisconsin–Madison came with AP scores — a record high — illustrating heightened competitiveness for the university. Bobbie Jean St. Arnauld, freshman admissions manager at UW–Madison, said that AP courses on students’ transcripts “tell us that they’re challenging themselves ... preparing for the rigor that they will encounter at the University of Wisconsin–Madison. These students are going to be the most successful.”

In 2009, UW–Madison conducted a research study to further explore the value of AP.<sup>1</sup> Joanne Berg, vice provost for enrollment management, said the study was done “to demystify some of the things we were hearing from faculty members.” She said the study showed “that students who took AP credits ... were able to graduate sooner than other students, ... were able to start advanced courses sooner, and actually free up courses for other students who weren’t able to take AP credits.”

For Gloria Mari-Beffa, professor of mathematics, the study revealed that “students who came with a 3, 4, or 5 on the exams were doing as well or better than those taking our classes and exams. So we used that data to adjust our credit evaluation.”

**What do the data show?**

**616,412**

U.S. public high school graduates reported AP scores to colleges and universities

**3,728**

U.S. colleges and universities received AP scores for credit, placement, and/or consideration in the admission process

# Wisconsin–Madison

AP Reader Charles J. James, professor of German, said, “I worked every summer with teachers who teach AP, and my impression is that their courses are just as rigorous as the courses that we place students into here.”

.....  
To see interviews with administrators and faculty from UW–Madison, visit [apreport.collegeboard.org](http://apreport.collegeboard.org).

# Working Toward the Nation's Goals, **Together**

In 2008, the College Board set an ambitious national goal: to increase the percentage of 25- to 34-year-olds who hold an associate degree or higher to 55 percent by 2025.<sup>2</sup> The resulting College Completion Agenda is part of a growing national conversation about reestablishing the United States' position as a global leader in education and ensuring its future prosperity.<sup>3</sup> Three goals are critical to this effort:

- Increasing rigor;
- Promoting equitable access to college-level academic experiences; and
- Supporting science, technology, engineering, and math (STEM) education.

As you'll see on page 17, one obstacle to achieving all three goals — in particular, promoting equity — is a troubling opportunity gap among some of the nation's most promising students.

Success is rarely the result of just one element, and AP isn't a comprehensive solution. But AP — and the dedication and hard work of the students and educators who comprise its collaborative community — is one key ingredient in a larger recipe to support all three of these goals.

## Increasing Rigor

A startling number of students entering college need remediation once they get there. If the U.S. is going to meet the goal of equipping more students to succeed in college, schools need to provide motivated students with preparation for and access to demanding, college-level work in high school.

**Why is this important?**

**37.6%**

of first- and second-year undergraduate students require remediation<sup>4</sup>

## Promoting Equity

Despite strides made in recent years, minority and low-income students remain underrepresented not only in the AP classroom and in the population of successful AP students but also among Americans with a college degree.

**19.2%**

of Hispanic/Latino 25- to 34-year-olds have an associate degree or higher<sup>5</sup>

## Supporting STEM

Science, technology, engineering, and math (STEM) education plays a key role in ensuring the nation's long-term prosperity. According to a 2009 study of 65 countries, the U.S. ranked 23rd in science proficiency and 31st in math.<sup>6</sup> AP science and math courses and exams are one way the nation can regain its lead.

**18.0%**

of 12th-grade students perform at or above the proficient level in science<sup>7</sup>

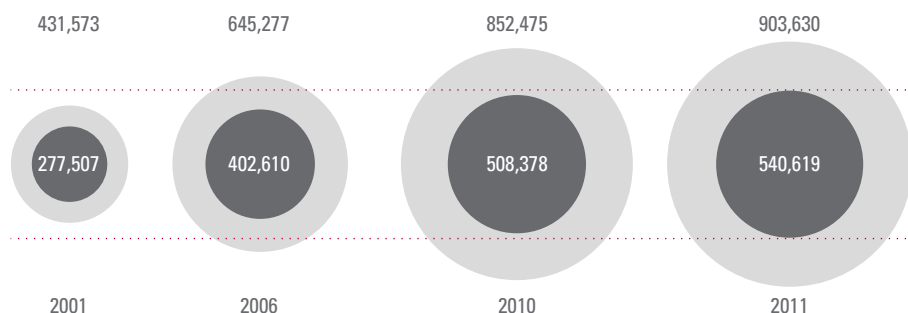
# Increasing Rigor

AP teachers encourage their students to do more, to think more deeply, and to always ask “Why?” — habits and skills crucial for college success. AP may not be right for every student, and it’s not the only answer to increasing rigor in the nation’s classrooms, but it’s a key tool to foster a college-going and college-ready culture.

Over the last 10 years, more students than ever before have challenged themselves by engaging in rigorous, college-level AP course work in high school. With that growth in participation, many states have seen a comparable increase in students succeeding on AP Exams. Other states continue to work diligently to close the gap between participation and performance. Together, we’ll continue to make progress. Turn to pages 26 and 27 for strategies that schools, districts, states, and higher education institutions can use to increase rigor and ensure that the nation’s students are prepared for college success.

**Figure 1: Number of graduates taking and scoring a 3 or higher on an AP Exam**

- Number of graduates leaving high school having taken an AP Exam
- Number of graduates scoring 3+ on an AP Exam at any point in high school

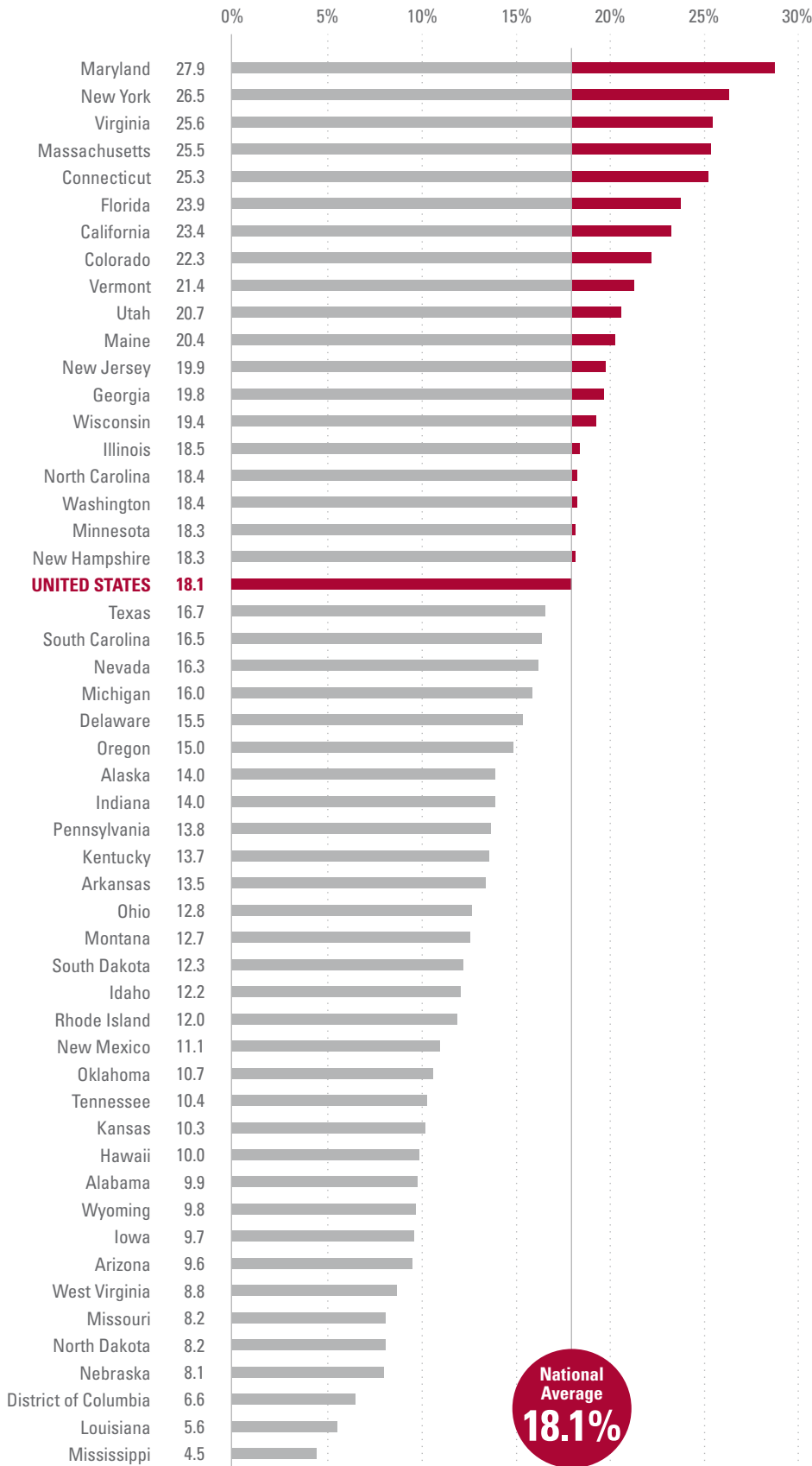


**What do the data show?**

**More graduates**

are succeeding on AP Exams today than took AP Exams in 2001

**Figure 2: Percentage of the class of 2011 scoring a 3 or higher on an AP Exam during high school**



**What do the data show?**

**18.1%**

of U.S. public high school graduates took AP courses and scored a 3 or higher on an AP Exam during high school

**19**

states exceeded the national average of graduates scoring a 3 or higher

**27.9%**

of Maryland's graduates scored a 3 or higher on an AP Exam, leading the nation

**National Average**  
**18.1%**

Raw numbers for this figure are available in Appendix A. Ties are alphabetized by state name.

