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Analyzing Advanced Placement (AP): Making the Nation's Most Prominent College Preparatory Program More Equitable

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Recommended Citation

Naff, D., Parry, M., Ferguson, T., Palencia, V., Lenhardt, J., Tedona, E., Stroter, A., Stripling, T., Lu, Z., & Baber, E. (2021). Analyzing Advanced Placement (AP): Making the Nation's Most Prominent College Preparatory Program More Equitable. Richmond, VA: Metropolitan Educational Research Consortium.

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ANALYZING ADVANCED PLACEMENT (AP): MAKING THE NATION'S MOST PROMINENT COLLEGE PREPARATORY PROGRAM MORE EQUITABLE

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ABOUT THIS REPORT

This report comes from the [Equitable Access and Support for Advanced Coursework](#) study from the Metropolitan Educational Research Consortium (MERC). The study explores racial and socioeconomic disparities in advanced course taking throughout K12 public education, including gifted programs in elementary school, algebra I in middle school, and Advanced Placement (AP), International Baccalaureate (IB), dual enrollment, and honors classes in high school. There are two phases to the study. Phase one focuses on a regional analysis of advanced coursework policies and patterns and includes a secondary data analysis and policy analysis. Phase two focuses on understanding student perspectives and school practices and includes a student survey and multiple case study. Throughout the study, researchers will focus on promoting strategies and solutions for making access and support for advanced coursework more equitable throughout the metropolitan Richmond region. This report offers a review of the literature on equity in Advanced Placement (AP) courses, organized to answer five questions:

What are Advanced Placement (AP) courses? This includes an overview of the AP curriculum and exam structure as well as a discussion of the historical context of the AP program leading to its ascension to prominence in American high schools.

Who enrolls and succeeds in AP courses? This section includes an analysis of data indicating racial and socioeconomic disparities in AP enrollment and performance nationally and in Virginia.

Why do disparities in AP matter? This section reflects on the implications of persistent enrollment and performance disparities in AP, including differential access to the demonstrated college preparatory benefits of the program.

What factors contribute to disparities in AP participation and performance? This section identifies key findings from the literature about the factors that inhibit equity in AP, including a discussion of academic tracking.

What policies and practices help to address disparities in AP access, enrollment, and performance? This section offers an overview of recommendations from the literature about policies and practices demonstrating evidence of expanding and diversifying AP programs, including strategies for detracking.

We conclude with a series of itemized [conclusions and recommendations](#) for policy and practice based on takeaways from the literature. Our team selected research, technical reports, and publicly available data to answer these five questions. This review is therefore not systematic nor intended to offer a comprehensive look at the vast literature on Advanced Placement. Instead, it is intended to offer insights for educators enrolling and supporting students in AP courses as well as school and division leaders overseeing these processes, with actionable steps for making enrollment more representative of the demographics in the schools that host them.

Publication Date

April 2021

Recommended Citation

Naff, D., Parry, M., Ferguson, T., Palencia, V., Lenhardt, J., Tedona, E., Stroter, A., Stripling, T., Lu, Z., & Baber, E. (2021). *Analyzing Advanced Placement (AP): Making the Nation's Most Prominent College Preparatory Program More Equitable*. Richmond, VA: Metropolitan Educational Research Consortium.

A report by the Metropolitan Educational Research Consortium

Established in 1991, the [Metropolitan Educational Research Consortium \(MERC\)](#) is a research alliance between the School of Education at Virginia Commonwealth University and school divisions in metropolitan Richmond: Chesterfield, Goochland, Hanover, Henrico, Petersburg, Powhatan, and Richmond. Through our Policy and Planning Council, MERC division superintendents and other division leaders identify issues facing their students and educators and MERC designs and executes research studies to explore them, ultimately making recommendations for policy and practice. MERC has [five core principles](#) that guide its work: Relevance, Impact, Rigor, Multiple Perspectives, and Relationships.



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WHAT ARE ADVANCED PLACEMENT (AP) COURSES?

Advanced Placement (AP) courses are offered in high schools across the country with the intention of providing participating students with the opportunity to engage in college level coursework. The curriculum for AP is established by the [College Board](#), a non-profit organization founded in 1900 with an articulated mission of “connecting students to college success.”¹ Millions of students take AP courses and exams each year, with thousands of K12 schools and colleges participating in the program.

There are other opportunities for students to engage in college level coursework while still in high school, including the [International Baccalaureate \(IB\) program](#) offering accelerated coursework for grades 3-12, and dual enrollment programs where schools and districts partner with community colleges and universities to offer their students the opportunity to earn college credits while in high school. While these programs offer viable options for preparing high school students for the rigors of college and earning college credit, they are typically not offered to the same degree across the country as AP courses.² Perhaps because of this, the literature offers overwhelming attention to AP in comparison to IB or dual enrollment. Thus, this literature review focuses specifically on AP with the intention of providing insights into the most prevalently utilized college preparatory curriculum in the county.

Throughout this report we will review key takeaways from research about how the AP program works in practice, with an ongoing focus on how equitably it is offered for students from underrepresented groups, including those who are low-income as well as racial and ethnic minority students. We refer to “disparities” rather than “gaps” in enrollment and achievement in AP in order to explore this issue without taking a deficit lens.³ Furthermore, we focus primarily on how existing policies and practices contribute to these disparities, particularly for Black and Latinx students, in order to emphasize practical strategies for promoting more equitable outcomes in AP. In this opening section we discuss the current AP curriculum and structure as well as historical context behind the unprecedented rise of the program. This will set the stage for future sections exploring demographic trends in AP participation, why racial and socioeconomic disparities in the program matter, what prominent factors are discussed in the literature that contribute to these disparities, and what policies and practices help to promote greater equity in AP. While this review discusses national trends in the data and research, we also focus specifically on Virginia throughout the report to directly inform the work of schools and divisions in the [Metropolitan Educational Research Consortium \(MERC\)](#), who commissioned this report and the corresponding [study on equity in advanced coursework](#).

¹ <https://www.collegeboard.org/>

² Callahan et al. (2017)

³ Quinn (2020)

AP Curriculum

The College Board currently advertises 38 AP courses that schools can offer for students, each with an accompanying exam (Table 1).

Table 1. Advanced Placement courses

Capstone	Arts	Math and Computer Science	World Languages and Cultures
AP Research AP Seminar	AP 2-D Art & Design AP 3-D Art & Design AP Art History AP Drawing AP Music Theory	AP Calculus AB AP Calculus BC AP Computer Science A AP Computer Science Principles AP Statistics	AP Chinese Language & Culture AP French Language & Culture AP German Language & Culture AP Italian Language & Culture AP Japanese Language & Culture AP Latin AP Spanish Language & Culture AP Spanish Literature & Culture
English	History and Social Studies	Sciences	
AP English Language & Composition AP English Literature & Composition	AP Comparative Government & Politics AP European History AP Human Geography AP Macroeconomics AP Microeconomics AP Psychology AP US Government & Politics AP US History AP World History: Modern	AP Biology AP Chemistry AP Environmental Science AP Physics: Algebra-Based AP Physics 2: Algebra-Based AP Physics C: Electricity & Magnetism AP Physics C: Mechanics	

Perhaps among the most motivating factors for student participation in the AP program is the potential for earning college credit. Many colleges and universities offer course credit when students receive a score of three or higher out of five possible points on the end-of-course exam. Thus, college students with AP credit are often able to skip general curriculum courses allowing them to take courses aligned to their majors earlier than non-AP credit students. According to Adams (2014), 68% of universities in 2013 offered credit for a score of three or higher, 30% offered credit for a score of four or higher, and 2% (including Harvard University) only offered credit for a perfect score of five. Less than 1% of institutions did not offer any credit regardless of AP exam scores. The [Common Application suggests](#) that students typically need to receive a score of four or higher to earn college credit.

About 30–40% of AP course takers do not take an AP exam, as it is not mandatory to do so at the conclusion of a course (depending on school policy).⁴ In addition to the potential for earning college credit through AP exam performance, high schools frequently offer students who take AP courses a bump in their grade point average (GPA) weighting, ultimately positively impacting class rank and admission decisions and presenting another incentive for participation.⁵ The following table depicts the top five most popular courses in each subject area by exams taken according to the most recent [AP Report to the Nation from the College Board](#).

Table 2. Most popular AP courses by tests taken (class of 2013)

Math and Science	English, History, and Social Science	Arts and World Languages
1. Calculus AB (223,444) 2. Biology (162,381) 3. Statistics (141,335) 4. Chemistry (107,431) 5. Environmental Science (97,918) Total exams taken in AP Math and Science courses: 957,879	1. English Language and Composition (390,754) 2. US History (366,641) 3. English Literature and Composition (325,108) 4. US Government and Politics (216,944) 5. Psychology (199,222) Total exams taken in AP English, History, and Social Science courses: 1,984,678	1. Spanish Language (106,199) 2. Studio Art: 2-D Design (19,608) 3. Art History (16,969) 4. Music Theory (15,649) 5. Spanish Literature and Culture (15,249) Total exams taken in AP Arts and World Languages Courses: 220,507

Overall, AP English, History, and Social Science courses had more than double the popularity of AP Math and Science courses. AP Arts and World Languages courses only represented about 7% of all AP exams taken by the class of 2013.

Curriculum and exam development

According to the [College Board](#), the curricula are determined by committees composed of college faculty and experienced AP teachers. These committees also determine the general content and ability levels for exams and set requirements for course syllabi. They also create and review questions for AP exams. Collaboration between AP teachers and university faculty is intended to ensure alignment with college level standards. Course revisions typically [occur regularly](#) over a two to three year period. University faculty draft multiple choice questions for AP exams, intentionally including some repeated questions across years to determine statistical reliability over time. Free response questions are written by the committees who oversee curriculum development and are reviewed by content experts, going through rounds of revision over multiple years before they are used in an exam. Free response exam questions are not used over multiple years.

⁴ Kolluri (2018)

⁵ Kettler & Hurst (2017)

AP exams are scored on a five point scale to determine potential college credit eligibility: 1 (no recommendation), 2 (possibly qualified), 3 (qualified, grade equivalent C, C+, or B-), 4 (very well qualified, grade equivalent B, B+, or A-), 5 (extremely well qualified, grade equivalent A or A+). Performance expectations are determined by university faculty, who draft “Achievement Level Descriptors (ALDs)” for each score level. Multiple choice questions are scored by a computer, and free response questions are scored at the annual summer “AP Reading” by experienced AP teachers and college faculty familiar with the content for each course. There is a “Chief Reader” for each exam, who selects readers and oversees scoring activities. This is always a university faculty member.⁶ Full information on AP course and exam development can be found on the [AP Central webpage](#) from the College Board.

At the onset of the AP program, exams came at a fee of \$10.⁷ Today, AP exams cost \$95 each for students in the United States, and the College Board offers a \$33 fee waiver for students with “significant financial need.”⁸ Fee reductions were not made available from the College Board until 1995,⁹ and even with assistance the remaining cost can prove to be a barrier for low-income students. Thus, some states and school divisions provide additional financial assistance to cover AP fees. For example, the [New York State Department of Education budgeted \\$5.8 million to help cover AP fees for low-income students](#), although that funding was recently put on hold due to COVID-19. [Virginia does not currently provide state level assistance for AP exam fee reduction](#). Fees for AP exams and the SAT are the two primary sources of revenue for the College Board,¹⁰ [which topped one billion dollars in 2018](#).

Today’s AP program is massive, profitable, and overwhelmingly situated as the primary access to college level coursework and credit in American high schools. In the following section we discuss its historical roots and expeditious climb into its current position of prominence.

⁶ We discuss the potential for bias in AP exam creation and scoring [later in this review](#).

⁷ Rothschild (1999)

⁸ We discuss fee waivers as a method of promoting equity in AP [later in this review](#).

⁹ Rothschild (1999)

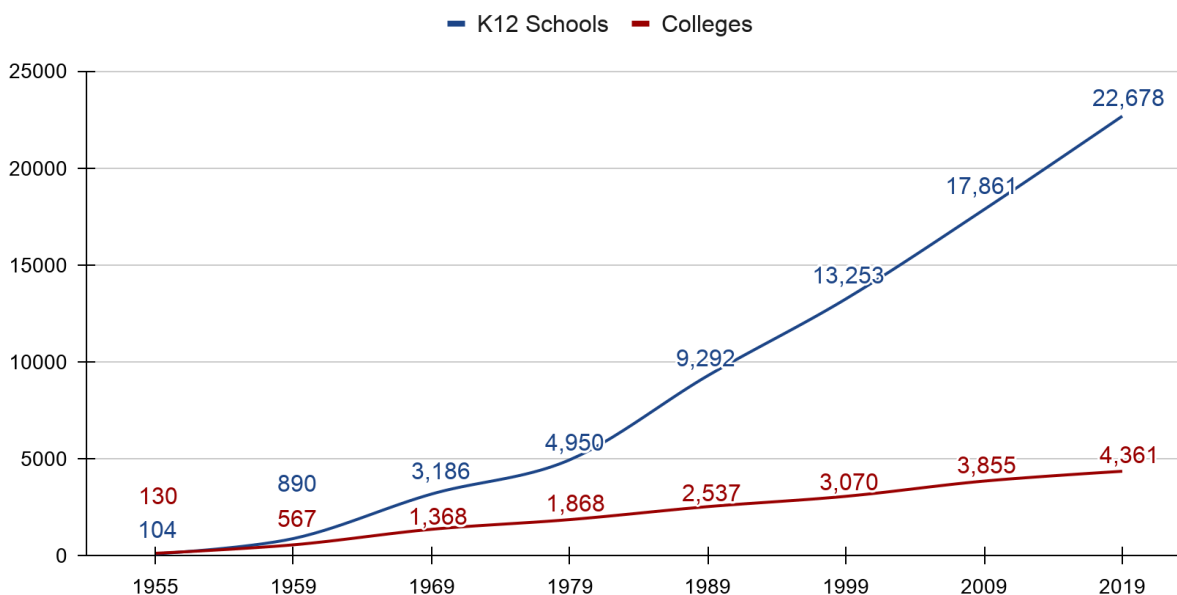
¹⁰ Tugend (2017)

The History and Rapid Ascension of AP

Established in the early 1950s by presidents, deans, and other administrators from Ivy League colleges, AP courses were seen as a means for high achieving students to gain access to college preparation classes and credit while still enrolled in high school.¹¹ Often marketed toward the “best and brightest” students, AP courses, at their inception, created a “tug of war” between prestige and access.¹² The AP program was built with the intent of challenging the elite population of students who were deemed “college bound.”¹³ Of the students participating in the AP program, most were from high-SES homes where parents were “highly educated.”¹⁴ There were 11 exams offered initially in Biology, Chemistry, English Composition, French, German, Latin, Literature, Mathematics, Physics, and Spanish.¹⁵

According to Rothschild (1999), 32% of students in the fall of 1954 who were enrolled in AP courses while in high school finished in the top one-sixth of their class at the end of their freshman year. An additional 65% were in the middle two-thirds of their class, and only 3% were in the bottom third. These outcomes were foundational in initially selling the AP program to prospective colleges, offering evidence that “AP students” were likely to perform well once admitted. Since its inception in the mid 1950s, the AP program has exploded in prevalence in both K12 schools offering the classes and colleges accepting exam credits, as depicted in the following figure.¹⁶

Figure 1. Growth of AP program in schools and colleges from 1955-2019



¹¹ Rothschild (1999)

¹² Schneider (2009)

¹³ Kolluri (2018); Schneider (2009)