**Figure 3: Percentage of the classes of 2001 and 2011 scoring a 3 or higher on an AP Exam during high school, ranked by percentage point change**

	Change	2001 %	2011 %	
10 points	Maryland	13.1	14.8	27.9
	Massachusetts	10.9	14.6	25.5
	Connecticut	10.8	14.5	25.3
	Florida	10.5	13.4	23.9
	Minnesota	9.7	8.6	18.3
	Maine	9.6	10.8	20.4
	Vermont	9.5	11.9	21.4
	Washington	9.3	9.1	18.4
	Arkansas	9.1	4.4	13.5
	Virginia	9.1	16.5	25.6
	Colorado	9.0	13.3	22.3
	Georgia	9.0	10.8	19.8
	Wisconsin	8.6	10.8	19.4
	New Hampshire	8.1	10.2	18.3
	Nevada	7.9	8.4	16.3
	New York	7.8	18.7	26.5
	Kentucky	7.7	6.0	13.7
	California	7.5	15.9	23.4
	Illinois	7.5	11.0	18.5
	Oregon	7.5	7.5	15.0
Delaware	7.4	8.1	15.5	
Indiana	7.4	6.6	14.0	
<b>UNITED STATES</b>	<b>7.3</b>	<b>10.8</b>	<b>18.1</b>	
Michigan	7.1	8.9	16.0	
New Jersey	6.6	13.3	19.9	
Texas	6.2	10.5	16.7	
South Dakota	6.0	6.3	12.3	
North Carolina	5.8	12.6	18.4	
Rhode Island	5.8	6.2	12.0	
Alabama	5.7	4.2	9.9	
Idaho	5.6	6.6	12.2	
Montana	5.6	7.1	12.7	
Ohio	5.6	7.2	12.8	
Kansas	5.2	5.1	10.3	
Pennsylvania	5.0	8.8	13.8	
5 points	Iowa	4.7	5.0	9.7
	South Carolina	4.7	11.8	16.5
	Nebraska	4.6	3.5	8.1
	New Mexico	4.6	6.5	11.1
	Oklahoma	4.5	6.2	10.7
	Alaska	4.3	9.7	14.0
	Wyoming	4.2	5.6	9.8
	Missouri	4.1	4.1	8.2
	West Virginia	3.9	4.9	8.8
	Hawaii	3.8	6.2	10.0
	Utah	3.8	16.9	20.7
	Louisiana	3.7	1.9	5.6
	North Dakota	3.4	4.8	8.2
	Tennessee	3.4	7.0	10.4
	Arizona	3.0	6.6	9.6
0 points	Mississippi	1.8	2.7	4.5
	District of Columbia	-0.2	6.8	6.6

**What do the data show?**

**7.3**

point increase since 2001 in the percentage of U.S. public high school graduates earning AP scores of 3 or higher

**22**

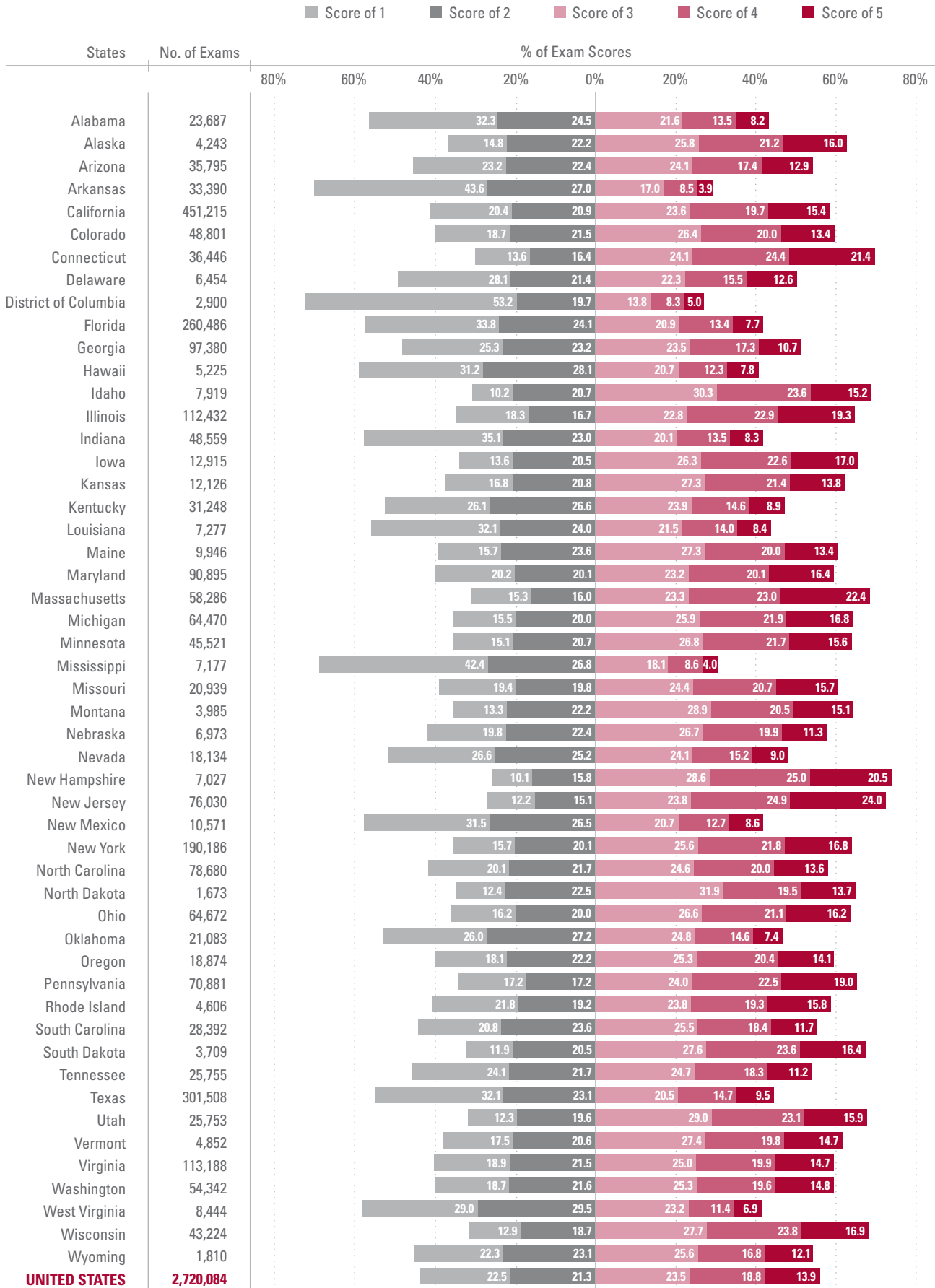
states had a larger percentage point change over time than the national average

**13.1**

point increase in the percentage of Maryland's graduates scoring a 3 or higher on an AP Exam over the past 10 years, leading the nation

Raw numbers for this figure are available in Appendix A. Ties are alphabetized by state name.

Figure 4: Score distributions of AP Exams taken by the class of 2011 during high school

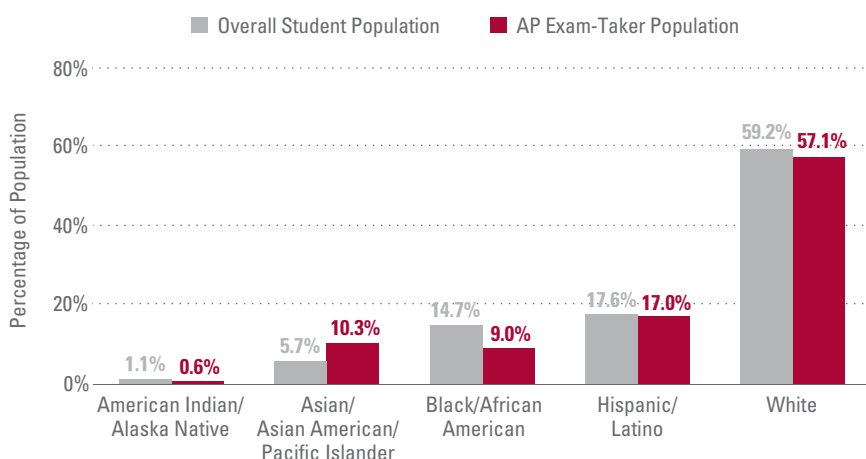


# Promoting Equity

The numbers of traditionally underserved students participating and succeeding in AP are increasing, in large part because of the kinds of efforts made by the students and educators you heard from on pages 4–9.