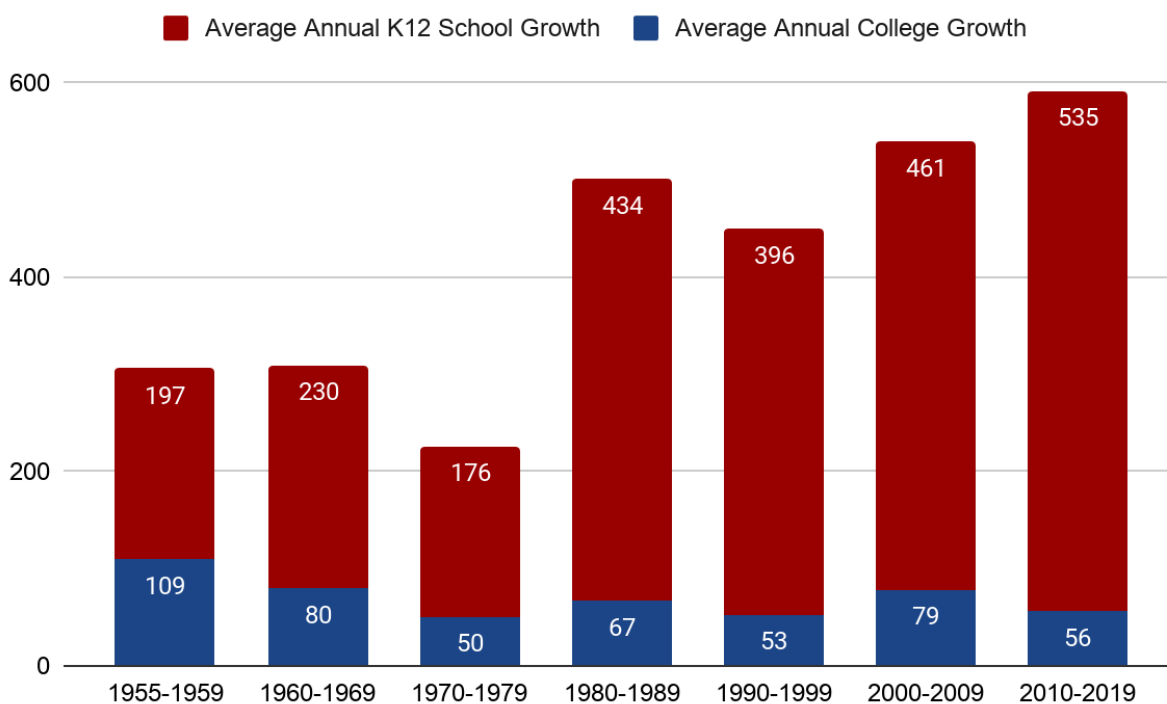
¹⁴ Rothschild (1999)

¹⁵ Ibid.

¹⁶ This and all of the following figures use [annual AP participation data](#) from the College Board

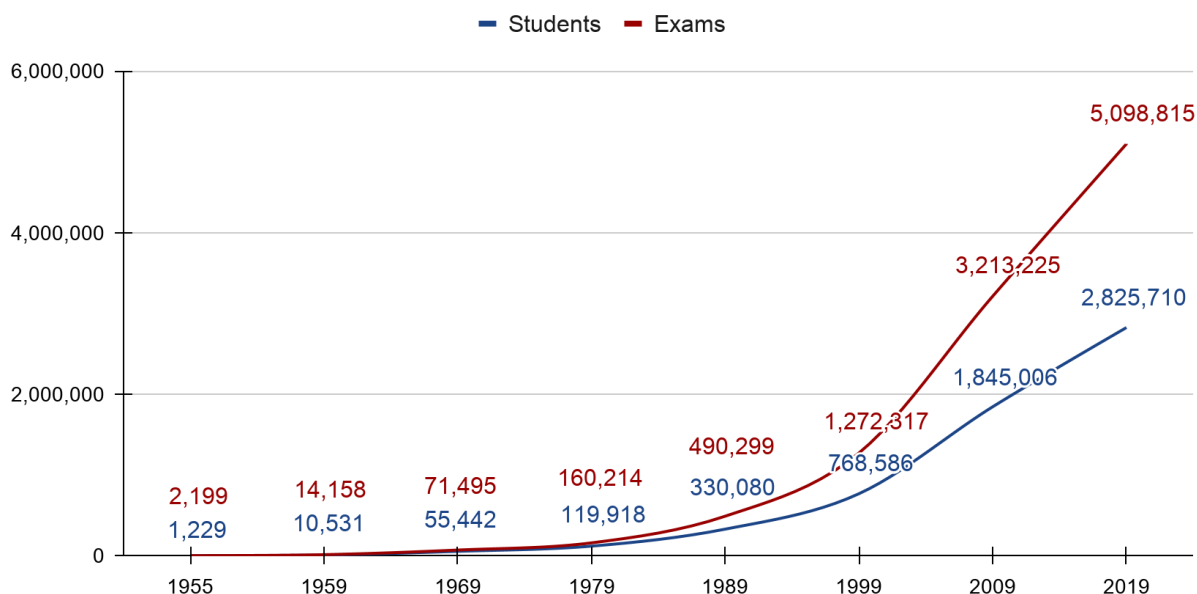
In K12 schools, the AP program has grown to 218 times its original size, offering classes in 22,678 schools nationally and internationally in the 2018-2019 academic year. At the same time, the number of colleges accepting AP credits has grown 33 fold to 4,361 national and international institutions. Over this time period, the greatest single year growth in K12 schools was in 2014-2015, when 2,101 new schools were onboarded. The greatest single year for onboarding colleges was 1989-1990, when 281 more colleges began accepting AP exams. Looking at this data another way, the following figure depicts the average annual growth in K12 schools and colleges by decade

Figure 2. Average annual growth in AP program in schools and colleges by decade



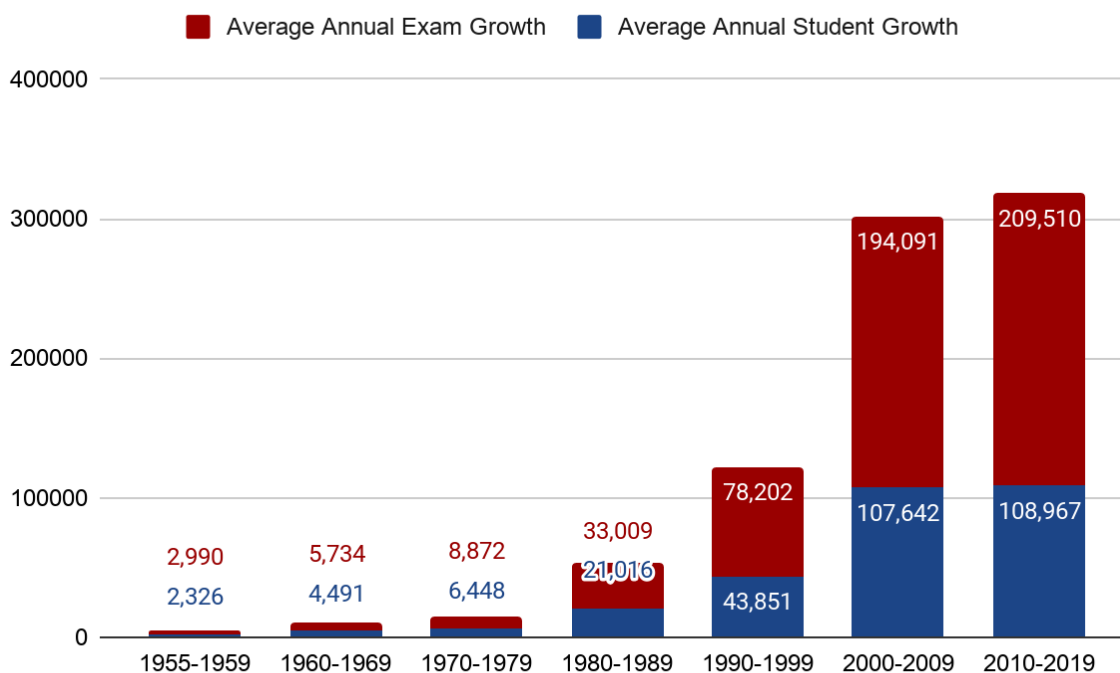
There was a precipitous jump in the 1980s in annual growth for K12 schools participating in AP that has more or less maintained ever since, with even more rapid expansion occurring in the most recent decade where an average of 535 new schools onboarded each year. Average annual growth in new colleges accepting AP scores was strongest at the onset of the program, but there has continued to be an average of at least 50 new colleges onboarding every year for each subsequent decade of the program. According to [the College Board](#), “Nearly all U.S. colleges and universities and many international institutions honor AP scores.” Having grown into near ubiquitous status, it is no surprise that the number of students taking AP courses and exams has similarly skyrocketed, as depicted in the following figure.

Figure 3. Growth in students and exams taken in AP from 1955-2019



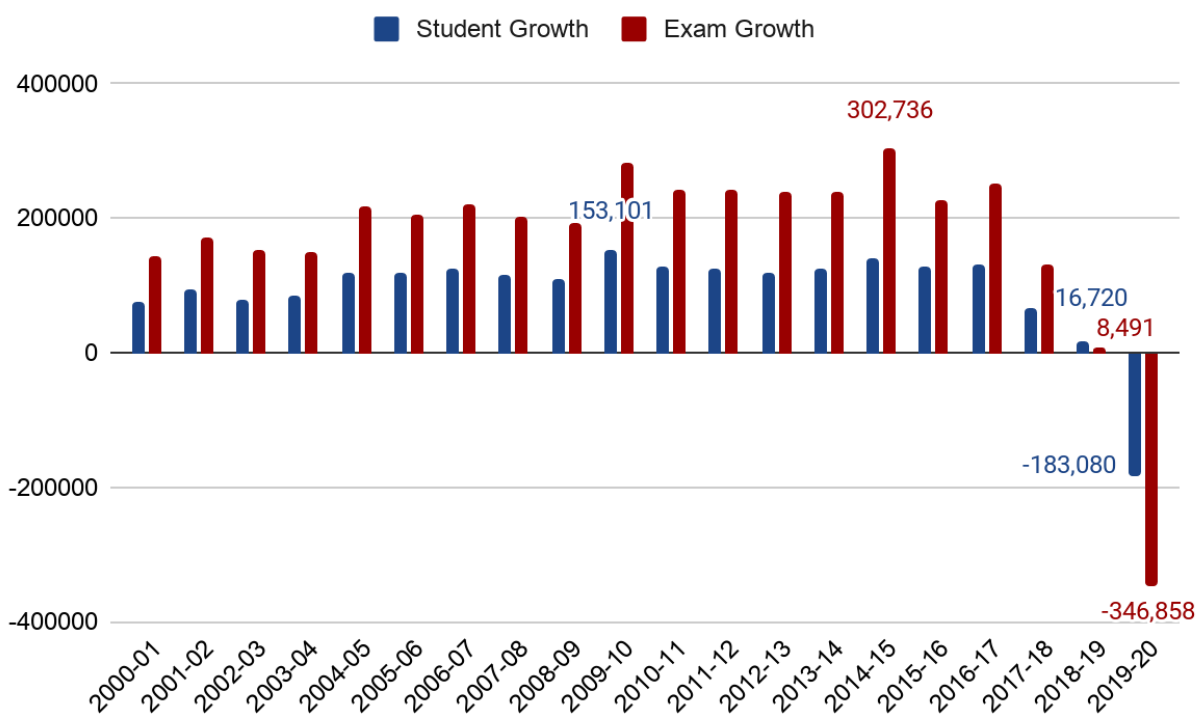
The number of students taking AP courses has grown nearly 2,300 fold since the earliest days of the program, with 2,825,710 students participating in 2019. Those students took 5,098,815 exams, another 2,300 fold increase since the 1955-1956 school year. While the 2000s and 2010s were slightly more prolific for the AP program in terms of newly participating K12 schools and colleges, they were particularly expansive in terms of additional students and exams, as depicted in the following figure.

Figure 4. Average annual growth in AP students and exams by decade



Since 2000, an average of 108,270 more students each year have participated in AP, taking an average of 201,395 more exams each year. This massive growth in AP participation has led to commensurate growth in revenues for the College Board. In 1958, the AP program was \$150,000 in debt.¹⁷ In 2015, the College Board had \$916 million in revenue, with \$408 million coming from AP exam fees and instructional materials.¹⁸ Growth like this has led to critiques about the “non-profit” status of the institution, arguing that efforts to grow the AP program have less to do about expanding access to college level work in high school and more to do with getting as many students into a profitable program as possible. All of the preceding charts included data through the 2018-2019 academic year. Perhaps evidence of the impact of the COVID-19 pandemic, the 2019-2020 academic year showed a sharp decrease in AP program participation, as depicted in the following figure.

Figure 5. Annual growth in AP students and exams 2000-2019



The 2000s and 2010s were a boon for the AP program, with peaks in 2009-10 for additional students (153,101) and in 2014-15 for additional exams (302,736). Starting in 2017-18, there was a slow down in growth, with only an additional 16,720 students and 8,491 exams in the 2018-19 school year. In 2019-20 (the first year of the COVID-19 pandemic), the AP program had 183,080 fewer participating students and 346,858 fewer exams (most of which were administered online for safety reasons). That same year, there were 526 fewer participating schools and 1,201 fewer colleges accepting scores. Still, 2,642,630 students at 22,152 schools took 4,751,957 exams, with scores accepted at 3,160 colleges in 2019-20. Time will tell whether this marks a declining trend in AP participation or if it is a temporary setback for

¹⁷ Rothschild (1999)

¹⁸ Tugend (2017)

the program. However, with [colleges increasingly moving to a “test optional” method of admissions](#) that does not require SAT scores (another College Board staple), there is potential for AP classes to increasingly be used as a national point of comparison between candidates for college admission.

Efforts to promote equity in AP over time

According to Rothschild (1999), the AP program has progressively moved toward the direction of greater access. This change in practice followed Lyndon Johnson’s Great Society in the late 1960s and early 1970s when he pushed educational leaders to consider more equitable approaches to education. The 1983 *A Nation at Risk* report directed focus back to cultivating skills of the most elite students. At the time, the AP program served 177,406 students in 6,273 schools, with exam scores accepted at 2,153 colleges.¹⁹ The 1990s brought federal funding to target low-income communities for the AP program as a part of the Goals 2000 federal legislation,²⁰ and between 1989 and 1999 the program grew another 43% in student participation, 159.4% in K12 school participation, and 140% in college participation.²¹ By the mid-1990s, half of the nation’s high schools were participating in AP.²²

Yet there were persistent disparities in access to the program based on the socioeconomic and racial composition of schools. According to Tugend (2017), by the 1990s parents in lower-income school districts became increasingly concerned about lack of access to AP in their children’s schools in comparison to schools serving primarily White and affluent students. In 1999, the ACLU sued the state of California over inequitable access to AP courses, citing egregious disparities in availability. For example, Inglewood High School in South Los Angeles (serving primarily low-income and racial minority students) only offered three AP classes while the White, more affluent Beverly Hills High School offered 45 AP classes in 14 subject areas. The state ultimately settled the lawsuit by agreeing to increase AP access.²³ Still, these disparities persisted across the country, even as AP continued to grow into the primary way that schools provide services to their “gifted” high school students.²⁴

According to a 2013 report from the Education Trust by Theokas & Saaris, more than 75% of schools offered AP coursework in at least three different content areas and 91% of high school students attended schools that offered at least one AP course. Additionally, 58% of schools offered at least one course in English, mathematics, science, and social studies, making it a “complete” AP program. Still, there are persistent disparities in the number of AP classes offered and the likelihood of having a “complete” AP program based on the urbanicity of a school as well as the racial and socioeconomic composition of the student body.²⁵ The College Board now [publicly shares data on demographic differences in program participation dating back to 1997](#) and produces reports about the diversity of the program,

¹⁹ AP Annual Participation through 2010 (College Board)

²⁰ Goals 2000: Educate America Act

²¹ AP Annual Participation through 2010 (College Board)

²² Rothschild (1999)

²³ This ultimately did not address disparities in access, as discussed [later in this review](#).

²⁴ Callahan et al. (2017)

²⁵ Gagnon & Mattingly (2016); Theokas & Saaris (2013)

although the most recent [annual AP Report to the Nation](#) discussing equity gaps was in 2014.

As this literature review will discuss, the meteoric rise of AP has not directly translated to equitable benefits for all American high school students. Still, despite the elitist origins of the program, it has the potential to offer access to college level curricula and postsecondary credits to all students, including those from low-income backgrounds who could perhaps benefit the most from affordable college credits. In the following section we explore how participation in AP varies by race and socioeconomic status nationally and in Virginia to illuminate how close the program is to fulfilling this potential.

WHO ENROLLS AND SUCCEEDS IN AP COURSES?

Although there have been meaningful gains in overall participation in Advanced Placement since the advent of the program, there remain stark disparities in which student groups are represented in these courses.²⁶ Research has shown that Black and Latinx students are less likely to take and succeed in AP courses than their White and Asian peers.²⁷ Similarly, students from lower socioeconomic brackets tend to be underrepresented in AP compared to their higher-SES peers.²⁸ In this section we review national as well as Virginia data to explore racial and socioeconomic disparities in AP course taking and performance. We conclude with a discussion of how AP access varies by urbanicity and school resources.

Racial Disparities

Racial disparities in AP participation and performance are well supported not only in the research literature, but also in nationally representative data. Black and Latinx students participate in AP at a rate much lower than expected compared to their overall percentage of the US student population.²⁹ In a 2019 study exploring national CRDC data, Shores et al. found that White students are 1.7 times more likely to be identified as “gifted” and 1.3 times more likely to take AP classes than Black students.³⁰ Gagnon and Matingly (2016) reported similar results, finding AP enrollment disparities were especially lower for Black and Native American students. Similarly, Black and Latinx students tend to receive lower scores on AP exams than their White and Asian peers,³¹ and inequities tend to be most pronounced in AP STEM courses (e.g. AP Calculus AB, AP Calculus BC, and Physics C).³² Attempts by the College Board to address this issue, such as the “All In” campaign, have shown marginal gains for underrepresented student groups while enrollment has simultaneously increased for Asian and White students, perpetuating disparities.³³ Furthermore, disaggregating these patterns reveals that enrollment data can be misleading. For example, gains in Latinx student enrollment tends to be concentrated in courses like AP Spanish Language while underrepresentation persists in AP STEM courses.³⁴

Disparities in AP course taking and performance may be explainable, in part, to access. According to Theokas & Saaris (2013), using AP testing data from the College Board, 97 percent of Asian public high school students had access³⁵ to an AP class in 2010, compared

²⁶ Kolluri (2018)

²⁷ e.g. Kolluri (2018); Shores et al. (2019); Theokas & Saaris (2013)

²⁸ e.g. Gagnon & Matingly (2016); Klopfenstein (2004); Moore & Slate (2008)

²⁹ Burton et al. (2002); Kettler & Hurst (2017)

³⁰ p. 4

³¹ Gagnon & Matingly (2016)

³² Kolluri (2018)

³³ Scafidi et al. (2015)

³⁴ Kolluri (2018)

³⁵ “Access” was defined as having at least one student in the school take an AP exam in the previous year.

to 91 percent of Latinx students, 91 percent of White students, 89 percent of Black students, and 76 percent of American Indian students. Although the majority of students in all racial groups attended schools with at least one AP course, there were still documented disparities in the number of AP courses offered within schools based on their racial composition, with schools containing higher percentages of racial minority students tending to offer fewer options.³⁶ Taken together, this evidence suggests that Black and Latinx students tend to attend schools with fewer AP course offerings, are less likely to enroll in AP courses and take AP exams, and tend to perform lower on those exams than their White and Asian peers. Furthermore, these disparities exist despite overall increases in AP participation over time. The following table depicts the percentage of graduates with AP course credit³⁷ over a 20 year period.³⁸

Table 3. Percent graduates with AP course credit by race and ethnicity 1994-2013

Race/Ethnicity	1994	2005	2009	2013	% Increase 1994-2013
Asian	29.4%	48.6%	66.2%	69.8%	237%
White	15.1%	29.8%	37.3%	41.0%	272%
Black	9.0%	18.3%	22.2%	27.0%	300%
Latinx	14.8%	28.5%	33.8%	36.5%	247%

According to these data, White and Asian students remained more likely than Black and Latinx students to have an AP course credit from 1994 to 2013. Encouragingly, over that timespan Latinx students saw their likelihood more than double and Black students saw their likelihood triple. Still, the ratio of White to Black students graduating with AP course credit was 1.67 in 1994, 1.62 in 2005, 1.68 in 2009, and 1.51 in 2013, suggesting that White students were persistently at least 150% as likely to earn an AP course credit as their Black peers. The disparities with Asian students were even more pronounced, as they remained at least 2.5 times as likely as Black students to earn an AP course credit between 1994 and 2013. Similarly, Black and Latinx students tend to be underrepresented in AP exam participation, as depicted in the following table.³⁹

³⁶ Cisneros et al. (2014)

³⁷ Earned credit for completing the AP course (with or without the exam)

³⁸ Kolluri (2018), using data from the National Center of Educational Statistics (NCES)

³⁹ Kolluri (2018), using 2014 data from the College Board

Table 4. AP exam participation by race and ethnicity in 2014

Race/Ethnicity	% HS graduates	% HS graduates who took at least one AP exam
Black	14.5%	9.2%
Latinx	18.8%	18.8%

These numbers suggest that Black students were underrepresented in their AP exam participation compared to their overall percentage of US graduates in 2014 while Latinx student participation was roughly proportional to their overall representation of graduates. However, this may be partially attributable to their high representation in AP Spanish Language, where they comprised 65.6% of exam takers in 2014.⁴⁰ Exam performance is also a critical data point to consider as this determines whether students receive college credit for their AP classes. The following table depicts comparisons by race of AP exam performance over the past 10 years.⁴¹ Specifically, it shows how many students earned college credit by scoring a three, four, or five on their exams.

Table 5. Number of US public school graduates scoring three or higher on an AP Exam

Race/Ethnicity	Class of 2009	Class of 2019	% Increase (10 year)
American Indian/Alaska Native	2,068(0.4%)	1,626(0.2%)	-21.4%
Black	17,661(3.70%)	33,208(4.34%)	88.0%
Latinx	67,887(14.2%)	189,244(24.7%)	178.8%
Asian	56,406(11.8%)	95,141(12.4%)	68.7%
White	305,920(64.0%)	402,451(53.6%)	31.6%
Nation	477,883	764,702	60%

Based on the above data, the number of students scoring at least a three on an AP exam increased across all racial and ethnic groups except for American Indian/Alaska Native between 2009 and 2019. While these overall trends are encouraging, there are persistent racial disparities compared to what we would expect based on student enrollment. According to the [2020 Condition of Education report](#) from the National Center for Education Statistics (NCES), approximately 15% of public school students were Black, 27% were Latinx, 48% were White, and 5% were Asian in 2017.⁴² That same year, 79% of Black students graduated on time, compared to 81% of Latinx students, 89% of White students, and 92% of Asian students. Compared with the total enrollment, we would expect that approximately 13.9% of graduates were Black, 25.6% were Latinx, 50% were White, and

⁴⁰ Kolluri (2018, p. 687)

⁴¹ [College Board \(2020\) AP Program Results](#)

⁴² The most recent year that data was available in the report was 2017

5.4% were Asian. Revisiting data in Table 5, this suggests that Black students only comprised about a third of their expected representation in graduates scoring at least a three on an AP exam, while Asian students comprised about three times their expected representation. White students and Latinx students passed AP exams at a rate roughly proportional to their share of high school graduates. These gains for Latinx students appear to be recent, as they nearly doubled in their representation of graduates passing AP exams over the past 10 years.

Research has consistently shown how racial disparities have persisted during overall gains in AP program participation and performance.⁴³ Much of this seems to ultimately come down to lack of access. According to projections by Theokas and Saaris (2013), if access to AP courses were more equitable, approximately 79,000 Black students, 37,000 Latinx students, and 6,000 American-Indian students would benefit.⁴⁴ In sum, they estimate that if all students attending schools where AP was offered had access to a more equitable number of course options, it would benefit more than 640,000 students from low-income or racial and ethnic minority backgrounds.⁴⁵ This suggests that low-income and racial and ethnic minority students still do not benefit proportionally to the overall expansion of AP.⁴⁶

Virginia

A review of state level data from the College Board on AP test taking and performance indicates that these racial disparities also exist in Virginia.⁴⁷ The following table depicts enrollment in AP STEM courses in Virginia compared to their overall share of the student population. Ratios are calculated by dividing the enrollment percentages in AP by the overall percentage of enrollment within each demographic group, indicating the degree to which students are over or underrepresented in each category. A ratio of 1.0 would suggest exact representation, with each .1 difference representing one decile of over or underrepresentation. Demographic groups underrepresented by at least one decile are shaded in red, while those overrepresented by at least one decile are shaded in green.

⁴³ Kolluri (2018)

⁴⁴ p. 4

⁴⁵ Ibid.

⁴⁶ Conger et al. (2009)

⁴⁷ College Board (2019) [AP Program Participation](#)

Table 6. AP enrollment by race/ethnicity in VA in 2015–2016*

Race/ Ethnicity	%VA Student Enrollment	Overall AP		AP Math		AP Science	
		% Enroll	Ratio	% Enroll	Ratio	% Enroll	Ratio
Black	22.9%	13.3%	.580	9.5%	.415	10.6%	.463
Latinx	14.4%	9.0%	.625	6.7%	.465	7.3%	.507
White	50.5%	60.4%	1.20	61.1%	1.21	60.5%	1.20
Asian	6.6%	12.0%	1.81	17.7%	2.68	16.4%	2.48
American Indian/ Alaska Native	0.3%	0.3%	1.0	0.2%	.667	0.3%	1.0
Native Hawaiian/ Pacific Islander	0.2%	0.2%	1.0	0.2%	1.0	0.2%	1.0
Two or more races	5.1%	4.9%	.98	4.6%	.901	4.7%	.921

AP enrollment based on most recently available OCR data
VA enrollment data from VDOE fall membership reports

These data show that Black and Latinx students were underrepresented in AP while White and Asian students were overrepresented. Latinx students were slightly closer to their expected representation than Black students, but both groups had less than half of their expected representation in AP math. Black students also had less than half of their expected representation in AP science. White students were overrepresented in AP math, science, and overall AP by approximately two deciles. While Asian students had nearly double their expected representation in AP overall, the disparities were most pronounced in AP science (2.48 x expected representation) and AP math (2.68 x expected representation). Consistent with national trends, these disparities have persisted as overall participation in AP has increased over time, with 59,762 students in Virginia taking AP courses in 2008 compared to 79,597 in 2018, an increase of 33.2% over the past decade according to data from the College Board.⁴⁸ Racial disparities also exist in AP science and math courses nationally.⁴⁹

The following table depicts AP test participation and performance in Virginia in comparison to enrollment percentages based on fall membership data from the Virginia Department of Education (VDOE) in 2019.⁵⁰

⁴⁸ College Board (2019) AP Program Participation

⁴⁹ Kolluri (2018)

⁵⁰ VDOE Fall Membership Data (2019)

Table 7. AP testing by race/ethnicity in VA in 2019

Race/ Ethnicity	% VA Student Enrollment	AP Tests Taken		% 3 or Higher	
		%	Ratio	%	Ratio
Black	22%	8%	.363	5%	.227
Latinx	16%	10%	.625	9%	.563
White	48%	55%	1.15	57%	1.19
Asian	7%	19%	2.71	21%	3.00
American Indian/Alaska Native	0.26%	0.127%	.488	.060%	.231
Native Hawaiian/Pacific Islander	0.17%	0.107%	.629	.052%	.306
Two or more races	5.95%	6.68%	1.12	4.23%	.711

Black students had about a third of their expected representation of AP tests taken and about a fifth of their expected representation of students scoring three or higher in Virginia. Latinx students had a little more than half of their expected representation in each category. White students had slightly higher than expected in their representation of AP tests taken and students scoring three or higher. Asian students approximately tripled their expected representation in each category.

Taken together, the above evidence suggests that participation in AP has increased over time across most racial groups, but there remain persistent racial disparities in AP participation and performance across the nation and in Virginia. In the following section we explore socioeconomic differences in AP representation.

Socioeconomic Disparities

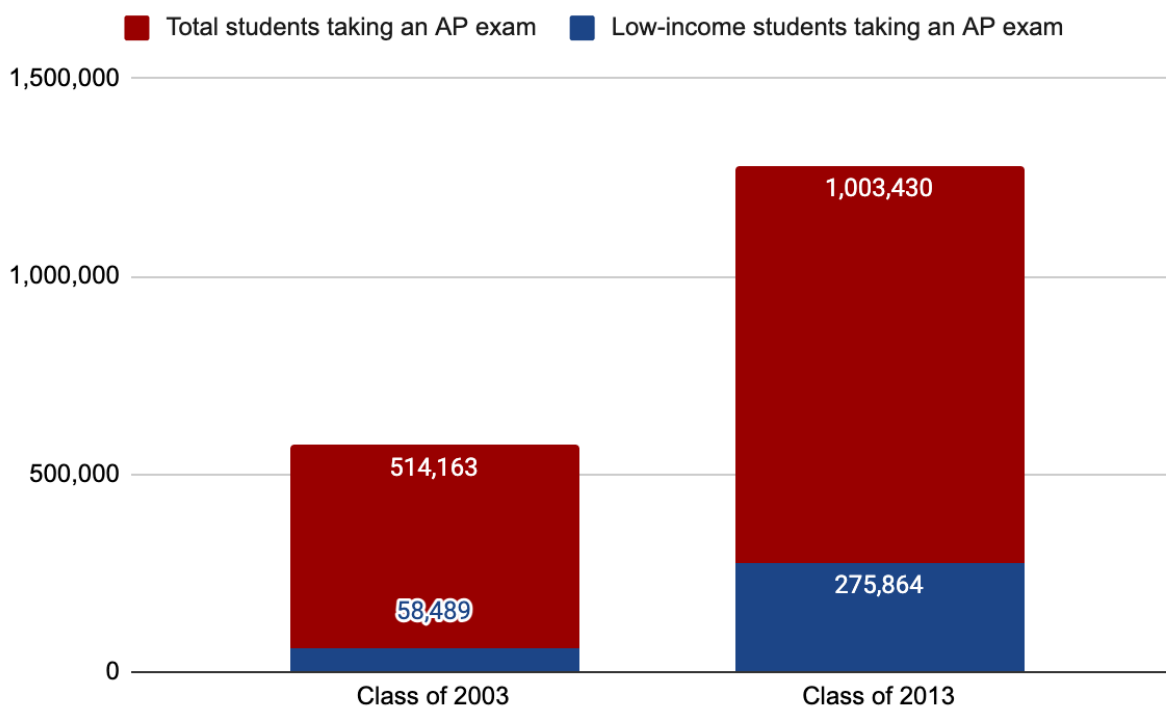
Socioeconomic disparities in AP course participation and performance are also well established in the literature. Low-income students commonly participate in AP courses and exams at rates significantly below their representation in the overall student population.⁵¹ Family income is often the single greatest predictor of AP participation and performance.⁵² Theokas and Saaris (2013) found middle and high-income students were three times more likely to enroll in AP courses than low-income students. The authors noted if the disparity were eliminated, nearly half a million low-income students would be enrolled in advanced

⁵¹ Gagnon & Mattingly (2016)

⁵² Klopfenstein (2004)

coursework. They found that only 10% of the schools in their sample had no significant differences between low-income student representation in AP and their higher income peers.⁵³ The latest *AP Report to the Nation (2014)* also shares disparities in AP exam participation, as depicted in the following figure.