However, underserved minority<sup>8</sup> and low-income students remain underrepresented in AP classrooms, and we continue to face challenges in transforming the educational experiences of underserved students in this country. Schools that serve significant populations of minority and low-income students need support, including more professional development opportunities for teachers, and a focus on differentiated instruction and access to rigorous course work for students. Simply expanding access to AP is not enough to promote equity; schools must expand access within a framework that supports teachers to help these students succeed. On pages 26 and 27, you’ll find strategies for supporting teachers and giving underserved students the confidence, encouragement, and preparation they need — both to take the AP challenge and to succeed at it.

**Figure 5: Demographics of the class of 2011 versus AP Exam-takers**



**What do the data show?**

**Black/African American graduates** were the most underrepresented group in AP classrooms

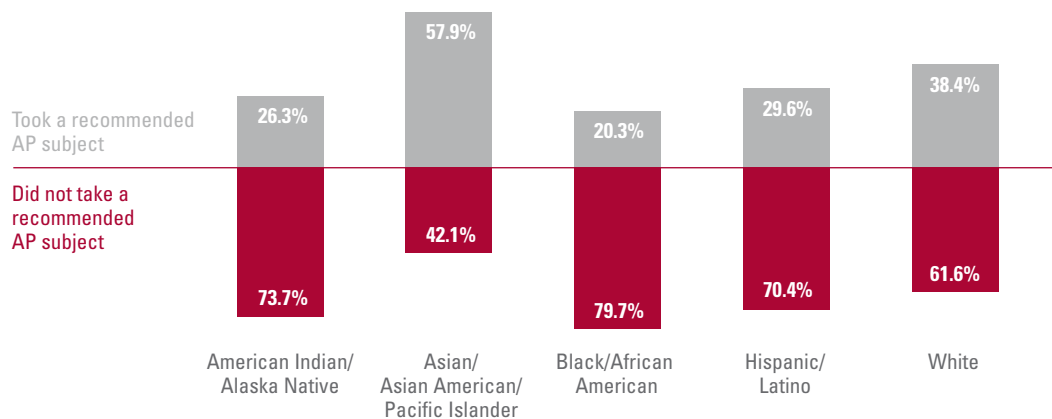
Note: Because some AP Exam-takers identify themselves as “Other” for race/ethnicity or do not provide race/ethnicity, the “AP Exam-Taker Population” in this figure only represents a total of 94.0% of all AP Exam-takers.

# Fulfilling AP Potential

Ensuring that students realize their full potential is a critical component to achieving the nation’s education goals. The College Board is committed to working with educators to help provide all students with potential for success in AP — regardless of location, ethnicity, or socioeconomic status — an opportunity to maximize their college years by having successful AP experiences.

While many schools and districts have worked to increase access to AP, hundreds of thousands of prepared students were either left out of an AP subject for which they had potential or attended a school that did not offer the subject. An analysis of nearly 771,000 graduates with AP potential found that nearly 478,000 (62 percent) did not take a recommended AP subject. Underserved minorities appear to be disproportionately impacted: 74 percent of American Indian/Alaska Native students, 80 percent of black/African American students, and 70 percent of Hispanic/Latino students did not take the recommended AP subject.<sup>9</sup>

**Figure 6: Participation in recommended AP subjects by race/ethnicity of graduates with AP potential**



**Four out of five**

black/African American graduates were either left out of an AP subject for which they had potential or attended a school that did not offer the subject

**Figure 7: AP equity and excellence for underserved students**

**Black/African American**

### Defining equity and excellence

How well each state is enabling the diversity of its students to succeed in AP can be measured by comparing the demographics of that state with the demographics of its successful AP population.

For example, in the class of 2011:

if there are **1,000 students**, and **250 students (25%)** are **Hispanic/Latino**,

and if **500 students score a 3 or higher** on an AP Exam,

then **125 Hispanic/Latino students (25%)** must score a 3 or higher on an AP Exam in order to achieve **100% equity and excellence**.

### Measuring equity and excellence

The tables at right chart each state's, and the nation's, progress toward achieving equity and excellence. For each state, there are three numbers for each race/ethnicity:

**Hispanic/Latino**

State Name	% of Graduating Class 2011	% of Successful AP Exam-Takers in Graduating Class 2011	% of Equity and Excellence Achieved
	25.0	25.0	100

$$25.0 \div 25.0 = 100$$

Percentage of the successful AP Exam-takers in the class of 2011 who are Hispanic/Latino

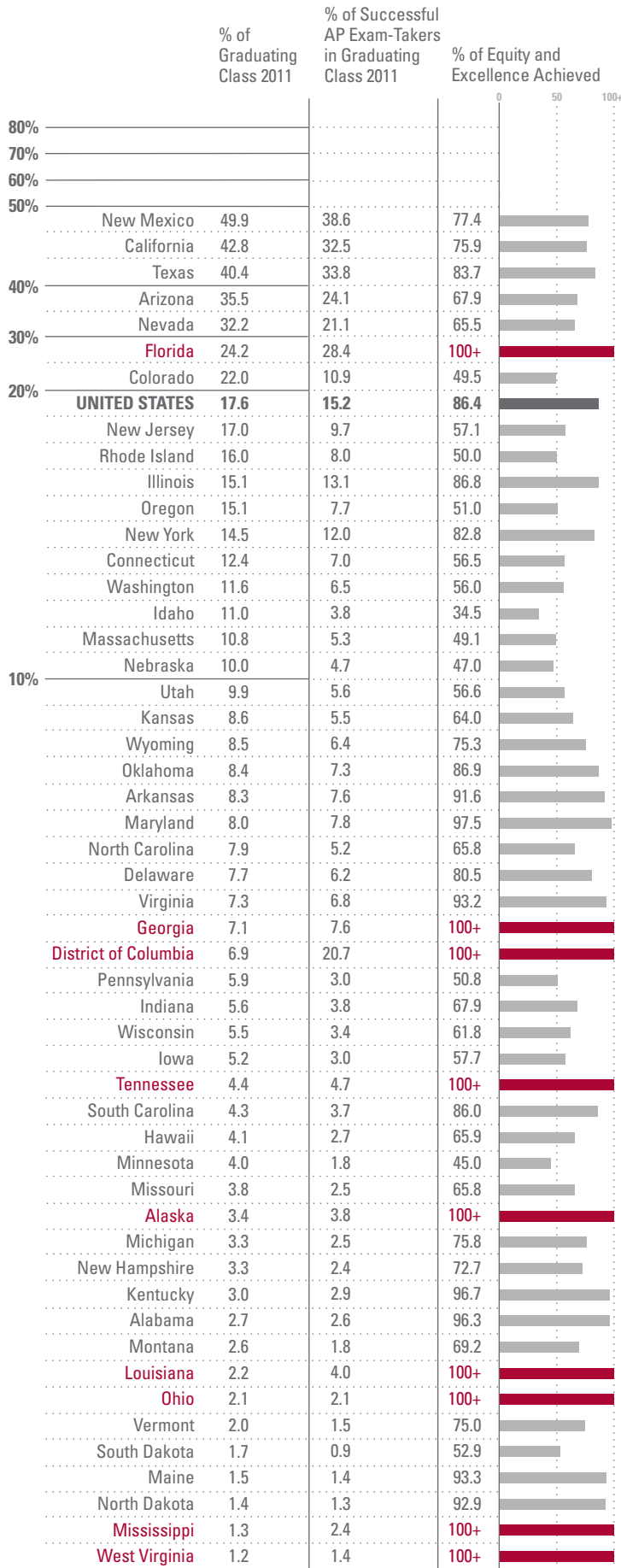
Percentage of the class of 2011 who are Hispanic/Latino

Progress toward achieving AP equity and excellence for Hispanic/Latino students

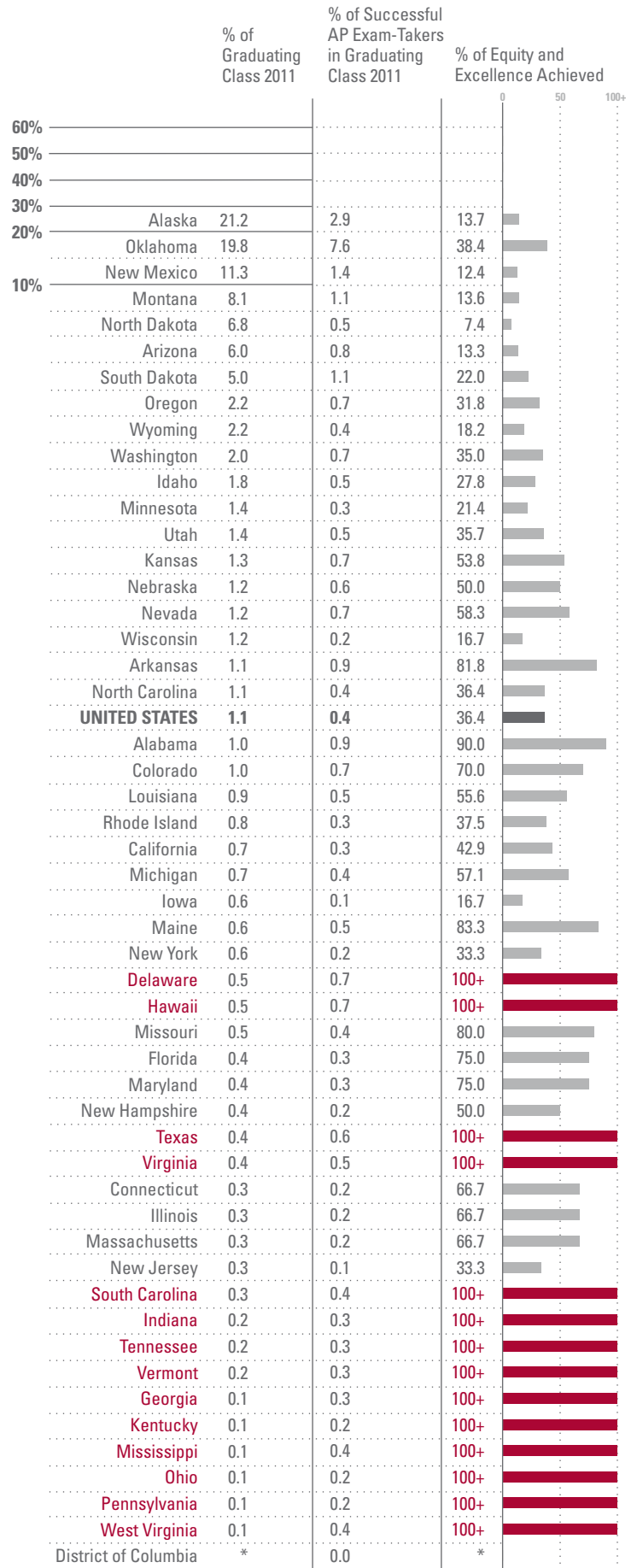
	% of Graduating Class 2011	% of Successful AP Exam-Takers in Graduating Class 2011	% of Equity and Excellence Achieved
District of Columbia	90.0	33.7	37.4
Mississippi	50.3	10.9	21.7
South Carolina	37.9	8.0	21.1
Maryland	35.7	10.8	30.3
Georgia	35.1	12.6	35.9
Louisiana	33.7	9.9	29.4
Alabama	32.4	10.2	31.5
Delaware	30.1	7.8	25.9
North Carolina	29.9	6.8	22.7
Virginia	24.4	6.6	27.0
Tennessee	21.8	7.8	35.8
Arkansas	21.1	5.3	25.1
Florida	20.1	7.1	35.3
Missouri	16.8	3.3	19.6
Illinois	16.0	4.3	26.9
Michigan	16.0	2.2	13.8
New Jersey	16.0	3.2	20.0
Texas	15.8	4.3	27.2
New York	15.3	4.4	28.8
<b>UNITED STATES</b>	<b>14.7</b>	<b>4.1</b>	<b>27.9</b>
Pennsylvania	14.0	2.6	18.6
Ohio	13.8	2.9	21.0
Connecticut	11.9	2.8	23.5
Nevada	11.2	3.0	26.8
Oklahoma	10.1	3.3	32.7
Kentucky	9.9	3.2	32.3
Indiana	9.5	2.5	26.3
Rhode Island	8.9	1.7	19.1
Massachusetts	7.2	2.4	33.3
California	6.9	2.1	30.4
Kansas	6.8	2.6	38.2
Wisconsin	6.6	1.2	18.2
Minnesota	6.3	1.7	27.0
Arizona	6.0	2.2	36.7
Colorado	5.8	1.7	29.3
Nebraska	5.7	1.7	29.8
Washington	4.9	1.8	36.7
Iowa	4.8	0.9	18.8
West Virginia	4.7	1.6	34.0
Alaska	3.9	2.1	53.8
Maine	2.5	1.0	40.0
New Mexico	2.5	1.0	40.0
Oregon	2.4	1.0	41.7
New Hampshire	2.0	0.5	25.0
Hawaii	1.9	1.0	52.6
North Dakota	1.8	0.4	22.2
Vermont	1.6	0.8	50.0
South Dakota	1.2	0.7	58.3
Utah	1.2	0.5	41.7
Wyoming	1.1	0.4	36.4
Idaho	0.7	0.5	71.4
Montana	0.7	0.1	14.3

\*Precise number of American Indian/Alaska Native graduates for the District of Columbia is not available.

### Hispanic/Latino



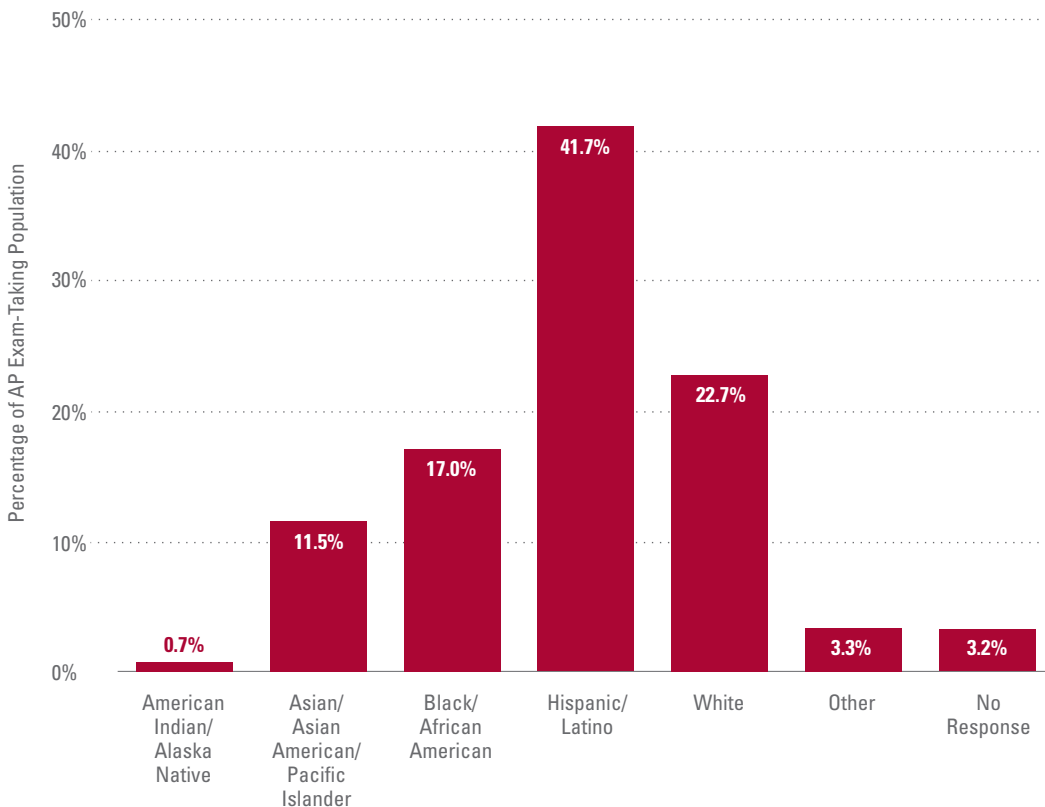
### American Indian/Alaska Native



A Closer Look at AP Students

# Low Income

Figure 8a: Demographics of low-income AP Exam-takers from the class of 2011



**59.4%**

of low-income AP Exam-takers in the class of 2011 were from underserved minority groups

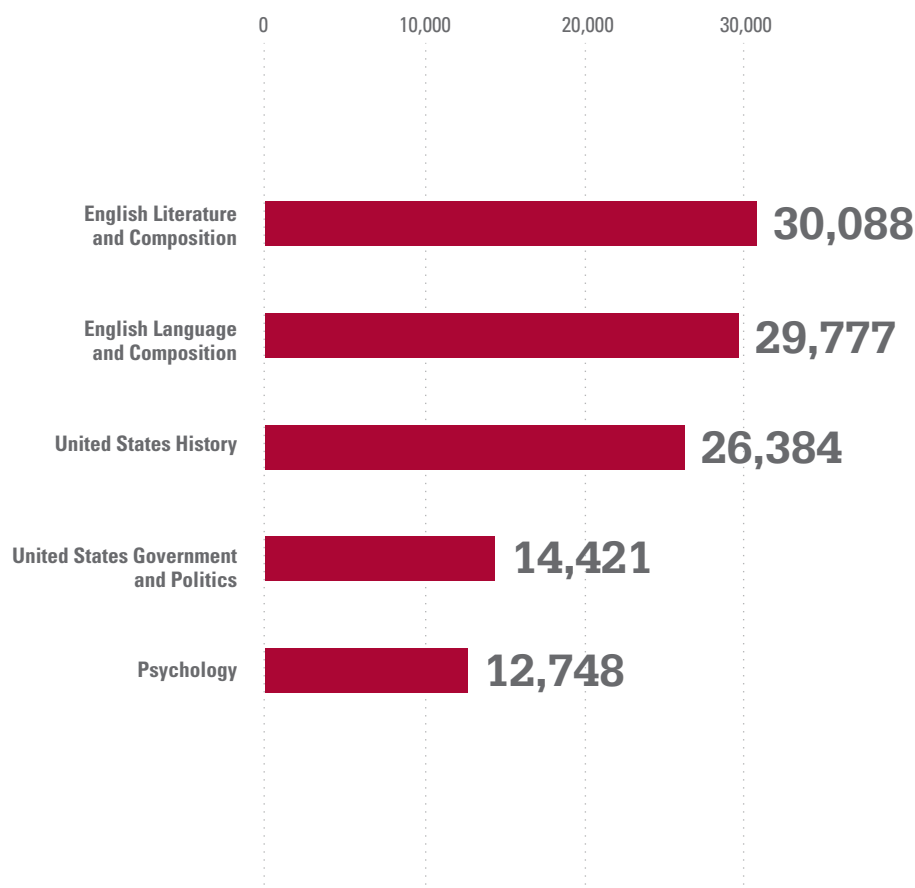
**612,282**

AP Exams were taken by low-income graduates

## A Closer Look at AP Students

# Black/African American

Figure 8b: Top five most popular AP Exams taken by black/African American graduates