Figure 6. Low-income student AP exam participation 2003 and 2013



The report showed that while the low-income students⁵⁴ participation rate in AP exams quadrupled from 2003 (representing 27.5% of exam takers in 2013), they still only represented 21.7% of students passing exams that year. According to the report, 48.1% of US public school students were considered low-income in the graduating class of 2013, meaning they took AP exams at a little more than half of their expected representation and passed them at a little less than half of their expected representation. That same year in Virginia, 36.7% of students were considered low-income, but they only represented 11.3% of AP exam takers (less than third the expected rate) and 7.6% of students passing exams (approximately one fifth of the expected rate). The most recent report from the College Board indicates that low-income students represented 30.8% of national test takers in 2018.⁵⁵ suggesting that they are increasingly participating in the AP program, but not yet to the point of proportionality.

⁵³ p. 4, 10

⁵⁴ Students qualifying for free or reduced lunch

⁵⁵ College Board (2019) AP Program Participation

Parent educational attainment is an important component of socioeconomic status,⁵⁶ and research shows that it is predictive of AP enrollment and success. Table 8 offers a comparison of students receiving AP course credit based on parent education level.⁵⁷

Table 8. Percent high school graduates with AP course credit 1994-2013

Parent Education	1994	2005	2009	2013
Did not finish high school	8.4	22.1	26.9	29.1
Graduated college	24.1	38.2	47.8	54.4
Ratio (college graduate to no high school diploma)	2.86	1.72	1.77	1.86

In 1994, students whose parents graduated college received AP course credit at nearly triple the rate of those whose parents did not finish high school. While the disparity has narrowed over time as AP participation has increased for both groups, students with a parent who graduated college are still nearly twice as likely to receive AP course credit.⁵⁸ One key method for promoting access to AP for low-SES students is the reduction or waiving of AP exam fees, and students whose parents have lower levels of education are more likely to request these waivers.⁵⁹ According to the College Board, as of 2019, 28 states provided funding for AP exams for their students, and 16 (57%) of those provided funding for all students while the remaining 12 (43%) provided funding just for low-income students.⁶⁰ Virginia was not listed as a state providing AP funding for students in 2019.

Urbanicity and School Resources

School characteristics such as poverty concentration and urbanicity tend to be associated with AP access and support. Theokas and Saaris (2013) found 28% of schools offering an AP program were low-poverty (<25% FRL), 62.5% were middle poverty (25-75% FRL), and only 9.5% were high-poverty (>75% FRL). Schools without an AP program tended to be high-poverty, small, and often rural. Low-income students in urban and rural settings were almost twice as likely to attend schools with “incomplete” AP programs, meaning they did not have at least one AP course in math, science, English, and history. A [2019 report from the National Center for Education Statistics NCES](#) using data from the National High School Longitudinal Study of 2009 found that 99.7% of rural schools offered at least one AP, IB, or dual enrollment course, but schools in suburbs were more likely to offer all three options. The report also showed that only 53.6% of schools with 500 or fewer students offered all three advanced course options, compared to 88.6% of schools with 1,200 or more students.

⁵⁶ Kishiyama et al. (2009)

⁵⁷ Kolluri (2018, p. 685), based on NCES data, 2000 data not provided

⁵⁸ Kollouri (2018, p. 685)

⁵⁹ Wyatt & Mattern (2011)

⁶⁰ [College Board \(2020\) Federal and State Assistance](#)

In a 2014 study using data from the 2009-2010 Civil Rights Data Collection (CRDC), Cisneros and colleagues found that school characteristics were related to the availability of AP courses in high schools in Arizona. While 80% of the 172 public high schools in the sample offered at least one AP course, there was profound variability in where these schools were located as well as how many AP courses they offered. The majority (64%) of schools offering at least one AP course offered between six and 15 courses, while 20% offered five or fewer to their students. Schools offering AP were most likely to be in suburban communities. The schools that did not provide AP tended to be small, ranging in enrollments from 20 to 860 students, with an average of 350 students. The majority (74%) of these schools were located in rural areas and tended to serve a higher percentage of Native American students and lower percentage of White students compared to the overall sample. Of the schools offering at least one AP course, the smallest in the sample also had the fewest number of AP offerings. These findings ring true with national trends as well.

Consistently, suburban schools tend to be more likely to offer robust AP programs to their students. In a 2016 analysis of nationally representative data, Gagnon and Mattingly found that only 51.4% of rural school districts enrolled at least one student in an AP course, compared with 93.8% of suburban and 97.3% of urban districts. They also found that 45.3% of AP-enrolled students in suburban districts passed at least one AP exam compared to 36% of AP-enrolled students in urban districts and 31% in rural districts. Furthermore, they estimated that suburban districts had 6.3 times the odds of offering an AP class compared to rural districts, even after controlling for student socioeconomic status. Still, poverty and race played an important role in their analyses. Suburban districts with “average” poverty levels without low enrollment and not in the highest quartile of racial minority students had a 93% chance of offering AP courses compared to only a 14% chance for a rural, remote, high-poverty school district. The authors argued that along with having less racial segregation and poverty concentration, larger student enrollment tends to be advantageous for suburban districts to support a more robust AP program.

The relatively high availability of AP courses in suburban schools and districts may partly be a function of history, as the program was originally available in wealthier schools outside of urban areas when it first emerged in the 1950s and 60s.⁶¹ This occurred at the same time as massive numbers of White and affluent families moved to suburban districts, taking resources with them.⁶² It may also be a function of policy. Larger suburban schools are more likely to have sufficient numbers of students already enrolled in AP math, science, social studies, and English courses to meet accountability standards, creating a cycle of not needing to expand AP to more underrepresented students because they have already met the general enrollment criteria.⁶³ Furthermore, they are more likely to have large enough enrollment overall and in traditionally high participating subgroups (White, Asian, and high-SES) to offer a wide variety of AP course offerings.⁶⁴

Yet, attending a suburban school with greater AP availability is not always enough to ensure more proportionate participation by low-SES and racial and ethnic minority students. For

⁶¹ Schneider (2009)

⁶² Rury & Rife (2017)

⁶³ Beach et al. (2019)

⁶⁴ Kolluri (2018)

example, Kettler and Hurst (2017) found that AP participation increased from 15.6% of students in 2001 to 24.3% of students in 2011 in the suburban Texas high schools in their sample. During this same span, the participation rate for Black students increased from 7.88% to 16.3% and the participation rate for Latinx students increased from 11.9% to 20.4%, while the White student participation rate increased from 18.8% to 29.3%. Thus, AP participation increased for all student demographic groups, but persistent disparities remained, with Black students participating at 10.9 percentage points lower than White students in 2001 and 13 percentage points lower in 2011 (an expansion in disparity by 2.1 percentage points). As discussed [later in this review](#), a myriad of factors contribute to persistent disparities in AP participation and performance in suburban schools that offer the greatest access.

Palencia (2020) conducted a study looking at the availability of AP courses in Virginia based on urbanicity using 2015-16 CRDC data. In Virginia, suburban and urban schools were more likely than their rural counterparts to offer AP coursework. Out of traditional school settings, 304 schools (87%) offered at least one AP course. In regard to urbanicity, over 90% of suburban and urban schools offered at least one AP course, compared to 78% of rural schools. Suburban schools had the highest number of course offerings available ($M = 19.58$ courses), followed by urban schools ($M = 16.96$ courses). Suburban schools had twice the number courses available compared to rural schools ($M = 9.87$ courses). There were further disparities, as rural students were less likely to have access to AP STEM courses as well. Out of schools offering AP in Virginia, only 61.4% of rural schools offered AP math courses, compared to 95.1% of suburban and 91.7% of urban schools. Ultimately, in Virginia, suburban schools provided a more robust AP program both in regard to the amount of course offerings and access to a variety of coursework.

Taken together, the preceding research suggests that although AP participation and performance is increasing nationally, there are enduring disparities for students from lower-SES and racial or ethnic minority backgrounds, as well as those attending urban or rural schools. In the following section, we explore the potential consequences of these disparities.

WHY DO DISPARITIES IN AP MATTER?

AP classes offer opportunities to engage in rigorous coursework and gain exposure to college level curricula. Having access to a rigorous curriculum is associated with stronger high school graduation rates as well as higher college enrollment and completion.⁶⁵ Advanced coursework is also tied to stronger self-efficacy and self-perception.⁶⁶ Furthermore, students participating in AP tend to have a richer educational experience,⁶⁷ as advanced classes are associated with more experienced teachers⁶⁸ and AP teachers often complete additional rigorous training in their subject area in order to teach within the program.⁶⁹ In light of these benefits, we explore the implications of enduring racial and socioeconomic disparities in AP. This includes college readiness, enrollment and persistence, as well as social reproduction and economic opportunity.

College Readiness, Enrollment, and Persistence

A strong indicator of college readiness is access to a rigorous curriculum such as AP in high school.⁷⁰ According to the College Board, AP courses are intended to help students get exposure to college level work and develop academic skills necessary to be successful in college, such as time management, critical thinking, and scholarly writing. AP classes also tend to have a greater amount of instructional time, as classes are more likely to be taught “bell-to-bell.”⁷¹ This leads to deeper academic engagement and higher performance expectations,⁷² promoting a self-fulfilling prophecy of academic achievement in participating students.⁷³ Although the program was initially created for high school students who were already college bound,⁷⁴ the college preparatory benefits of AP may be particularly important for low-SES and racial or ethnic minority students who are more likely to be the first in their family to attend or graduate from four-year college (also known as “first generation.”)⁷⁵

AP coursework and exams are integral not only to college preparation and readiness, but the admission process, as well.⁷⁶ For many colleges and universities, enrollment and participation in AP is a signal of a student’s academic ability and college readiness.⁷⁷ Furthermore, AP scores are often used by colleges as a proxy for college-level academic achievement.⁷⁸ AP exam performance is associated with greater college acceptance rates

⁶⁵ Scafidi et al. (2015)

⁶⁶ Hurt (2018); Lewis & Diamond (2015)

⁶⁷ Lewis & Diamond (2015)

⁶⁸ Scafidi et al. (2015)

⁶⁹ Shores et al. (2019)

⁷⁰ Theokas & Saaris (2013)

⁷¹ Oakes et al. (2005)

⁷² Lewis & Diamond (2015)

⁷³ Tyson (2013)

⁷⁴ Rothschild (1999)

⁷⁵ Atherton (2014); Martin Lohfink & Paulsen (2005)

⁷⁶ Cisneros et al. (2014)

⁷⁷ Ibid.

⁷⁸ Kolluri (2018)

and financial aid awards, even when controlling for demographics.⁷⁹ It is also positively associated with college enrollment,⁸⁰ freshman year GPA,⁸¹ and on-time college completion.⁸² Although performance on AP exams is positively correlated with postsecondary achievement outcomes, program participation alone is not as consistent of an indicator of college performance.⁸³

In a 2008 study by Hargrove and colleagues, researchers compared the postsecondary outcomes of Texas college students who fit into one of three groups in high school: 1) those who took AP courses and exams, 2) those who took AP courses without taking exams, and 3) those who took non-AP courses (dual enrollment and other courses). They found that among these groups, the students who took AP courses and exams tended to outperform students in the other groups in their first and fourth year college GPA and credits earned, and four-year graduation status. Importantly, they found that AP course and exam takers tended to perform significantly better in college than students who only took AP courses, even after controlling for SAT scores and free and reduced priced lunch (FRL) qualification (a proxy for SES). Revisiting earlier findings that an estimated 30–40% of AP course takers do not take an AP exam,⁸⁴ this suggests that there is a large share of AP students who might not be getting the maximum potential postsecondary benefits of the program beyond earning college credit while in high school. Furthermore, data discussed previously in this review demonstrated that [Black and Latinx students are underrepresented in not only AP course enrollment, but also AP exam takers in Virginia](#). Taken together with findings from Hargrove and colleagues, this suggests that it is important to go beyond expanding AP access for these students but to also ensure that they are able to take the exams (particularly Black students).

Students who pass an AP exam and consequently place out of college courses often tend to match or exceed the performance in advanced college courses of students who had to take introductory college coursework.⁸⁵ Furthermore, college completion or bachelor's degree attainment is positively associated with the degree of rigor in the courses students take in high school.⁸⁶ The number of AP courses, as well as levels of math coursework taken are also school-level predictors of bachelor's degree attainment.⁸⁷ Thus, the benefits of AP participation extend beyond college readiness. Access and participation in AP impacts college admissions, enrollment, financial aid awards, college persistence and bachelors degree attainment.

Rigorous education is tied to better academic opportunities and outcomes in K12 settings, but the pipeline ultimately extends to greater potential economic gains associated with higher postsecondary achievement.⁸⁸ Because of this, AP courses are positioned to not only

⁷⁹ Cisneros et al. (2014)

⁸⁰ Ibid.

⁸¹ Kettler & Hurst (2017)

⁸² Ibid.

⁸³ Hargrove et al. (2008)

⁸⁴ Adams (2014)

⁸⁵ Cisneros et al. (2014)

⁸⁶ Kettler & Hurst (2017)

⁸⁷ Kolluri (2018)

⁸⁸ Moller & Stearns (2012); Tyson (2013)

promote learning opportunities in school, but also potentially facilitate lifelong benefits for all students if offered more equitably.

Social Reproduction and Economic Opportunity

AP participation engenders not only an academic pipeline, but an economic pipeline as well. Bowles and Gintis (1976) argue that a key purpose of schooling is to prepare students for their economic place in society, observing that students from low-income or working class families follow an academic track leading to working class jobs, while students from more affluent backgrounds follow an academic track leading to jobs requiring higher education.⁸⁹ In this way, schools often engage in social reproduction where students follow generational socioeconomic tracks more often than they improve their future prospects.⁹⁰ The AP program often functions as a mechanism of such social reproduction, as it tends to reinforce the structures that track some students into opportunities for higher education and creates barriers for others by denying access or support.⁹¹

In a 2013 study, Klugman explored the effects of California's 2003 expansion of AP course offerings to address inequities identified in the [lawsuit discussed earlier in this review](#). Using a longitudinal, mixed-method approach, the author found that the greatest predictor of AP courses in California schools (even after expansion) was the presence of upper middle class students. Additionally, findings suggested that even as AP courses expanded in higher-poverty schools, they continued to expand in lower-poverty schools, thereby perpetuating the inequities that the effort intended to address. Furthermore, schools serving predominantly White and Asian students saw greater expansion than schools serving predominantly Black and Latinx students. Qualitative interview data indicated that leaders in more affluent schools and districts perceived a greater demand for AP expansion and reported greater initiative taken by their staff to onboard additional courses. These findings illustrate the mechanisms by which students who are already in an advantageous position in terms of access to AP are able to maintain privilege despite efforts to address documented inequities. Although AP access has diversified since its origination, expansion has still disproportionately benefited more affluent students and their families, allowing them to maintain a level of prestige in an increasingly saturated AP landscape.⁹²

Considering the [persistent correlation between higher education, employment, and earnings](#), students who do not have equitable access to college preparation through programs like AP will become increasingly shut out of corresponding economic opportunities. Theokas & Saaris (2013) characterized this as ultimately creating a permanent national recession while reducing engagement in citizenship and compromising health outcomes of students who are left "missing" from AP. Passing AP scores provide students with an opportunity to receive college credit at a far cheaper rate than enrolling in the equivalent classes at a university.⁹³ This allows students to save both time and money, which is especially important for lower SES students who are more likely to be first

⁸⁹ Kolluri (2018)

⁹⁰ Bourdieu (1986)

⁹¹ Kolluri (2018)

⁹² Ibid.

⁹³ Klugman (2013)

generation⁹⁴ and more likely to have to take out loans to pay for college.⁹⁵ They are also more likely to have to work part or full time while attending college,⁹⁶ making missed opportunities for earning college credit while in high school particularly impactful. The unique circumstances faced by low-income first generation college students are highly consequential when evaluating access to AP, particularly considering the costs of attending college.

According to the [2020 Trends in College Pricing and Student Aid report](#) from the College Board, the national average in the 2020-2021 academic year for tuition, fees, books, room and board for a public, in-state, four-year institution is \$26,820 (\$18,550 two-year). Course materials alone cost \$1,240 at a four-year institution and \$1,460 at a two-year institution. In the 2019-2020 academic year, the average undergraduate student received \$14,940 in financial aid: \$9,850 in grants (which do not need to be repaid), \$4,090 in federal loans, \$920 in education tax credits and deductions, and \$60 in federal work study. Although average loan dollars for undergraduate and graduate students has slightly decreased over the past decade when adjusting for inflation, 55% of borrowers owed less than \$20,000 while 10% owed more than \$80,000. Over a 20 year period from 1989-2019, the average income for families in the top socioeconomic quintile increased 56% while it only increased 21% for families in the lowest quintile. This suggests that higher SES families have grown increasingly likely to be able to afford the rising cost of college in comparison to lower SES families who may be more likely to need loans to pay for school. The total national student loan debt in 2020 was about \$1.56 trillion.⁹⁷ Passing AP exams, which cost \$95 (or less with a fee waiver) could translate into thousands of dollars saved in tuition for courses that qualifying students no longer have to take. Inequitable access to AP therefore has considerable implications for perpetuating rather than accelerating students' inherited socioeconomic circumstances.

AP has the potential to create greater academic and economic opportunity for underserved students, but has historically perpetuated privilege. Furthermore, efforts to expand the program have often not addressed disparities in access that tend to contribute to social reproduction rather than opportunity for upward mobility. In the following section we explore the prominent factors outlined in the literature that contribute to disparate representation in AP course taking and completion.

⁹⁴ Atherton (2014)

⁹⁵ Martinez et al. (2009)

⁹⁶ Stephens et al. (2012)

⁹⁷ [Friedman \(2020\)](#)

WHAT FACTORS CONTRIBUTE TO DISPARITIES IN AP PARTICIPATION AND PERFORMANCE?

Research identifies several factors contributing to longstanding access and performance disparities in AP programs. In this section we discuss parent, student, and school level factors identified in the literature that perpetuate inequity in the AP program.

Parental Influence, Advocacy, and Perceived Involvement

Enrollment in an AP course tends to be a joint decision made between students, parents, and school officials. Thus, it is imperative to understand the unique role that parents can play in this process. In a 2007 study, VanSciver interviewed 77 low-income and racial minority students from grades 6-10 participating in an “Advanced Placement Incentive” program designed to promote enrollment. The students reflected on their decision-making processes for selecting classes and reported that they often enrolled in less rigorous courses in order to earn higher grades and please their parents. Parents of low-income students interviewed in the study also reported that they tended to trust the recommendations of the school for the courses that their children should take rather than pushing back if they perceived a course to be too rigorous. In a related study, Taliagerro and DeCuir-Gunby (2008) interviewed Black educators about their perceptions of opportunity gaps in AP for Black students. Participants observed that they felt it was an important part of their job to provide information about AP and advocate for their students to enroll, particularly when they perceived parents not providing such advocacy. The authors recommended that schools routinely reach out to parents of Black students to discuss opportunities for enrollment in AP courses and the myriad of academic, postsecondary, and economic benefits they can offer. This also reflects a school level factor about potential gaps in information about AP provided to families from racial and ethnic minority backgrounds.

By contrast, research shows that higher SES parents (who are also often White) tend to be more likely to ensure that their children have access to AP courses by intentionally enrolling in schools with more AP program offerings and pushing back against recommendations by school personnel for their children to take less rigorous course options.⁹⁸ In their 2015 book *Despite the Best Intentions*, Lewis and Diamond interviewed stakeholders in a racially and socioeconomically diverse high school with persistent disparities in advanced course representation. In their interviews, teachers reported making decisions about recommending White students for AP or honors courses (even when they were not sure that they would be an appropriate fit) out of anticipated pushback by their parents. Additionally, White parents who were interviewed indicated that they pushed their children to be in honors and AP classes because they perceived them to be the only quality classes in the school, inadvertently acknowledging that racial minority

⁹⁸ Lucas (2001)

students received a lower quality education than their children. This practice is commonly referred to in the literature as “opportunity hoarding,” which is a mechanism by which those in a majority position maintain elite status by ensuring access to desirable resources to the detriment of others.⁹⁹ Teachers and administrators shared recurring instances of White parents contacting the school to get their children transferred out of “mixed-ability” classes so they would not be with “non-honors” students, often threatening to move out of the district if their requests were not granted. Relatedly, White parents reflected in their interviews that the academic level of the classes that their children took were the main reason they did not interact much with students of different races.

Importantly, these resultant disparities are not necessarily emblematic of higher SES or White parents being more involved in the education of their children. According to Taliagerro and DeCuir-Gunby (2008), educators often perceive the comparative lack of visibility by Black parents as their disinterest or uninvolvedness. Black and Latinx parents interviewed for Lewis and Diamond’s (2015) book reported being highly involved in the education of their children, even if they did not always exhibit that involvement by interfacing with the school. Similarly, Baird (2015) found that Latinx parents tended to be heavily involved in the education of their children at home, even if they do not routinely interact with school personnel. Misinterpretation of parental involvement can lead schools to provide less information about advanced coursework opportunities like AP to parents from racial and ethnic minority or lower socioeconomic backgrounds.¹⁰⁰

Student Motivation

Belonging is a prominent student level factor discussed in the literature related to AP enrollment. Some students may be hesitant to enroll in AP courses due to concerns about being the only racial or ethnic minority in their class.¹⁰¹ Walker and Pearsall (2012) conducted interviews with Latinx students at a suburban high school to learn more about their underrepresentation in AP classes. Although the students largely reported feeling supported by their parents and teachers to enroll in AP, they also expressed concerns about “being the only Brown kid in class.”¹⁰² In a related study, Bjorklund (2019) interviewed 10 Latinx students in AP and honors classes at one high school and found that they reported a low sense of belonging as well as pressure to not confirm perceived negative stereotypes by their peers about their heritage. Gray (2017) characterized this internal conflict as “standing out” or “fitting in,” arguing that while it is critical to help racial and ethnic minority students feel a sense of belonging in their courses, there are also potential benefits to helping students feel a sense of distinctiveness. Analyzing survey data from 702 racially and socioeconomically diverse high school students from 33 classrooms, the author found that feelings of “standing out” in classes were associated with valuing advanced coursework, similar to students who reported feelings of “fitting in.” This suggests that helping underrepresented students enroll in AP classes is a critical step, as there are potential motivational benefits of belongingness as well as distinctiveness once enrolled.

⁹⁹ Tilly (1998)

¹⁰⁰ Lewis & Diamond (2015)

¹⁰¹ Cisneros et al. (2014)

¹⁰² p. 18

Lower academic self-confidence is another commonly cited reason for racial or ethnic minority students being underrepresented in AP.¹⁰³ Burton and colleagues (2002) explored the experiences of AP Calculus and AP English Literature teachers who were successful in promoting racial minority student representation in their classes. Teachers reported that helping students build a sense of confidence that they could do the work was among the more important things they could do to enroll and retain them. The College Board advocates that building confidence in the ability to do college level work is one of the key [purposes of AP courses](#). This further emphasizes the importance of ensuring that access to AP extends beyond students who already demonstrate this self-efficacy for postsecondary level achievement. Importantly, research has also shown that racial minority students in AP classes do tend to exhibit academic self-confidence. For example, Allio (2017) analyzed survey data from students enrolled in AP courses in New York and found that there were no significant differences in academic self-confidence based on students' race or ethnicity. Similar to research related to student belonging, this suggests that helping underrepresented students feel confident enough to enroll in AP courses is important, as their confidence for completing college level work (once enrolled) may be similar to their peers if properly supported.

Teacher Quality

It is well-documented in the literature that students in high-poverty schools are often taught by teachers with less experience and certification.¹⁰⁴ Research also shows potential discrepancy in the quality of Advanced Placement course instruction by school poverty level. Hallet and Venegas (2011) interviewed 48 students attending low-income¹⁰⁵ urban high schools about their perceived preparedness for AP exams and compared their AP course grades with their exam scores. They found that students earned an average course grade of B/B+ across in their AP courses, which would translate into an expected exam score of 4.31/5. However, their average exam score was 2.42 (course grade equivalent = D+). This tended to be true across subject areas, with the starkest difference coming in AP History, with an average course grade of B/B+ (anticipated exam score = 4.53) and an average exam score of 2.18 (course grade equivalent = D). The authors found that there was consistently a two letter grade difference between course grades and exam scores, which was statistically significant. Student interview data indicated concerns about insufficient preparation for the AP exam by their teachers. The scope and methods of this study limit the potential generalizability of the findings, but it does emphasize the critical role that teachers play in preparing students for success in AP.

Bias in AP Exams

Demographic disparities in AP exam performance may be attributable, in part, to bias in the creation and scoring of the exams. As [previously discussed in this review](#), AP curricula and exams are developed by committees composed of university faculty and AP teachers. The

¹⁰³ Cisneros et al. (2014)

¹⁰⁴ Almy & Theokas (2010); Stosich (2016)

¹⁰⁵ The authors did not define their criteria for determining a “low-income” school

College Board does not offer any guidance or articulate any standards for promoting racial diversity in these committees, introducing the potential for bias in the course content and exams they create. Furthermore, the process for scoring essay portions of AP exams can lead to biased interpretation of students' responses. A 2011 study by Graber used discourse analysis to analyze commentary from AP exam scorers and compare it to student performance on the essay portion of the AP Language and Composition exam from 2000-2010. The author found that higher SES students tended to receive more favorable comments, arguing that stronger performance on the exam may be more reflective of demonstrating capital consistent with middle and higher socioeconomic statuses than writing competencies.

Racial and Socioeconomic Segregation Due to Academic Tracking

Academic tracking is the “educational practice of categorizing and classifying students by curriculum standards, educational and career aspirations, and/or ability levels.”¹⁰⁶ Proponents of tracking argue that ability grouping is an efficient model for education that allows teachers to focus on the subject matter at hand while teaching students with higher or lower academic “ability,” without the need for differentiated instruction.¹⁰⁷ However, educational researchers argue that the continuation of ability tracking will only perpetuate the current racial and socioeconomic inequities in AP.¹⁰⁸ Prior to the 1980s, tracking was a strict practice forcing students into either an academic, college-bound track, or a vocational, trade-focused track from the start of junior high, with low-SES and racial minority students disproportionately placed into vocational tracks.¹⁰⁹ From the 1980s to today, the goal of public education has largely shifted from guiding students to the academy or a trade, toward promoting higher education for the majority of students.¹¹⁰ Modern tracking, to match that goal shift, now sorts students by academic ability within subjects, systematically granting access to advanced coursework for some students, while excluding others.¹¹¹

Today, tracking typically involves the use of a student's end of year grades in a subject or standardized test scores to determine whether they are placed by the school into an advanced course, standard course, or a remedial course beginning, most often, in middle school.¹¹² Additional tools may also be used to identify students for advanced coursework,

¹⁰⁶ Akos et al. (2007, p. 58)

¹⁰⁷ Rubin (2007); Miller (2018)

¹⁰⁸ Allensworth, et al (2009)

¹⁰⁹ Anderson (1988); Hallinan (2006). Note. Anderson writes in *The Education of Blacks in the South, 1860-1935*, that Black people were often denied a formal education in general prior to the *Brown* decision in 1954. Anderson writes that White politicians and educational leaders systematically defrauded Black schools and communities by collecting taxes meant for Black schools and using them to pay for the improvement of White schools. Black communities often supported Black schools with their own money in the US South, on top of paying surplus taxes that did not benefit their own communities.

¹¹⁰ Hallinan (2006)

¹¹¹ Ibid.

¹¹² Ibid.

such as counselor, teacher, or parent recommendations.¹¹³ Altogether, this is intended to make tracking and placement an objective system that enables teachers of advanced coursework to teach students who have previously demonstrated higher level achievement.¹¹⁴ However, tracking often does not solely group students by “ability” in practice, instead creating multiple education systems in the same school separated by race and class.¹¹⁵ This systematically produces advanced course tracks that are overwhelmingly White and affluent, while remedial tracks are disproportionately filled with students of color and students from low-SES backgrounds.¹¹⁶ The ostensibly “objective” grading criteria used to determine eligible students for advanced courses like AP is partly to blame for this, as research has consistently shown that grading practices are often subjective and therefore vulnerable to bias,¹¹⁷ and that standardized tests often tend to be written from a White and middle class cultural lens.¹¹⁸ These problems associated with tracking tend to have early and long-term consequences.

Academic preparation and detracking before high school

Proponents of detracking argue that it is necessary at lower levels of schooling in order to disrupt future disparities in access and achievement in high school.¹¹⁹ Gifted and talented program selections in elementary schools often exclude low-income students and students of color, even when they perform at the same level as their White and more affluent peers.¹²⁰ This can be based on racist assumptions of students’ intelligence, aptitude, and motivation.¹²¹ For a more in-depth discussion of promoting equity in gifted programs in elementary school, see our [companion MERC literature review on the topic](#). Middle school tracking most often occurs in math, where marginalized student populations are placed in less rigorous pathways that prevent them from taking algebra I by the 8th grade.¹²² Students are then subsequently prevented from accessing advanced math coursework in high school (like AP) because they did not receive critical math skills instruction in middle school or meet the prerequisites for higher level math course enrollment.¹²³ This results in a three-level system of tracking that compounds disadvantage through schooling such that those not participating in accelerated tracks in elementary and middle school are bound to take fewer advanced courses in high school.¹²⁴

Academic preparation is a key concern documented in the literature regarding racial and ethnic minority student participation and performance in AP courses, and one of the

¹¹³ Lewis & Diamond (2015)

¹¹⁴ Rubin (2006)

¹¹⁵ Miller (2018)

¹¹⁶ Cipriano-Walter (2015); Kohli (2014)

¹¹⁷ Malouf & Thorsteinsson (2016); Quinn (2020)

¹¹⁸ Grissom et al. (2017); For a more in-depth discussion of bias in standardized testing, see our [companion MERC literature review on equity in gifted and talented programs](#).

¹¹⁹ Hallinan (2006)

¹²⁰ Grissom et al. (2019)

¹²¹ Morris (2001)

¹²² For more information about middle school math detracking, see Rui’s (2009) review of forty years of detracking research, covering mostly middle school reforms.

¹²³ Rui (2009)

¹²⁴ Conger, et al. (2009)

fundamental challenges is that underrepresented minority students are more likely to have less access to rigorous coursework to adequately prepare them to successfully complete AP courses.¹²⁵ According to Kolluri (2018), critics of AP program expansion have historically expressed concerns about the program being “watered down” by the inclusion of less academically prepared students.¹²⁶ Even with efforts to detrack students in earlier grades, maintaining an AP program that is geared toward the already highest performing students with strict standards for entry would only serve to delay tracking until high school. Educators invested in promoting a more equitable AP program should remain mindful of the potentially detrimental effects of early tracking on academic preparedness, along with other ways that this practice can prove inhibitory such as reproducing low expectations for student performance.

Educator expectations and bias

Research has shown that low expectations by teachers can be harmful for student performance, with marginalized student groups often being most susceptible to their effects.¹²⁷ These expectations often tend to manifest through the processes of tracking. A Black student interviewed by Lewis and Diamond (2015) recalled showing up for the first day of his honors English class, only to be told by his teacher that he was in the wrong section and should come back next period for her standard level class. An administrator interviewed for the study recounted observations of standard level classes where instruction was not bell to bell, remarking on the lack of academic rigor and low expectations that were apparent in the classroom. The authors argued that instances like these tended to create a stereotype threat where students were more likely to underperform in circumstances where they felt they were expected to perform worse. Furthermore, this contributed to a self-reinforcing “status hierarchy” in the school, where students began to internalize that White students belonged in higher tracked courses like AP while Black, Latinx, and low-SES students belonged in standard and remedial courses.