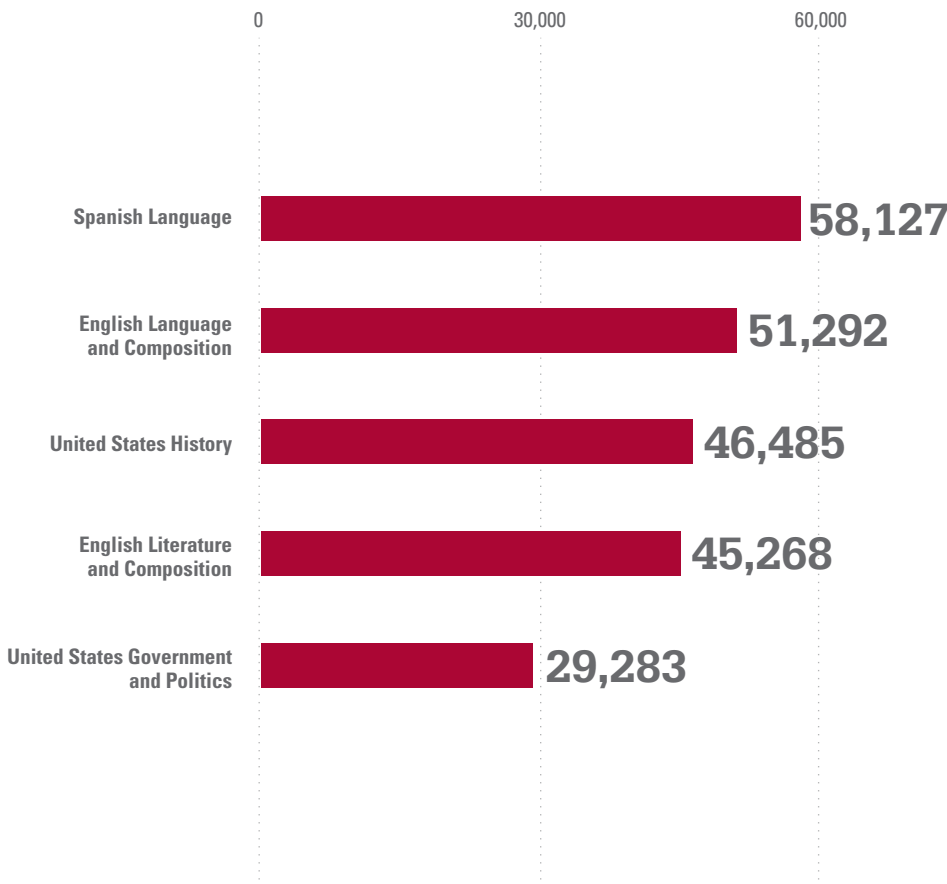
**81,215**  
black/African  
American graduates  
took an AP Exam  
during high school

**Over half**  
of black/African  
American AP Exam-  
takers in the class  
of 2011 were from  
California, Florida,  
Georgia, Maryland,  
New York, or Texas

A Closer Look at AP Students

# Hispanic/Latino

Figure 8c: Top five most popular AP Exams taken by Hispanic/Latino graduates



**153,407**

Hispanic/Latino graduates took an AP Exam during high school

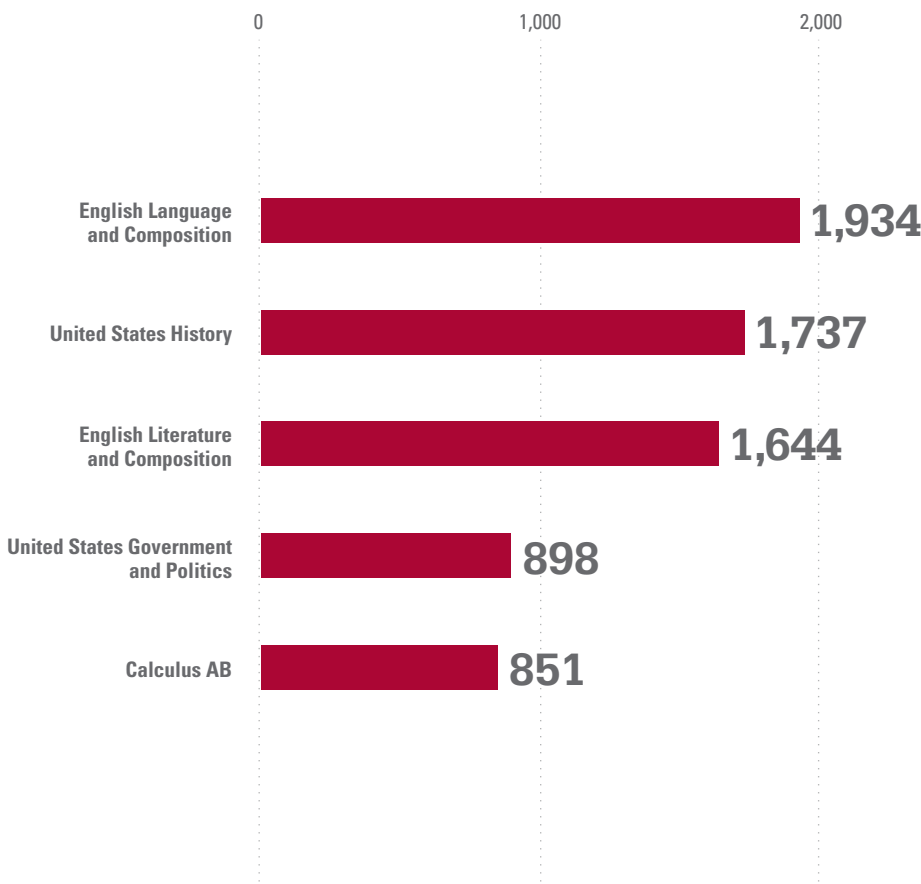
**5.9%**

of Hispanic/Latino AP Exam-takers in the class of 2011 took AP Spanish Language before taking other AP Exams

A Closer Look at AP Students

# American Indian/ Alaska Native

Figure 8d: Top five most popular AP Exams taken by American Indian/Alaska Native graduates



**5,108**

American Indian/  
Alaska Native  
graduates took an  
AP Exam during  
high school

**Half**

of American Indian/  
Alaska Native  
AP Exam-takers in  
the class of 2011  
were from Arizona,  
California, Florida,  
New Mexico,  
Oklahoma, or Texas

# Supporting STEM

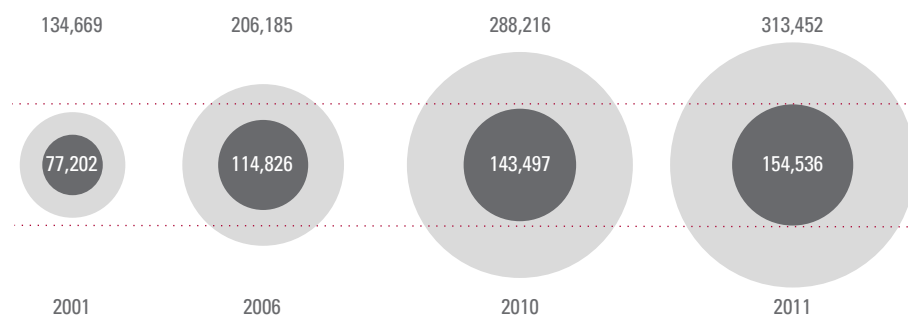
We need to support student engagement and success in STEM subjects today to ensure an innovative and healthy society tomorrow. AP STEM courses and exams — and the kinds of critical thinking, experimentation, and problem-solving they cultivate — support national efforts to increase student achievement in these critical subjects.

Participation and success in AP STEM subjects have increased over the last 10 years, but our work isn't done. To ensure that more students succeed in these subjects, we need to continue to work with schools, districts, states, and higher education institutions to provide more opportunities to prepare students for the challenges of these subjects in middle school and the early high school years. Turn to pages 26 and 27 for strategies to support STEM.