Rowland and Shircliffe (2016) investigated the perspectives of educators around expanding access to AP courses in a Florida high school. In an interview, the district leader who led the initiative indicated a need to shift the culture of thought around who was eligible for AP exams, using PSAT test scores to identify students who were in the “academic middle,” who could potentially be successful. Bias emerged as a barrier to AP program expansion in this study when teachers reported hesitancy based on the perception that they needed to maintain high exam scores among their students because they would be part of their upcoming evaluation. While the inclusion of exam scores in teacher evaluations proved to be a problematic deterrent in promoting AP expansion, it was based on the biased perception that diversifying AP classes would likely lead to lower scores. This represents a clear example of how bias can inhibit racial and ethnic minority student representation in AP.

¹²⁵ Kolluri (2018)

¹²⁶ p. 685

¹²⁷ Sorhagen (2013); For further discussion on the implications of low expectations for advanced coursework performance, see our companion [MERC literature review on equity in gifted and talented programs](#).

Systemic biases like this can cause stressors on students from marginalized populations, which is often associated with drops in academic performance and changes in school-based behavior that might be perceived by educators as disruptive or evidence of inability to perform in future advanced coursework opportunities.¹²⁸ Thus, low expectations often facilitate tracking students into less rigorous academic courses, which promotes further low expectations and stereotype threat, undermining potential future enrollment in advanced courses like AP.

Underidentification

Research has repeatedly shown that high-achieving students from racial minority and lower socioeconomic backgrounds are often overlooked for AP.¹²⁹ This can occur even when they demonstrate comparable levels of prior academic achievement as their White, Asian, and higher-SES peers.¹³⁰ In a 2011 study, Corra and colleagues analyzed data from the North Carolina Department of Public Instruction to determine how race and gender predicted enrollment in AP courses based on student scores on the SAT. Researchers found that Black students were under-enrolled in AP based on what their SAT performance would suggest, and that race tended to be a stronger predictor of under-enrollment than gender. Findings indicated that high achieving Black students were more likely to be omitted from the AP program than their high achieving White peers. A clear implication of this finding was that school-level policies could be adjusted to promote more equitable AP participation, just as it had apparently been suppressed through practices like academic tracking.

Gatekeeping

Although AP courses are theoretically available to all students regardless of whether they participated in gifted programs in elementary school, there is often expectation by students and educators alike about who should be participating.¹³¹ Sole reliance on teachers, counselors, and administrators to enroll students in AP courses arouses concerns of potential “gatekeeping” in schools, a process by which those individuals’ decisions serve as a determining factor for student placement in the program.¹³² Teacher and counselor recommendations can act as a barrier and potentially dissuade Black students from participating in AP courses,¹³³ particularly if those students do not have existing relationships with the educators providing the recommendations.¹³⁴ In Lewis & Diamond’s (2015) book, racial minority students reported feeling pushback from teachers and department chairs when trying to enroll in advanced courses, and their parents reported having to convince some of their child’s teachers through follow up phone conversations that he or she was appropriately prepared for the rigor. This stands in stark contrast with testimonies from teachers who reported promoting the enrollment of White students in rigorous courses due to the mere idea of pushback from their parents. This exemplifies a

¹²⁸ Lewis & Sekaquaptewa (2016); Levy et al. (2016)

¹²⁹ Burney (2010); Theokas & Saaris (2013); Vansciver (2006)

¹³⁰ Grissom et al. (2019)

¹³¹ Kettler & Hurst (2010); This is consistent with prior discussions of the historical foundation of AP.

¹³² VanSciver (2006)

¹³³ Davis et al. (2018)

¹³⁴ Urdan & Schoenfelder (2006)

process of inequitable gatekeeping to protect AP enrollment rather than intentional recruitment efforts to expand and diversify it.

Burton and colleagues (2002) explored how teachers and principals viewed the AP program in their schools through a questionnaire and focus groups. They found that while 44% of principals surveyed indicated that they took special efforts towards making racial minority students aware of AP courses available to them, only 21% of AP Calculus teachers and 31% of AP English Literature teachers said the same. Teachers largely indicated that they did not consider recruitment for AP to be part of their jobs. In their efforts to advocate for more equitable representation of racial minority and low-SES students in AP, [the College Board has called for “removing gatekeeping mechanisms,”](#) arguing that “all motivated and academically prepared students who want to take AP courses should be allowed to do so.”¹³⁵ At the same time, they proposed “teacher identification and recommendation of potential AP students.” Given research evidence of how teacher recommendations can serve as a gatekeeper to the AP program, efforts to promote greater equity in the program should instead center on active recruitment of underrepresented students.

Special education, English Learners, and AP

Students who are English Learners (EL) or receive special education services tend to be underrepresented in AP courses. In a 2008 study analyzing student course taking data from the Texas Education Agency’s Academic Excellence Indicator System (AEIS), Moore and Slate found that only 4.49% of special education students and 6.37% of English Learners took an AP course in the 2005-2006 school year, compared to 10.5% of economically disadvantaged students, 11.2% of Black students, 11.9% of Latinx students, 13.3% of male students, 17.2% of female students, 18.8% of White students, and 14.7% of students overall. This suggests that these student groups tend to be the most unlikely to take AP. While these enrollment disparities may be explainable in part by prior academic achievement, research suggests that some of the tracking factors described above may similarly impact English Learners and students in special education. In a 2015 qualitative study by Kangas and Cook, the authors interviewed 10 English Learners with diagnosed learning disabilities in a high school, as well as their teachers and special education coordinators. The students reported feeling limited in their access to more rigorous courses at their school. Additionally, the authors found conflicting perspectives by educators in the school about the most beneficial placement for these students, with their teachers often advocating that they needed to be in lower tracked courses while their special education director argued that they would likely fare better in a higher tracked courses with appropriate modifications. The takeaway from this research is that while students with disabilities and English Learners may require additional support, it is important that this does not preclude them from taking higher level courses like AP when they express interest and appropriate accommodations can be offered.

¹³⁵ College Board (2012, p. 2)

Addressing Disparities in AP

This section offered an overview of prominent factors discussed in the literature that contribute to historical and enduring disparities in AP program participation along racial and socioeconomic lines. While some of these documented factors are agentic and reflective of student and parent decision making, many are systematic and reflective of school and district policies and practices that inhibit equitable enrollment and success in AP. In the following section, we review recommendations from the literature about what can be done at the school and district level to help ameliorate this long-standing issue and make AP participation in schools more demographically proportionate to the student populations they serve.

WHAT POLICIES AND PRACTICES HELP TO ADDRESS DISPARITIES IN AP ACCESS, ENROLLMENT, AND PERFORMANCE?

In this section we review policies and practices discussed in the literature that help to expand and diversify enrollment in AP courses and equitably promote success for students, once enrolled. The section begins with a review of prominent policies related to AP expansion, followed by a discussion of how detracking policies can offer benefits within and beyond AP. We then discuss recommendations from the literature for interventions, resources, and supports designed to promote greater access and success for students once they are enrolled in AP courses.

Prominent Policy Initiatives Related to AP

States and school districts frequently implement policies intended to expand AP program access and promote success on AP exams for participating students. We discuss three prominent examples here: inducement/incentive policies, accountability policies, and virtual AP. Although these efforts may show some short term benefits in relation to AP expansion, they often disproportionately benefit students who tend to already be overrepresented in the program. For each policy, we discuss where they may fall short of promoting greater equity in AP and what adjustments can be made to improve their potential impact.

Inducement/incentive policies

One of the most prevalent policies for increasing AP access are state-level AP inducement programs.¹³⁶ Their basic function is to provide financial rewards to AP teachers and students for each passing exam score. They can also help subsidize the cost of AP exams for students in need. Inducement and incentive programs appear successful in producing short term gains in access for financially disadvantaged students and students of color into AP courses, but the evidence supporting performance based monetary incentives is not as clear. Jeong (2009) examined nationally representative AP exam data from the Educational Longitudinal Study of 2002 to explore the apparent impacts of inducement programs on AP enrollment and performance for underrepresented students. AP fee subsidies were related to significant increases in the odds of students, especially those from disadvantaged backgrounds, enrolling in AP courses and taking the exams. However, financial incentives provided to teachers at the state level were not significantly associated with success in an AP course, defined as passing the exam. Furthermore, while fee waivers increased participation by low-income and racial minority students, this did not erase disparities compared to White and higher-income peers. The author suggested that while providing fee waivers through an inducement program can serve as an incentive, they are likely not enough to entirely address inequities in academic preparation for AP. Furthermore, the

¹³⁶ Jeong (2009)

author found that these programs often did not provide resources for teachers to provide the supplemental support necessary to ensure that all students could be successful on AP exams.

Jackson (2010) conducted an evaluation of the Advanced Placement Incentive Program (APIP) in Texas. The program offered financial incentives for students and teachers for passing scores on AP exams. In the first two years after enactment, APIP was associated with a significant and positive increase in the number of Black and Latinx students who took at least one AP course. In addition, it appeared to accurately target students in need of access, as there was no reported increase in the number of White students who took at least one AP exam, meaning the gains in exam participation appeared to therefore primarily come from underrepresented groups. Program implementation was also associated with significant gains in ACT and SAT scores across all racial and ethnic groups, particularly for Latinx students. Significant effects for financial incentives appeared to have a ceiling effect, with the maximum benefits coming from offering students between \$101 and \$499 for passing an exam. However, according to a more recent study by McBride and colleagues (2015), the APIP program appeared to be successful in primarily symbolic AP expansion, as significant increases in enrollment for Black and low-income students did not correspond with any proportional gains in passing AP exams. These results suggest that the majority of financial reward dollars for APIP were going to White students, in effect monetizing existing racial disparities in AP.

Inducement programs can promote access into AP courses for low-income and racial minority students. However, these programs are limited when they do not provide additional academic support for marginalized students new to AP to promote their success on exams. Schools and districts considering inducement or incentive programs should therefore be careful to routinely evaluate how equitably their apparent benefits apply to participating students. These programs can be expensive, and may disproportionately benefit students who are already well represented in AP.

Accountability policies for AP expansion

Rather than provide district and school level inducements, some states approach AP access reform through the addition of AP course offerings or in combination with accountability indicators. The concept is that a critical mass of AP course offerings would be filled by any and all students capable of taking those courses, resulting in more heterogeneous classrooms by race and income level.¹³⁷

In an attempt to counteract AP expansion inequalities [similar to what occurred in California](#), Pennsylvania's AP reform combined expansion with an accountability indicator that measures college credit-bearing course offerings, called the "Access to Advanced Coursework" (AAC).¹³⁸ Beach and colleagues (2019) examined whether implementation of the AAC indicator was associated with an average increase in AP access over the course of a three year policy intervention. In order to assess equity of the intervention, schools were categorized as being either policy sensitive (having few AP course offerings prior to

¹³⁷ Klugman (2013)

¹³⁸ Beach et al. (2019, p. 8)

implementation) and policy nonsensitive (having a high number of AP offerings prior to implementation). Initial findings showed that AP course offerings did increase across all Pennsylvania schools after implementation, but that after the first year, the number of new courses introduced decreased back to pre-intervention levels.¹³⁹ Prior to the intervention, policy nonsensitive schools added significantly more AP courses per year, on average, than policy sensitive schools. During intervention, the rate of new AP course introduction did not differ between policy sensitive and policy nonsensitive schools, meaning that the gap in AP course offerings between the two school types did not close over the three years, and actually continued to widen.¹⁴⁰ Importantly, demographic data revealed that, on average, policy nonsensitive schools were in suburban areas, and enrolled more White students and fewer socioeconomically disadvantaged students. In contrast, policy sensitive schools were located in metropolitan, urban, or remote (rural) areas, had nearly double average enrollment size, and enrolled higher proportions of socioeconomically disadvantaged students and students of color.¹⁴¹

These findings suggest that accountability indicators may not be sufficient for addressing inequalities in AP access between schools without targeting expansion in communities serving low-income students and students of color. On the surface, these programs show some promise in AP program expansion, but without proper monitoring to ensure that they do not disproportionately benefit students already enrolled in AP they may do little to address the disparities highlighted throughout this literature review. School districts considering AP expansion as a function of accountability should be explicit in where and how they want to see the program expand, accompanied by sufficient resources and professional development for providing academic support to underrepresented students newly participating in AP.

Virtual AP

A newer method for expanding AP access and equity is the use of distance learning to make AP courses available online. This may grow in popularity with the shift to remote learning during the COVID-19 pandemic where students largely finished their AP courses and took their exams online. The use of virtual AP programs to expand access is not well evaluated, but theorized to reduce issues of access by making AP courses open to anyone with an internet connection, potentially reducing racial and socioeconomic enrollment disparities. In addition, some programs are grant funded and specifically allocate funds to waive enrollment and exam fees for virtual AP students to potentially remove financial barriers for students from low-income families.¹⁴² Fenty & Allio (2017) conducted an evaluation of the Virtual Advanced Placement (VAP) program in New York State. They found that while the percentage enrollment in VAP for Black students remained similar to in-person AP enrollment in public schools, White enrollment in VAP was significantly higher, and Latinx enrollment was significantly lower.¹⁴³ Additionally, representation of low-SES students, EL

¹³⁹ Beach et al. (2019)

¹⁴⁰ Ibid (p. 14)

¹⁴¹ Ibid (p. 13)

¹⁴² Fenty & Allio (2017)

¹⁴³ p. 50-51

students, and students with IEPs/504s was significantly lower in VAP than in traditional public schools.

Similar to inducement, volume, and accountability programs, Virtual AP may increase the volume of available courses without functionally creating the same pathways of access for marginalized students. To help address this and maximize the potential benefits of a virtual AP program, schools and districts should work to ensure that their low-SES and racial minority students have equitable access to reliable internet and devices to take these online courses.¹⁴⁴ Additionally, there should be concerted efforts to ensure that students are adequately prepared academically to be successful in AP courses offered online or in school. Central to those efforts is the concept of detracking, as discussed in the following section.

Detracking

Detracking is among the most well-researched reform efforts for countering de facto segregation based on academic performance.¹⁴⁵ We discuss programs that attempt to undo modern tracking in order to provide a pathway for expanding AP and other advanced coursework access for students. We also review benefits and shortfalls of programs meant to increase AP course participation without detracking reform.

Detracking policy

Burris and colleagues (2008) argued that removing the current system of tracking in the public school system will create more equitable educational opportunities for all students, and especially for students from low-income households and students of color. Opponents to detracking argue that the current system cannot be overhauled because: 1) it allows curriculum to be stratified to the needs of students; 2) it provides schools agency over the placement of students; and 3) it prevents low-achieving students from experiencing the frustration of failing in advanced coursework, and from slowing down the learning process of higher achieving classmates.¹⁴⁶ Many studies contradict these assertions by arguing that tracking by ability grouping forms a social hierarchy in schools that tends to be segregated by race,¹⁴⁷ and that classrooms with heterogeneous ability levels do not tend to drag down the performance of “high achievers.”¹⁴⁸

Detracking also allows schools to reconceptualize pedagogy, curriculum, and the alignment of course progression across subjects, as these adjustments are often necessary in order to affect change throughout the school building.¹⁴⁹ This includes the development of techniques for teaching and classroom management that promote relationship building in racially diverse classrooms, continuous attention to and efforts against potential segregation occurring through class enrollments, and a school-wide commitment to

¹⁴⁴ Becker et al. (2020)

¹⁴⁵ Rui (2009)

¹⁴⁶ Klopfenstein (2003)

¹⁴⁷ Oakes et al. (1997)

¹⁴⁸ Alvarez & Meehan (2006); Boaler (2006); Burris et al. (2008)

¹⁴⁹ Domina et al. (2019)

ensuring that every student is challenged academically and set up for success.¹⁵⁰ Burris and Welner (2007) list several factors that are crucial to the success of detracking efforts:

- 1) Stable school leadership, committed to achieving excellence and equity
- 2) Elimination of the lowest academic track to begin the process
- 3) Commitment to a high-track curriculum plus support for struggling learners in heterogeneous classes
- 4) Allowing teachers to transition into heterogeneous classes
- 5) External factors (curriculum and standards, for example) provide opportunity for change
- 6) Steady, determined progress towards a school-wide goal for equitable academic achievement for students
- 7) Collection and dissemination of achievement data with faculty and staff
- 8) Careful hiring and evaluation of faculty and staff in support of school and district-wide detracking efforts

Of great importance in this framework is the connection between school and community. Public education in the United States largely operates under local control, such that the federal government and state departments of education can create guidelines and programs, but cannot mandate school districts to follow those guidelines word for word nor enact any and all programs.¹⁵¹ For example, California and Massachusetts created “algebra-for-all” initiatives in the 1990s to expand advanced coursework, but could not require school districts to follow guidelines for those programs to the letter.¹⁵² Therefore, detracking reforms require schools and school districts to work closely with immediate communities, families, and local politicians to make reforms function properly and to their full potential. This could include advocacy for policies that provide incentives to schools and districts for detracking their students.

Removing gatekeeping mechanisms

As previously discussed in this review, one of the most common ways for disparities in AP enrollment to perpetuate is through gatekeeping practices. This often comes in the form of requiring teacher recommendations¹⁵³ or implementing strict performance standards on standardized tests for enrollment.¹⁵⁴ Although districts provide guidance on what courses are available to students and what criteria might be used for determining qualification for advanced coursework, processes for enrolling students in courses like AP are often determined at the school level. It is therefore important to be mindful of policies that might disincentivize expanding AP enrollment at the school level, such as including AP exam scores in teacher evaluations.¹⁵⁵ Additionally, it is important for schools and districts to evaluate their procedures for ensuring equitable preparation for earlier gatekeeping

¹⁵⁰ Ibid.

¹⁵¹ Burris & Welner (2007); Fuhrman & Elmore (1990)

¹⁵² Domina et al. (2016)

¹⁵³ Lewis & Diamond (2015); Rowland & Shircliffe (2016)

¹⁵⁴ Hallinan (2006)

¹⁵⁵ Rowland & Shircliffe (2016)

courses to AP, like algebra I.¹⁵⁶ These courses are often important for ensuring that students are adequately prepared for the rigors of AP coursework. Thus, school and district efforts towards universal preparation for algebra I by the 8th grade will likely prove beneficial at the high school level for success in advanced coursework like AP.¹⁵⁷ Efforts should also be taken to evaluate any gatekeeper courses for AP that are not actually predictive of student success and remove them as prerequisites.

Examples of detracking in high school

The International Baccalaureate (IB) program at South Side High School, the only high school in Rockville County School District in Long Island, New York was systematically detracked with the goal of reducing the racial gap in receiving a Regents diploma (similar to the advanced diploma in Virginia) by increasing enrollment in IB courses for Black and Latinx students.¹⁵⁸ Over three phases, the county first opened 11th and 12th grade IB English and Math courses to all students, then detracked 9th grade in the second phase, and finally allowed open enrollment for all grades 9-12 in the third phase. Initial findings found that detracking was not only associated with Black and Latinx students being 8.4-times more likely to earn a Regents diploma, but also with White and Asian American students being five times more likely to receive one.¹⁵⁹ More recent analysis of the same program by Atteberry and colleagues (2019) compared how students performed academically prior to tracking to how students performed in a fully detracked IB program. Results showed that the overall achievement of IB exams did not decline as classrooms became more heterogeneous, and that “high-achieving” students performed slightly better on IB Math after detracking was implemented than they did prior to detracking. Post-detracking, the number of students participating in IB math increased, and average IB math exam scores either remained similar or were higher. Likewise, IB English participation increased for all students, with no change in average IB exam score performance.

Recognizing overrepresentation of White students and underrepresentation of students of color in AP classes, Boston Collegiate Charter School recently took steps to diversify the program.¹⁶⁰ School leaders found that students who were in the non-honors track were less likely to attempt AP courses, but that they tended to perform similarly to their peers in the honors track when they did enroll in AP. Based on this data, they worked to detrack their English and math classes, which took multiple years and required onboarding grade levels gradually. Concurrently, school leaders worked with teachers to build enthusiasm for the AP program and encourage students to get excited about enrolling in college level courses, even if they only took one course while in high school. Overall participation of juniors and seniors increased by 17 percentage points from 2015-2018, and disparities in enrollment between White students and students of color reduced from 19 percentage points to 10

¹⁵⁶ VanSciver (2006)

¹⁵⁷ Davis et al. (2019)

¹⁵⁸ Atteberry, et al. (2019); Burris & Welner (2007)

¹⁵⁹ Burris & Welner (2007)

¹⁶⁰ Potter (2019)

percentage points. Additionally, the number of students with IEPs participating in AP increased by 19 percentage points.¹⁶¹

Evanston Township High School is a racially and socioeconomically diverse high school north of Chicago, IL that went through an extensive detracking effort in 2010 after prompting by the district superintendent and school principal.¹⁶² The school detracked courses in English, Biology, and history for the majority of their freshmen and were met with opposition by parents and media outlets expressing concerns about how these efforts might negatively impact the college prospects of top performers in the school. Like many schools across the country, ETHS had designated “honors” courses where enrolled students received the designation regardless of how they performed. Racial and socioeconomic segregation in these courses led to similar segregation in AP courses. This was also due, in part, to strict prerequisites for entering AP, including teacher recommendations. Detracking efforts to ameliorate these issues began with teachers of junior and senior AP courses informing teachers of freshmen year courses about the skills that students would need to be successful as upperclassmen in advanced coursework. Teams of teachers in each subject area then designed a detracked curriculum that emphasized the development of students’ analytical, writing, reasoning, and collaboration skills. Students were able to earn honors credit in these integrated courses by completing assessments and meeting rubric standards determined to be at the level of preparing students for AP. The first cohort of students to matriculate in this new model earned the highest average ACT score in the school’s history and took the most AP courses and earned the most passing grades on AP exams in the school’s history. The following cohort showed a 113% increase in AP enrollment for students who would have normally been placed in standard courses in freshman year under the original tracking model.

Efforts towards integrating AP and IB courses in these three high schools largely exemplified the factors outlined by Burris and Welner (2007) for successful detracking. They were initiated and supported by school leadership with an eye on equity. They frequently eliminated the lowest academic track and provided additional support for newly enrolled students in the more rigorous track. Teachers received support from school leaders and colleagues in higher grade levels to design and implement the detracked curriculum. They pushed for high expectations for academic achievement for all students. Finally, they involved evaluation of and reflection on outcome data to measure progress. School reform efforts often attempt value neutral changes to avoid pushing away communities, but equity-minded reforms, such as detracking, require efforts that persist through hard negotiations over perceived scarce resources and school culture (Oakes et al., 2005). The entire process of detracking in Long Island took a couple of decades to complete largely because of difficult discussions with the surrounding community about the process. Success with detracking can be achieved through persistent effort towards addressing the social, political, and economic concerns of stakeholders and community members.

¹⁶¹ For additional examples of schools and districts that promote detracking and racial integration in advanced coursework, see [Potter’s \(2019\) report for The Century Foundation](#).

¹⁶² Bavis et al. (2015)

Strategies for district-level detracking efforts

Examples like these demonstrate the potential benefits of detracking for expanding and diversifying AP enrollment. Still, what appears to be relatively lacking in the literature are evaluation studies exploring how effective efforts like these are at the district level, perhaps because reforms often do not reach that level in a uniform way. It is therefore important to glean recommendations that might prove effective implementing such a model on a larger scale. The National Association of Secondary School Principals (NASSP; 2006) offers [several recommendations for detracking by ability level](#), including:

- Creating a culture of high expectations for all students through a safe and personalized learning environment
- Providing early intervention for students performing below grade level
- Identifying essential skills to be learned at each grade level to be prepared for future rigorous coursework¹⁶³
- Providing open enrollment for AP, IB, and honors courses and offering tutoring for students in need of additional support to be successful in these courses
- Organizing students in heterogeneous learning groups and involving families at early stages to help prepare for these changes in class structure
- Providing information and education to families about detracking, including the potential benefits it can offer to high performing students
- Providing additional time and support for students who require it to be successful in more rigorous coursework

The literature outlines several other strategies for successful detracking. In heterogeneous ability classrooms, teachers should provide advocacy, support, and encouragement for students to pursue more rigorous or “honors” curricular options rather than only waiting for students to self select.¹⁶⁴ It is also helpful to build a learning community where diverse contributions from students are invited and (relatedly) providing diverse learning opportunities that align with the different cultural backgrounds of students.¹⁶⁵ Rubin (2006) offers several “best practices” in detracking, including active engagement with student, teacher, and parent beliefs about detracking to help build buy-in, ensuring universal access to interesting, challenging, and relevant curricula, soliciting support from the community surrounding the schools to help more students be successful in advanced coursework, providing supplemental academic support (e.g. tutoring) as needed, and ensuring that teachers have the time, professional development, and resources they need to implement differentiated instruction in detracked courses. Although most of these recommendations could be school-level policy decisions, school districts could set similar expectations for detracking and provide necessary support and resources to encourage their success, offering the potential for widespread expansion and diversification of AP.

¹⁶³ This is similar to the strategy used by ETHS where teachers of upper level AP teachers informed teachers of freshman courses of what would be required to be successful

¹⁶⁴ Yonezawa et al. (2002)

¹⁶⁵ Freedman et al. (2005)

Benefits of detracking

The literature offers a myriad of benefits for students in detracked courses. Corresponding efforts to diversify the curriculum and make it more culturally relevant tend to provide students with new and interesting ways of learning course content.¹⁶⁶ Heterogeneous ability courses that prioritize diverse perspectives may also encourage previously unengaged students to become more active participants.¹⁶⁷ Students who would have previously been in lower academic tracks tend to perform better in detracked classes.¹⁶⁸ At the same time, students who were already high achieving tend to continue their academic success in detracked environments.¹⁶⁹ In a 2009 meta-analysis, Rui compared the results of four experimental studies, two quasi-experimental studies, seven observational studies, and two qualitative studies from 1972 to 2006. Comparisons of results across these 15 studies showed that students in detracked classes tended to perform better than their peers with equal ability levels in tracked classes overall. Comparisons of effect sizes showed that average and high-ability students did not perform significantly differently in detracked classes than their peers in tracked classes, but low achieving students tended to perform significantly better in detracked classes. These findings suggested that detracked courses tended to prove beneficial for addressing achievement disparities while not having any significant negative effects on already high achieving students.

In addition to the academic benefits, there are apparent social and emotional benefits of detracking. In a 2008 multiple case study, Rubin conducted observations and interviews in three comprehensive high schools to explore the experiences of students and educators in detracked 9th grade classes. Interview data indicated that teachers found their students to be more collaborative with students from diverse backgrounds in these classes, including in case study schools where the student body was predominantly White or predominantly Black. In a large scale qualitative study at 12 high schools across three urban districts, Yonezawa and Jones (2010) conducted focus groups with over 500 students about their perspectives on tracking and detracking. Not only did students tend to perceive tracking practices to be unfair, they also perceived struggling students to receive less rigorous coursework and engaging teaching in a tracked school environment. Conversely, they perceived detracking to require higher expectations for all students and advocated that a detracked program provided greater equity in access to rigorous coursework (including AP). More rarely, students perceived tracking to be necessary to maintain some level of meritocracy in a school, prompting the author to advocate for detracking as a strategy for encouraging a more collectivistic mindset in students.

There are also demonstrated social and emotional benefits to students being in more diverse classroom environments that often result from detracking.¹⁷⁰ Qualitative research has shown that students of color may feel greater opportunity to be leaders in racially diverse schools when their classrooms are similarly diverse.¹⁷¹ Racially integrated social

¹⁶⁶ Tomlinson et al. (2003)

¹⁶⁷ Rubin and Noguera (2004)

¹⁶⁸ Bavis et al. (2015); Rui (2009)

¹⁶⁹ Atteberry et al. (2019); Lewis & Diamond (2015); Siegel Hawley (2012)

¹⁷⁰ Siegel-Hawley (2012)

¹⁷¹ Modica (2015)

studies classes can serve as “laboratories of democracy” where students get practice engaging in civics discussions with peers from diverse backgrounds.¹⁷² For traditionally underrepresented students, racial integration in AP can promote a greater sense of belonging.¹⁷³ According to a 2019 report from The Century Foundation, racially integrated classrooms tend to promote greater creativity, problem solving, and critical thinking, and can lead to enhanced satisfaction and intellectual self-confidence. Long-term, students matriculating in racially diverse classroom settings are more likely to seek out diverse contexts to live and work as adults.¹⁷⁴

Research suggests that efforts to detrack students not only present opportunities to expand and diversify AP courses, they also come with academic, social, and emotional benefits for students. Although detracking efforts can be politically challenging, these potential benefits within and beyond AP programs could prove transformative for making advanced coursework more equitable. Importantly, efforts such as detracking to expand access to AP are only part of what is needed for a successfully integrated program. In the following section, we review recommendations from the literature on recruiting and supporting underrepresented students in AP programs.

Equitably Recruiting and Supporting Students in AP Programs

Taken together, the previous sections demonstrate the importance of targeted AP program expansion for underrepresented students and promoting more equitable preparedness for AP through detracking policies and practices. Once enrolled, the literature consistently recommends two mechanisms for promoting the success of all students in AP: maintaining high expectations for student achievement and offering sufficient resources for students in need of additional academic support. A prominent strategy for accomplishing this is the active recruitment of underrepresented students into the AP program.

AP recruitment focused on underrepresented students is the antithesis of gatekeeping, yet AP teachers often do not see this as a fundamental aspect of their job.¹⁷⁵ Still, the literature outlines several recommendations for expanding and diversifying AP through recruitment efforts. Like many efforts to promote more equitable outcomes in the classroom, successful recruitment of underrepresented students into AP programs requires pre-service training and ongoing professional development in cultural competency.¹⁷⁶ School efforts to determine students who might be a good fit for AP should consider multiple criteria rather than relying solely on standardized test score data, and should make concerted efforts to reach out to families of underrepresented students to advocate for their enrollment in AP.¹⁷⁷ Student outreach and recruitment should start in middle school, so there is early awareness about the availability and potential benefits of the AP program.¹⁷⁸ Ford and Whiting (2011) emphasized the need to be mindful of social and

¹⁷² Rubin (2012, p. 62)

¹⁷³ Bjorklund (2019); Gray (2017)

¹⁷⁴ Siegel-Hawley (2012)

¹⁷⁵ Burton et al. (2002)

¹⁷⁶ Whiting & Ford (2009)

¹⁷⁷ Flores & Gomez (2011); Ford (1998)

¹⁷⁸ Burton et al. (2002)

psychological factors that may inform racial minority students' decisions to enroll in accelerated coursework, including how it is informed by their racial identity and peer relationships. The authors also advocated the need to offer particular outreach to Black male students, who tend to be the most underrepresented demographic group in gifted programs and the most overrepresented in exclusionary school discipline.