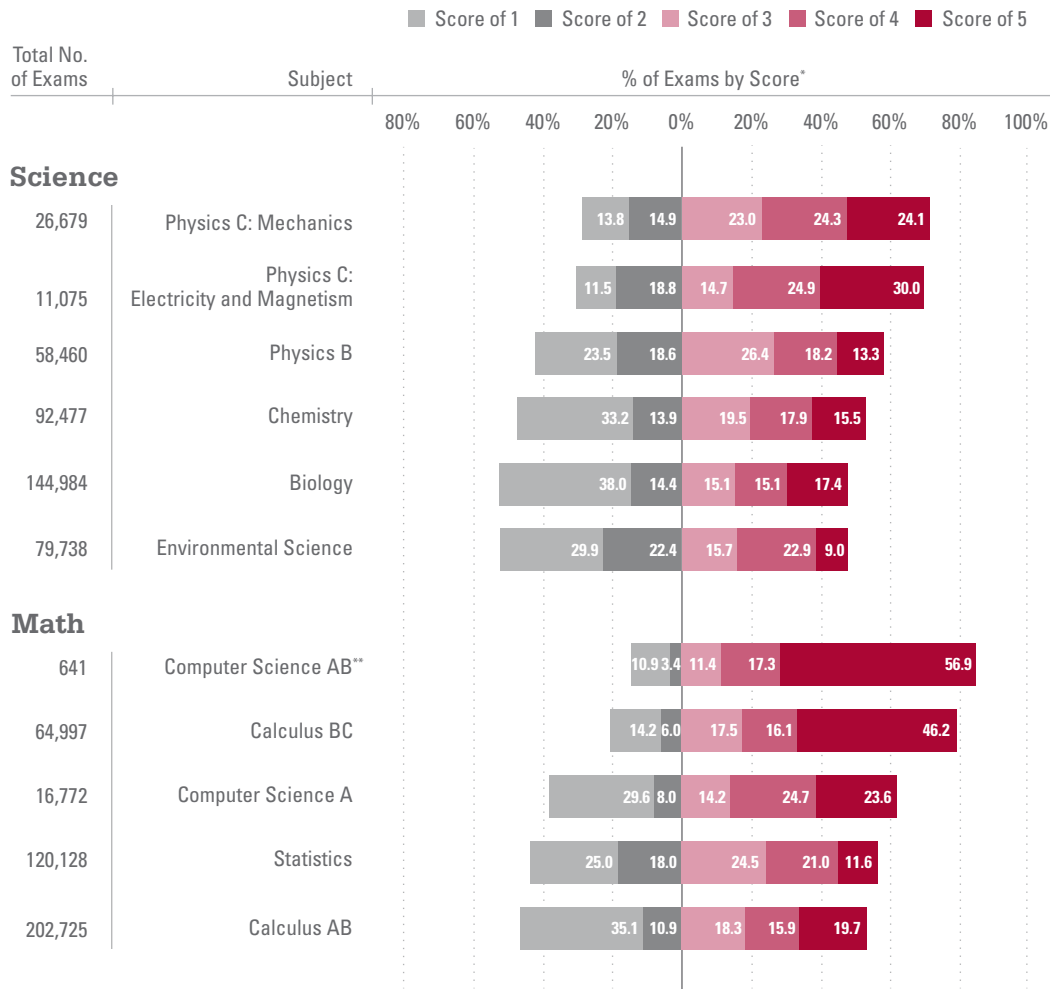
**Figure 9a: Numbers of graduates taking and scoring a 3 or higher on an AP science exam**

- Number of graduates leaving high school having taken an AP science exam
- Number of graduates scoring 3+ on an AP science exam at any point in high school

## Science



**Figure 10: Score distributions of AP STEM exams taken by the class of 2011 during high school**



\* Due to rounding, percentages do not always add up to 100.0.  
 \*\*This exam was last offered in May 2009.

**What do the data show?**

**27.6%**  
 of AP Exam-takers in the class of 2011 scored a 3 or higher on a STEM exam

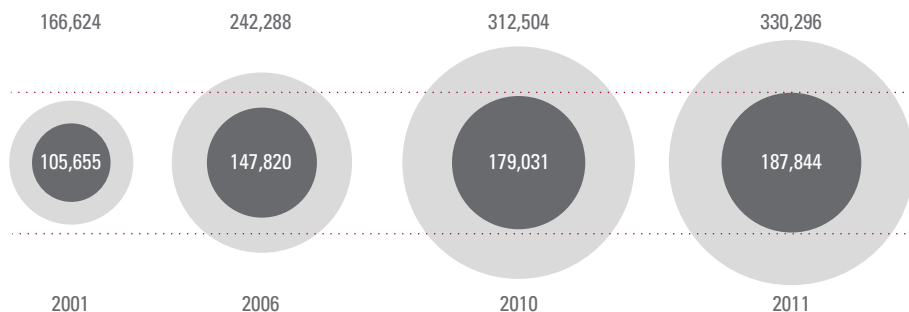
**Three**  
 AP STEM exams had 5 as the most common score

**Five**  
 AP STEM exams had an average score of 3 or higher

**Figure 9b: Numbers of graduates taking and scoring a 3 or higher on an AP math exam**

- Number of graduates leaving high school having taken an AP math exam
- Number of graduates scoring 3+ on an AP math exam at any point in high school

**Math**



**More graduates**  
 are succeeding on AP STEM exams today than took these exams in 2001

# Strategies for Progress

## Increasing Rigor

### School

- Use AP Instructional Planning Reports to target areas for increased attention and focus in the curriculum.
- Adopt rigorous academic standards that provide a vertically aligned progression of content and skills anchored in AP.
- Develop plans to recruit, retain, train, and mentor new and less experienced AP teachers.
- Use AP Potential™<sup>10</sup> to identify students at your school who are likely to succeed in AP courses. Where there are sufficient numbers of potential students for particular subjects, use these data to select new AP courses to offer.

### District

- Implement summer programs (e.g., summer “boot” or “boost” camps) to help students prepare for specific AP courses.
- Create networks where teachers and administrators in your district can collaborate to improve instruction and student success.
- Establish district-level AP Vertical Teams®<sup>11</sup> that meet at least four times per academic year.
- Use AP Potential to identify students in your district who are likely to succeed in AP courses. Where there are sufficient numbers of potential students for particular subjects, use these data to select new AP courses to offer.

## Promoting Equity

- Offer emotional and academic support to students through targeted peer mentoring, counseling, tutoring, and summer transition programs.
- Use AP Potential to identify minority and low-income students at your school who are likely to succeed in AP.
- Use AP Potential results to invite students and parents from particular underserved backgrounds to targeted sessions of your school’s AP night that highlight your school’s course offerings. Have older students from similar backgrounds who have had successful AP experiences speak at these sessions.

- Require secondary schools to review current AP course enrollment practices to ensure that all students have access to academic pathways that will prepare them for AP. Leverage AP Potential to help eliminate gatekeeping mechanisms such as entrance exams.
- Review districtwide student data to ensure proportionate AP enrollment, number of exams taken, course grades, and AP Exam scores.
- Use AP Potential to identify minority and low-income students in your district who are likely to succeed in AP.

## Supporting STEM

- Establish and support after-school activities and clubs related to STEM (e.g., robotics club, math competitions). Ensure that recruitment efforts for these programs reach female students and other students traditionally underrepresented in math and science.
- Get students involved and energized. Encourage teachers to continually demonstrate real-world applications of STEM concepts, and give students hands-on learning experiences earlier and more often.
- Use AP Potential to identify students at your school who are likely to succeed in AP math and science. Where there are sufficient numbers of potential students for particular subjects, use these data to select new math and science course offerings.

- Implement grade-weighting policies for pre-AP and AP STEM classes, starting as early as the sixth grade.
- Use AP Potential to identify students in your district who are likely to succeed in AP math and science. Where there are sufficient numbers of potential students for particular subjects, use these data to select new math and science course offerings.
- Provide at least four opportunities per year for pre-AP and AP STEM teachers to vertically align their courses with the skills necessary for success in AP STEM subjects.
- Establish a program for pre-AP science classes that incorporates and develops the laboratory-based skills necessary for success in AP science.

We hope schools, districts, states, and colleges and universities will consider the following strategies for increasing rigor, promoting equity, and supporting STEM education in high school classrooms.

## State

- Set a clear, measurable statewide goal for AP participation and success.
- Establish AP participation and performance indicators on state report cards.
- Require high schools or districts in your state to offer a minimum number of AP courses, either through traditional or online delivery models. Use the AP Course Ledger<sup>12</sup> to measure progress toward that mandate.
- Vertically align pre-AP and AP courses in your state with common core standards or your individual state's standards.

- Provide targeted assistance and resources to schools serving traditionally underserved populations: for example, funding for materials, supplies, outreach efforts, and tutoring programs.
- Build teacher capacity in schools serving traditionally underserved populations by requiring AP teachers to complete content-specific professional development during their first year and to update their training regularly. Make funding available for traveling to and attending professional development events.
- Vertically align pre-AP and AP courses in your state with common core standards or your individual state's standards. Alignment with core standards can support more equitable access to successful academic experiences.

- Provide funding incentives to subsidize fees for AP STEM exams.
- Require students to take math and science courses during their senior year of high school.
- Reward schools that increase curriculum opportunities to include at least three AP STEM courses.
- Require districts to provide access to an Algebra I course in the eighth grade. Ensure that more students are prepared for and enrolled in this course.
- Establish funding for math and science equipment: for instance, graphing calculators, laboratory equipment, and subscriptions to electronic homework systems.

## College or University

- Encourage and reward faculty involvement in AP course development, exam scoring, and course syllabus review.
- Use recent studies — for instance, Rick Morgan and John Klaric's 2007 study<sup>13</sup> — to develop evidence-based AP credit policies.
- Conduct validity studies at your institution to measure AP students' college performance, persistence, and time to degree.
- Host weekend or evening lecture series to enhance AP teacher professional development and address particular topics or questions related to achievement gaps on AP Exams.

- Develop and publicize equitable and evidence-based credit and placement policies at your institution. Examine your policies to ensure that qualifying AP scores are recognized for credit that satisfies course-equivalent degree requirements, as opposed to elective credit.
- Review the numbers of low-income and underserved students reporting AP scores of 3 or higher to your institution, and examine possible policy limitations that hinder articulation of credit.
- Recognize and collaborate with AP Districts of the Year near your institution. Expand your recruiting efforts to target these districts, and support their continued progress through collaborative activities such as AP teacher training, college fairs, and parent outreach.

- Recruit successful AP students for your institution's STEM departments.
- Recognize successful AP STEM exam performance by awarding course-equivalent credit, scholarships, and STEM-related incentives.
- Encourage STEM faculty to get involved with local AP teachers and students. Conduct a student-centered study session on a weekend or evening prior to the AP Exam administration.
- Organize tours for local AP students to visit your institution's lab facilities.
- Provide incentives for teacher education programs to increase the number of qualified teachers prepared to teach AP STEM subjects.

The College Board would like to thank the National Math and Science Initiative (NMSI) for its help developing these strategies.

# Celebrating Equity and Excellence

On pages 4–7 you heard from students and educators in districts that were honored with the first annual AP District of the Year awards for their innovative initiatives and strategies to support equity and excellence in the AP classroom. The following three school districts received a second annual AP District of the Year award for their efforts and success in opening AP classroom doors to a significantly broader pool of students while increasing the percentage of students earning scores of 3 or higher.

We hope that they can serve as inspiration for your school, district, or state to unleash the potential of diverse groups of genuinely motivated students.

"Our teachers have worked tirelessly to increase rigor in their classes, and to coach and support students who had never experienced an AP course before. Our students have really stepped up, too. I'm sure there have been times when they felt like giving up, or times when they thought the work was too difficult. Nonetheless, they persevered and are now reaping the benefits from all that hard work.

"We intentionally sought out capable students (including those from underrepresented populations) for this initiative. We knew there were many with great potential, but who had not yet been stretched academically to meet the demands of the challenging AP course work. By actively recruiting these students, working with their parents, and providing them with the support they needed to be successful, our students have soared! While we know this journey is still in its early stages, we are extremely proud of our teachers and students."

—Sherrie B. Nickell, Superintendent

Celebrating Equity and Excellence

# Polk County Public Schools, Florida



“Student achievement continues to increase, as measured by Val Verde Unified School District’s rising test scores and college admission rates. In addition, several local schools have been recognized across the state and nation for raising academic achievement standards among all students. This is made possible by a talented and dedicated staff working with exceptional students who have strong support from parents and the community.”

—Alan Jensen, Superintendent

Celebrating Equity and Excellence

## Val Verde Unified School District, California



“Being named the small district winner by the College Board is a great distinction for Copiague. This ranking has been achieved due to the commitment of our students and the dedication of our high school administrators and Advanced Placement teachers. We’ve always known that we had the student and staff talent to succeed at the Advanced Placement level, and this recognition clearly supports that. As a district, we continually strive for ways to raise the bar academically and to offer our students opportunities to excel. This honor puts Copiague on par with high-achieving districts throughout the country and allows our students the chance to compete on a global level.”

—Charles A. Leunig, Superintendent

Celebrating Equity and Excellence

## Copiague Public Schools, New York



Appendix A: Raw numbers for Figures 2 and 3

	Total Number of Graduates				Number of Graduates Who Took an AP Exam in High School				Percentage of Graduates Who Took an AP Exam in High School			
	2001	2006	2010	2011	2001	2006	2010	2011	2001	2006	2010	2011
Alabama	37,082	37,681	39,628	39,108	2,897	3,597	7,710	8,584	7.8	9.5	19.5	21.9
Alaska	6,812	7,782	7,551	7,202	1,042	1,471	1,683	1,599	15.3	18.9	22.3	22.2
Arizona	46,733	66,098	79,117	79,878	4,717	8,099	12,335	13,297	10.1	12.3	15.6	16.6
Arkansas	27,100	27,450	29,074	28,296	2,336	8,025	10,633	11,326	8.6	29.2	36.6	40.0
California	315,189	370,697	385,728	386,595	71,836	105,979	131,042	136,787	22.8	28.6	34.0	35.4
Colorado	39,241	46,538	48,329	47,987	7,937	12,315	16,738	17,303	20.2	26.5	34.6	36.1
Connecticut	30,388	35,998	37,139	36,647	6,142	8,996	11,720	12,906	20.2	25.0	31.6	35.2
Delaware	6,614	7,092	7,661	7,570	877	1,890	2,149	2,191	13.3	26.6	28.1	28.9
District of Columbia	2,808	3,175	4,138	4,175	467	629	1,037	1,084	16.6	19.8	25.1	26.0
Florida	111,112	142,918	151,116	153,381	24,401	44,805	65,658	72,685	22.0	31.4	43.4	47.4
Georgia	62,499	74,827	82,085	83,201	12,332	19,492	30,643	31,764	19.7	26.0	37.3	38.2
Hawaii	10,102	10,723	10,702	10,588	1,150	1,555	2,095	2,338	11.4	14.5	19.6	22.1
Idaho	15,941	16,135	17,226	17,050	1,632	2,470	2,816	3,016	10.2	15.3	16.3	17.7
Illinois	110,624	125,385	133,503	132,309	16,572	25,656	35,112	37,723	15.0	20.5	26.3	28.5
Indiana	56,172	59,378	62,789	62,873	7,365	10,832	18,294	20,049	13.1	18.2	29.1	31.9
Iowa	33,774	34,858	35,604	35,029	2,428	3,701	5,134	5,345	7.2	10.6	14.4	15.3
Kansas	29,360	29,404	29,394	28,485	2,340	3,419	4,705	4,853	8.0	11.6	16.0	17.0
Kentucky	36,957	37,930	40,135	39,453	4,220	6,548	9,779	10,872	11.4	17.3	24.4	27.6
Louisiana	38,314	33,115	28,126	26,439	1,296	1,807	3,181	3,528	3.4	5.5	11.3	13.3
Maine	12,654	13,539	12,774	12,096	2,050	3,110	4,034	3,913	16.2	23.0	31.6	32.3
Maryland	49,222	55,886	57,523	55,919	10,613	18,174	24,959	25,973	21.6	32.5	43.4	46.4
Massachusetts	54,393	61,120	61,220	59,315	11,072	16,027	20,352	21,605	20.4	26.2	33.2	36.4
Michigan	96,515	103,996	106,246	104,127	13,569	18,326	24,658	25,708	14.1	17.6	23.2	24.7
Minnesota	56,581	59,320	58,152	57,338	8,351	10,767	15,275	16,181	14.8	18.2	26.3	28.2
Mississippi	23,748	24,080	25,331	25,255	1,626	2,378	3,576	3,605	6.8	9.9	14.1	14.3
Missouri	54,138	58,673	62,502	60,657	3,463	5,214	8,364	8,560	6.4	8.9	13.4	14.1
Montana	10,628	10,318	10,019	9,387	1,216	1,531	1,802	1,823	11.4	14.8	18.0	19.4
Nebraska	19,658	19,798	20,151	19,799	1,097	1,637	2,498	2,665	5.6	8.3	12.4	13.5
Nevada	15,127	16,411	21,041	21,206	1,994	3,907	5,949	6,217	13.2	23.8	28.3	29.3
New Hampshire	12,294	13,951	13,916	13,392	1,868	2,582	3,160	3,204	15.2	18.5	22.7	23.9
New Jersey	76,130	92,538	97,676	98,025	14,141	20,645	25,016	26,546	18.6	22.3	25.6	27.1
New Mexico	18,199	17,498	17,829	17,567	2,288	3,385	3,980	4,274	12.6	19.3	22.3	24.3
New York	141,884	159,496	160,181	156,401	39,590	50,884	60,854	63,032	27.9	31.9	38.0	40.3
North Carolina	63,288	77,956	85,651	84,401	13,159	21,142	24,558	25,543	20.8	27.1	28.7	30.3
North Dakota	8,445	7,376	6,922	6,799	558	724	721	888	6.6	9.8	10.4	13.1
Ohio	111,281	120,685	121,867	120,855	12,894	18,507	23,040	24,585	11.6	15.3	18.9	20.3
Oklahoma	37,458	36,256	37,705	36,385	4,219	6,967	7,853	7,806	11.3	19.2	20.8	21.5
Oregon	29,939	31,702	32,412	31,495	3,479	5,199	7,583	7,706	11.6	16.4	23.4	24.5
Pennsylvania	114,436	127,673	129,844	128,223	15,007	20,124	25,561	27,453	13.1	15.8	19.7	21.4
Rhode Island	8,603	9,943	10,036	9,716	903	1,298	1,795	1,907	10.5	13.1	17.9	19.6
South Carolina	30,026	35,055	35,856	35,456	6,064	7,774	9,626	10,149	20.2	22.2	26.8	28.6
South Dakota	8,881	8,303	8,050	7,948	958	1,272	1,477	1,509	10.8	15.3	18.3	19.0
Tennessee	40,642	47,968	51,910	50,851	4,806	7,087	9,634	10,067	11.8	14.8	18.6	19.8
Texas	215,316	252,810	271,900	276,131	39,378	62,211	82,174	90,639	18.3	24.6	30.2	32.8
Utah	31,036	31,692	33,883	33,083	7,507	8,848	9,614	9,761	24.2	27.9	28.4	29.5
Vermont	6,856	7,089	6,694	6,370	1,176	1,669	2,126	2,062	17.2	23.5	31.8	32.4
Virginia	66,067	74,705	80,760	80,324	17,150	22,933	30,780	32,212	26.0	30.7	38.1	40.1
Washington	55,081	63,108	65,271	64,315	7,531	13,314	18,296	19,162	13.7	21.1	28.0	29.8
West Virginia	18,440	16,861	17,419	16,852	1,688	2,212	3,204	3,453	9.2	13.1	18.4	20.5
Wisconsin	59,341	63,606	63,400	62,068	9,592	13,415	16,665	17,280	16.2	21.1	26.3	27.8
Wyoming	6,071	5,398	5,274	5,098	579	728	827	892	9.5	13.5	15.7	17.5
<b>UNITED STATES</b>	<b>2,569,200</b>	<b>2,891,994</b>	<b>3,018,460</b>	<b>2,993,120</b>	<b>431,573</b>	<b>645,277</b>	<b>852,475</b>	<b>903,630</b>	<b>16.8</b>	<b>22.3</b>	<b>28.2</b>	<b>30.2</b>