In addition to recruitment efforts, it is critical for schools to provide sufficient support to newly enrolled AP students to help them be successful in the program. This may require maintaining smaller class sizes to offer more individualized help for students who need it.¹⁷⁹ This also requires ongoing outreach to students and their families about the potential college benefits of AP, and for AP teachers to maintain high expectations for all of their enrolled students.¹⁸⁰ As an example of this, Judson and colleagues (2019) surveyed AP teachers in Title I and non-Title I schools and found that those in Title I settings were more likely to require their students to take AP exams and used twice the amount of strategies to convince their students to take exams. Similarly, Burton and colleagues found in their focus groups with AP teachers that their strategies for successfully supporting racial minority students in AP included maintaining high standards for all students, providing lots of examples and using frequent check ins (e.g. quizzes) to ensure understanding, offering group projects when possible, and maintaining enthusiasm for the subject area. The teachers also reported that they did not always have the time, resources, or administrative support required to offer students what they needed to be successful in a diversified AP program. In a related study, Hertberg-Davis and Callahan (2008) interviewed 200 racially and socioeconomically diverse students across 23 high schools to get their perspectives on AP. They found that while racial minority students frequently perceived the program to be beneficial to their postsecondary goals, they often did not find the curriculum to be particularly relevant to their interests. The authors recommended providing ongoing training to AP teachers on differentiated instruction during school and district wide efforts to expand and diversify the program while making equity a central focus in the design and implementation of the AP curriculum.

Exemplifying key recommendations from the literature about recruiting and supporting underrepresented students in AP, Flores and Gomez (2011) conducted a mixed-method evaluation of efforts to expand access to the AP program at Fontana High School in California. School and district leaders recognized that while Latinx students made up 90% of the population in the school, they did not have proportionate enrollment in the AP program at the school. They also found that their students who did enroll in AP tended to gain better confidence in their abilities to do college level work, even when they did not pass the AP exam. They employed multiple strategies for recruiting students into AP and providing them sufficient support to be successful once enrolled, including concerted outreach to students from underrepresented groups, detracking freshman year English and social studies courses, requiring AP teachers to also teach standard level classes, prioritizing writing instruction in earlier grades, and enforcing a “no drop” policy where only the principal had the authority to drop a student from AP once enrolled. The school established shared goals for the AP program and conducted an annual evaluation of the program to measure progress towards those goals. Finally, they routinely solicited input

¹⁷⁹ Flores & Gomez (2011)

¹⁸⁰ Burton et al. (2002)

from teachers, parents, and students on their perceptions of the AP program and conducted ongoing outreach to students' families about the expectation that "enrolling in AP classes is the expected norm at Fontana and is not reserved for top performing students only."¹⁸¹ Two years after implementation of these initiatives, there was a 43% increase in the number of AP exams taken by students.

How to Make AP Programs More Equitable

In this section, we reviewed prominent policies and practices intended to promote more equitable access and support for success in AP courses. In the following section, we combine these takeaways with key findings from the literature to offer itemized conclusions and recommendations.

¹⁸¹ p. 71

CONCLUSIONS AND RECOMMENDATIONS

Making AP more accessible and supportive for all students who want to pursue college requires a multifaceted approach. In this section, we offer pertinent conclusions from our literature review as well as corresponding recommendations for policy and practice. We conclude with recommendations for the College Board and alternatives to AP.

Conclusions and Recommendations for Policy

Conclusion. *Fee waivers for exams have proven effective in promoting higher enrollment of low-income students in AP classes,¹⁸² but Virginia does not currently provide funding toward reducing AP exam fees.¹⁸³*

Recommendation. The state should consider allocating funds towards waiving or reducing AP fees for demonstrated financial need (or all students if possible). This could be combined with the potential \$33 fee reduction from the College Board for those who qualify to eliminate financial cost as a barrier to low-income students.

Conclusion. *Many schools that lack AP courses primarily serve students of color and socioeconomically disadvantaged students.¹⁸⁴*

Recommendation. Districts should require all high schools to offer a minimum number of AP courses and provide necessary supports for schools and students. Districts should also fill funding needs related to equipment, curriculum materials, and number of staff members within schools that increase both availability of learning opportunities and support, rather than solely providing inducements and incentives that may benefit only a few teachers or students, and may not target the right population.

Conclusion. *Tracking in elementary school (gifted and talented) and middle school (advanced math) tend to increase disparities in advanced coursework access in high school.¹⁸⁵ The result is increased advantages for White and higher-SES students, while the disadvantages for students of color and low-SES students continue to grow.¹⁸⁶*

Recommendation. Schools and districts should consider detracking in elementary and middle school in order to help students be more successful in accelerated coursework opportunities in high school. This includes adopting a talent development approach to gifted education and algebra I for all in middle school, along with sufficient support to ensure that students are able to successfully navigate an accelerated math pathway. At the high school level, they should consider detracking classes starting in freshman year to help more students engage in coursework that will sufficiently prepare them for success in AP.¹⁸⁷

¹⁸² Jeong (2009)

¹⁸³ AP exam fee assistance (College Board)

¹⁸⁴ Ibid.

¹⁸⁵ Grissom et al. (2017)

¹⁸⁶ Conger et al. (2009)

¹⁸⁷ Burris & Welner (2007)

Conclusion. *Effective detracking policies that diversify AP courses are explicitly targeted, aggressive, prolonged, and evidence-based.*¹⁸⁸

Recommendation. Schools and districts should be committed to removing the lowest track from their offerings and subsequently collecting meaningful performance data over a prolonged period of time that creates a picture for what adjustments need to be made. Reporting participation and success rates in heterogeneous ability courses offered for all groups of students at the school level can allow for differentiated assessment of any disparities that can be addressed with further adjustments.¹⁸⁹ Transparency provided by this data collection will also allow community members and policymakers to understand the full picture and potentially provide greater support for future shifts in policy.

Conclusion. *Resistance to detracking and AP program expansion often comes from stakeholder groups who already disproportionately benefit from advanced coursework opportunities in schools*¹⁹⁰ (e.g. White and higher SES parents).¹⁹¹

Recommendation. Efforts to detrack and expand access to AP classes may prove challenging, but research suggests that they are also potentially fruitful for producing more equitable achievement outcomes for students. School and district leaders should be prepared for potential pushback and offer research evidence of the tendency for White and high-SES students to benefit from integrated learning environments and for high achieving students to maintain their academic success in heterogeneous ability classrooms.¹⁹²

Conclusion. *Because so much decision making around providing advanced courses like AP occurs at the school and district level, state policies to promote equity or detracking are not always followed.*

Recommendation. State legislatures and departments of education should consider providing incentives for schools to follow policies promoting detracking that ultimately diversify programs like AP. For example, The National Education Policy Center offers a [Schools of Opportunity](#) award for schools that successfully detrack courses and provide more equitable opportunities for their students. To date, this incentive program has recognized 52 schools across the country.

Conclusion. *Inducement policies for AP often either benefit overrepresented student groups or they have the adverse effect of disincentivizing teachers from including underrepresented students in AP classes out of concern that they may not perform well.*¹⁹³

Recommendation. If used, inducement policies should include routine data collection and evaluation of whether they are reducing racial and socioeconomic disparities in AP programs. If not, they should be discontinued.

¹⁸⁸ Beach et al. (2019); Klugman (2013)

¹⁸⁹ Theokas & Saaris (2013)

¹⁹⁰ Lewis & Diamond (2015)

¹⁹¹ Two podcast examples of how this occurs: “The Problem We All Live With” (an episode of *This American Life*, and “Nice White Parents,” a podcast series by *The New York Times* and *Serial*.

¹⁹² Atteberry et al. (2019); Lewis & Diamond (2015); Siegel Hawley (2012)

¹⁹³ Jackson (2010)

Conclusions and Recommendations for Practice

Conclusion. *AP courses were established by Ivy League colleges seeking to help historically high achieving students further accelerate their learning in preparation for postsecondary education.¹⁹⁴ This is incongruent with the articulated purpose of the modern AP program to help all students prepare for college level work.*

Recommendation. Any efforts to promote greater equity in AP must recognize the elitist foundation of the program and how those roots tend to perpetuate through practices like *opportunity hoarding* and *gatekeeping* that often keep racial and ethnic minority students and low-income students out of the program. This may require a mindset shift by some educators about who the AP program is for, acknowledging the need for accessibility to all students who want to pursue college level coursework in high school.

Conclusion. *Research shows that low-income and racial minority parents are more likely to take school recommendations for the course placement of their children at face value, and that they are not always readily informed by their schools about advanced coursework opportunities like AP.*

Recommendation. Schools should make concerted efforts towards family outreach to provide sufficient information about AP, including its potential benefits for college preparation and cost savings in comparison to college tuition. Increased outreach efforts may concurrently require professional development addressing some misperceptions about parental involvement from racial and ethnic minority or low-income communities. When schools maintain a goal of actively including the students and parents from underrepresented groups in enrollment decisions about AP, it can demystify those processes and support expansion and diversification of the AP program.

Conclusion. *There are several demonstrated social, emotional, and civic benefits¹⁹⁵ associated with being in racially and socioeconomically integrated classrooms, including reduced biases, meaningful relationships with diverse peers, and enhanced leadership skills.¹⁹⁶*

Recommendation. AP expansion and diversification represents an opportunity to benefit over- and underrepresented students alike. Schools and districts should keep these benefits in mind alongside the academic benefits of AP when seeking to expand access to the program. One potential barrier to this is the *lack of belonging* expressed by students of color in their AP classes. While diversifying AP courses should help to ameliorate some of these concerns, AP teachers should make concerted efforts towards helping newly enrolled students feel welcomed, heard, and respected in their classes.

Conclusion. *Gatekeeping practices (often in the form of test score benchmarks or teacher recommendations) contribute to underrepresentation of low-income students and students of color.*

Recommendation. Schools should actively evaluate the processes they use to enroll students in AP. This should include a quantitative comparison of enrollment practices in

¹⁹⁴ Rothschild (1999)

¹⁹⁵ Rubin (2007)

¹⁹⁶ Wells et al. (2019)

relation to corresponding student representation in AP classes as well as qualitative input from students, parents, and teachers about the perceived impact of these practices. Any gatekeeping mechanisms that function to keep low-income and racial minority students out of AP who could potentially be successful in the program should be scrutinized and removed, including any prerequisite courses that are not actually predictive of success in AP courses (unlike algebra I).¹⁹⁷

Conclusion. *Research shows that in schools where educators believe all students can succeed and provide differentiated instruction, AP programs tend to be the most effective in promoting the success of underrepresented student groups.*¹⁹⁸

Recommendation. Schools should work to build and maintain a culture where faculty and staff alike have high expectations for all learners, manifested through active efforts to prepare students for success in rigorous courses like AP. While these efforts should be targeted in schools with high enrollment of low-income and racial minority students (often urban and rural) that tend to have lower access to AP, they should also include racially and socioeconomically diverse (often suburban) schools where there are higher numbers of AP courses available but often persistent disparities in who take them. Investments should be made in rigorous curricula, course materials, anti-bias training, and highly qualified teachers to ensure that schools can feasibly support expanding their AP programs and offering sufficient supports to newly enrolled students.¹⁹⁹

Recommendations for the College Board

The College Board has made efforts towards creating greater equity in their AP program, including putting out an [annual AP report to the nation](#) that provides updates on program expansion disaggregated by student race and SES offered at the state and national level. Furthermore, they provide [research](#) and [resources](#) for working with diverse learners in AP classes. Much of the data and information provided by the College Board proved valuable in the writing of this literature review. Still, based on key findings from the literature and our assessment of current efforts by the College Board to promote equity in AP, some recommendations emerged.

Proclamations by the College Board about gains in AP equity are often grounded in overall expansion of the program (which brings in massive annual revenues).²⁰⁰ However, while gains in underrepresented student subgroup enrollment are encouraging, the lingering racial and socioeconomic disparities present an enduring concern about how much efforts by the College Board are grounded in a desire for ensuring that more students are taking AP rather than a specific vested interest in ensuring that low-income and racial minority students are making gains relative to White, Asian, and higher-income students who have traditionally been well represented. For example, the [AP program results from the class of 2019](#) show that there was a massive increase (88%) in Black graduates passing their AP exam over a 10 year period. While these numbers are heartening, they may be more

¹⁹⁷ Stoelinga & Lynn (2013)

¹⁹⁸ Kolluri (2018)

¹⁹⁹ Cisneros, et al. (2014)

²⁰⁰ Tugend (2017)

emblematic of increasing popularity of (and subsequent enrollment in) AP. Our analyses of these same data in [Table 5](#) show that Black students represented only 3.7% of graduates passing an AP exam in 2009 and still only 4.34% in 2019, leaving them still drastically underrepresented in this metric compared to their overall share of graduates that year. It is important for the College Board to offer more context like this in their presentation of apparent gains in AP program equity to enhance the validity of the findings that they report each year.

At the same time, the College Board should be more explicit about efforts to not only expand and diversify AP program involvement, but also to make the AP curriculum more culturally relevant to match the interests and needs of newly enrolled students. [Public information about curriculum and exam development](#) includes details about committees made up of university faculty and AP teachers from across the country, but nothing about efforts to ensure that those committees are demographically representative of the US student population who will ultimately have access to taking the courses and exams that they design. Similarly, [public information about AP course and exam redesign efforts](#) highlights renewed emphasis on building research and inquiry skills and enhancing conceptual understanding of the content area (as it should), but offers no guidance on developing a curriculum or approach to assessment that prioritizes the growing diversity of students taking AP courses. This presents a potential systematic misalignment between the structure of AP and the articulated efforts by the College Board to make the program more equitable. Efforts to redesign existing AP content and develop new AP courses should center equity as one of its guiding principles and set expectations for proportional demographic representation on the committees tasked with overseeing these efforts.

Given the currently entrenched status of the AP program as the paramount way that US students engage in college preparatory work in high school, the College Board is positioned to take meaningful and dynamic steps towards making this program more equitable. As stated in the most recent [AP Report to the Nation](#), “All students who are academically ready for the rigor of AP —no matter their location, background, or socioeconomic status —have the right to fulfill that potential.”²⁰¹ As the backbone organization for AP for more than half a century, the College Board is uniquely situated to offer principled advocacy and take urgent action towards similarly fulfilling its own potential.

²⁰¹ p. 28

Alternatives to Advanced Placement

Advanced Placement courses (and by extension the College Board) have a massive presence in advanced course opportunities in high school and therefore an outsized influence on the college admissions advantages that they afford. Considering the [history of the program](#) and enduring struggles with promoting equitable access and outcomes for underrepresented student groups, it is worth asking why schools continue to prioritize AP as much as they do. As previously discussed, there are other ways for students to matriculate in college level coursework and earn college credit while in high school.

The International Baccalaureate (IB) program is one such alternative, although IB courses are often only made available to select numbers of students and have their own demonstrated racial, ethnic, and socioeconomic disparities.²⁰² Still, efforts to make the IB program open admission have proven beneficial for traditionally underserved students.²⁰³ Dual enrollment courses typically involve partnerships between K12 school systems and local community colleges or universities, offering more flexibility in course design and methods of providing equitable access to interested students. Research suggests that these programs can significantly boost college admission²⁰⁴ and graduation outcomes for low-income students.²⁰⁵ Dual enrollment is also associated with significant benefits in college retention and GPA for participating racial and ethnic minority students.²⁰⁶ There are also innovative programs like the [National Education Equity Lab](#), which partners with prominent universities like Howard, Arizona State, and Yale to provide college credit bearing classes to high school students at no cost, such as the “[Poetry in America: The City from Whitman to Hip-Hop](#)” course at Harvard.

With millions of students taking Advanced Placement courses and exams each year, it is a worthwhile effort to work to make the program more equitable. At the same time, schools and districts should give careful consideration to alternative course options that provide access to college level work and credit while perhaps better serving the needs of all learners with postsecondary ambitions.

²⁰² Perna et al. (2015)

²⁰³ Mayer (2008)

²⁰⁴ Hughes et al. (2012)

²⁰⁵ An (2013)

²⁰⁶ Allen et al. (2012)

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