## Endnotes

	Number of Graduates Who Scored 3+ on an AP Exam in High School				Percentage of Graduates Who Scored 3+ on an AP Exam in High School			
	2001	2006	2010	2011	2001	2006	2010	2011
Alabama	1,552	2,129	3,573	3,872	4.2	5.7	9.0	9.9
Alaska	664	941	1,080	1,006	9.7	12.1	14.3	14.0
Arizona	3,102	4,929	6,963	7,675	6.6	7.5	8.8	9.6
Arkansas	1,187	2,652	3,623	3,827	4.4	9.7	12.5	13.5
California	49,991	71,007	85,845	90,409	15.9	19.2	22.3	23.4
Colorado	5,217	7,753	10,330	10,692	13.3	16.7	21.4	22.3
Connecticut	4,397	6,593	8,420	9,270	14.5	18.3	22.7	25.3
Delaware	536	1,017	1,180	1,172	8.1	14.3	15.4	15.5
District of Columbia	190	226	285	276	6.8	7.1	6.9	6.6
Florida	14,896	24,791	33,636	36,678	13.4	17.3	22.3	23.9
Georgia	6,754	10,786	15,668	16,476	10.8	14.4	19.1	19.8
Hawaii	629	776	1,001	1,060	6.2	7.2	9.4	10.0
Idaho	1,059	1,508	1,893	2,079	6.6	9.3	11.0	12.2
Illinois	12,150	18,123	23,024	24,449	11.0	14.5	17.2	18.5
Indiana	3,696	5,351	7,764	8,773	6.6	9.0	12.4	14.0
Iowa	1,686	2,471	3,145	3,392	5.0	7.1	8.8	9.7
Kansas	1,493	2,197	2,805	2,943	5.1	7.5	9.5	10.3
Kentucky	2,208	3,331	4,903	5,393	6.0	8.8	12.2	13.7
Louisiana	726	839	1,306	1,474	1.9	2.5	4.6	5.6
Maine	1,371	1,921	2,430	2,462	10.8	14.2	19.0	20.4
Maryland	7,309	12,082	15,167	15,610	14.8	21.6	26.4	27.9
Massachusetts	7,956	11,537	14,122	15,129	14.6	18.9	23.1	25.5
Michigan	8,620	12,083	15,914	16,628	8.9	11.6	15.0	16.0
Minnesota	4,844	7,120	9,795	10,493	8.6	12.0	16.8	18.3
Mississippi	630	798	1,115	1,133	2.7	3.3	4.4	4.5
Missouri	2,208	3,396	4,682	4,959	4.1	5.8	7.5	8.2
Montana	757	1,011	1,174	1,196	7.1	9.8	11.7	12.7
Nebraska	684	1,018	1,497	1,605	3.5	5.1	7.4	8.1
Nevada	1,270	2,298	3,148	3,451	8.4	14.0	15.0	16.3
New Hampshire	1,251	1,808	2,311	2,453	10.2	13.0	16.6	18.3
New Jersey	10,146	14,740	18,214	19,486	13.3	15.9	18.6	19.9
New Mexico	1,178	1,623	1,820	1,954	6.5	9.3	10.2	11.1
New York	26,463	33,430	39,462	41,427	18.7	21.0	24.6	26.5
North Carolina	7,946	12,291	14,995	15,496	12.6	15.8	17.5	18.4
North Dakota	402	517	474	555	4.8	7.0	6.8	8.2
Ohio	8,059	11,552	14,323	15,453	7.2	9.6	11.8	12.8
Oklahoma	2,316	3,339	3,895	3,892	6.2	9.2	10.3	10.7
Oregon	2,259	3,227	4,579	4,719	7.5	10.2	14.1	15.0
Pennsylvania	10,093	13,561	16,488	17,708	8.8	10.6	12.7	13.8
Rhode Island	530	844	1,095	1,168	6.2	8.5	10.9	12.0
South Carolina	3,554	4,532	5,409	5,855	11.8	12.9	15.1	16.5
South Dakota	557	762	882	974	6.3	9.2	11.0	12.3
Tennessee	2,838	4,074	5,017	5,274	7.0	8.5	9.7	10.4
Texas	22,546	34,709	42,226	46,013	10.5	13.7	15.5	16.7
Utah	5,231	6,113	6,503	6,853	16.9	19.3	19.2	20.7
Vermont	817	1,118	1,460	1,361	11.9	15.8	21.8	21.4
Virginia	10,900	14,751	19,162	20,542	16.5	19.7	23.7	25.6
Washington	5,002	8,154	11,182	11,812	9.1	12.9	17.1	18.4
West Virginia	896	1,065	1,328	1,483	4.9	6.3	7.6	8.8
Wisconsin	6,401	9,348	11,615	12,058	10.8	14.7	18.3	19.4
Wyoming	340	368	450	501	5.6	6.8	8.5	9.8
<b>UNITED STATES</b>	<b>277,507</b>	<b>402,610</b>	<b>508,378</b>	<b>540,619</b>	<b>10.8</b>	<b>13.9</b>	<b>16.8</b>	<b>18.1</b>

1. *The Advanced Placement Program and UW–Madison New Freshmen* (Academic Planning and Analysis, Office of the Provost, University of Wisconsin–Madison, August 2009), <http://apa.wisc.edu/Admissions/APAnalysis.pdf>.
2. *Coming to Our Senses: Education and the American Future* (New York: The College Board, 2008), <http://advocacy.collegeboard.org/sites/default/files/coming-to-our-senses-college-board-2008.pdf>.
3. For more information, visit the College Board's College Completion Agenda at [completionagenda.collegeboard.org](http://completionagenda.collegeboard.org).
4. *The College Completion Agenda 2011 Progress Report* (New York: The College Board, 2011).
5. *Ibid.*
6. Organisation for Economic Co-operation and Development, *PISA 2009 Results: What Students Know and Can Do*, accessed 11/17/11, [www.oecd.org/edu/pisa/2009](http://www.oecd.org/edu/pisa/2009).
7. *Ibid.*
8. Underserved minorities are defined throughout this report as American Indian/Alaska Native, black/African American, and Hispanic/Latino.
9. "AP potential" is defined here as a 70 percent or greater likelihood of scoring a 3 or higher on an AP Exam. These data are based on 2,005,862 public school PSAT/NMSQT® takers in the class of 2011. Students were classified as taking a recommended AP subject if they completed an AP Exam in a subject for which they had potential to succeed.
10. AP Potential is a free, Web-based tool that uses PSAT/NMSQT results to find students who are likely to succeed in AP. For more information, visit [appotential.collegeboard.org](http://appotential.collegeboard.org).
11. An AP Vertical Team is a group of middle and high school educators (usually teachers of grades six through 12) in a particular subject area who work cooperatively to develop and implement vertically aligned curricula to facilitate student preparedness for AP courses in that subject area and for college.
12. For more information, visit [www.collegeboard.org/apcourseledger](http://www.collegeboard.org/apcourseledger).
13. Rick Morgan and John Klaric, *AP Students in College: An Analysis of Five-Year Academic Careers* (New York: The College Board, 2007).



### **About the College Board**

The College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, the College Board was created to expand access to higher education. Today, the membership association is made up of more than 5,900 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, the College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success — including the SAT<sup>®</sup> and the Advanced Placement Program<sup>®</sup>. The organization also serves the education community through research and advocacy on behalf of students, educators and schools.

For further information,  
visit [www.collegeboard.org](http://www.collegeboard.org).

### **For more copies of this report**

*The 8th Annual AP Report to the Nation*  
may be downloaded as a PDF from  
[apreport.collegeboard.org](http://apreport.collegeboard.org).

Printed copies may be ordered free of  
charge at [www.collegeboard.org/freepubs](http://www.collegeboard.org/freepubs).