

5 QUESTIONS

TO ASK DISTRICT AND SCHOOL LEADERS ABOUT ACCESS TO ADVANCED STEM COURSEWORK IN HIGH SCHOOL

ALTHOUGH MANY BLACK AND LATINO STUDENTS ASPIRE TO GO TO COLLEGE AND ARE INTERESTED IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH (STEM) SUBJECTS, very few are actually enrolled in Advanced Placement (AP) STEM courses that would prepare them for college and a career in STEM. When Black and Latino students are given advanced opportunities, they thrive alongside their [peers](#). But in a report, [Shut Out: Why Black and Latino Students Are Under-Enrolled in AP STEM Courses](#), The Education Trust and Equal Opportunity Schools (EOS) found that only a fraction of eligible students is enrolled in AP Biology. However, only a fraction of eligible students is enrolled in AP Biology, Chemistry, and Physics courses, which means that most Black and Latino students are being denied vital learning opportunities that can set them up for success in college and careers.

Ed Trust's research confirms what EOS finds in their partner schools across the country: that educator bias and mindsets often limit which students get access to advanced STEM coursework. As a result, Black and Latino students are being sent a harmful message that advanced courses are not for them — or worse, that they are not smart enough to participate. It's a dangerous perception that fuels the persistent opportunity gaps that exist in schools across the country.

[Access to empowering, rigorous content](#) — including advanced coursework — is one of the [dimensions of resource equity](#) that can unlock opportunities for students. Students who take [college-level courses in high school](#) — whether AP, International Baccalaureate (IB), or dual-enrollment — are more likely to graduate, go onto college, and earn a degree. And increasing the number of students of color in STEM careers starts by giving young people the opportunity to engage in rigorous STEM courses in K-12 classrooms.

A focus on advanced coursework may seem at odds with the work needed to address unfinished learning due to the pandemic, which has had a [devastating impact](#) on students' academic growth and social-emotional development. However, we believe it is equally important to focus on the many students who are eager for advanced coursework, so they can gain greater opportunity to be college and career ready. In fact, EOS and Ed Trust posit that equitable academic acceleration is a plausible and impactful strategy to navigate post-pandemic education realities.

Local school boards, district leaders, and school leaders have the power to implement policies and practices that can enable or inhibit access to advanced coursework for Black and Latino students, which is essential for increasing the number of people of color in STEM careers. Here are five key questions that students, families, community members, and advocates can ask their district and school leaders to make sure they are creating equitable opportunities for Black and Latino students to engage and succeed in advanced STEM coursework:

1

What are your goals for increasing access for Black and Latino students in advanced STEM courses, and what data do you collect and report to monitor progress towards those goals?

LOOK FOR:

- Explicit, ambitious goals across schools and districts for improving access to and success in advanced coursework for Black and Latino students
- Regular, public reports with detailed, disaggregated data around the number of seats in advanced courses, enrollment, and success across elementary, middle, and high school. For instance, the EOS Opportunity Chart allows schools and districts to see and report disaggregated course enrollments relative to the demographics of their school population to see where gaps exist
- Clear information on various advanced course availability across schools. To start, schools can [conduct an audit of courses](#) to identify gaps in the types of course offerings that would be needed to set students up for success in college and career, such as Algebra I in eighth grade

BEWARE OF:

- A focus on enrollment without a goal of student experience and success. EOS' work with partner schools shows that students need support and high-quality teaching to ensure they are not simply enrolled, but successful, and feel as though they belong in advanced STEM courses
- Data on AP enrollment only. Districts can and should collect data on other high-quality advanced coursework opportunities, such as Advanced International Certificate of Education (AICE), IB, dual enrollment or early college, and gifted and talented, to understand equity gaps that may exist



2

How do you identify, recruit, and enroll students in advanced coursework?

LOOK FOR:

- The opportunity to engage multiple measures to identify students for advanced coursework opportunities. This may include using tools like the [EOS Student Insight Card](#), which includes data about students' interests and aspirations — such as expressed desire to enroll, student motivation, and recommendations from trusted school staff — to ensure that this data is factored into making decisions about academic opportunity and enrollment
- Automatic enrollment policies with an opt-out option, so students identified through any measure can be enrolled without having to opt in
- Opportunities to deploy trusted staff who have existing relationships with students. The *Shut Out* report shows that educators of color are more likely to refer students of color for advanced courses, so district and school leaders should invest in preparing, recruiting, and supporting teachers and school counselors of color. For instance, EOS data reports allow schools to see lists of teachers interested in teaching advanced courses and cross reference that with student identified trusted adults.

BEWARE OF:

- Existing costs that may be a burden to students and families, such as exam fees, transportation, books, and other required materials for advanced coursework. In states that do not cover exam fees, districts and schools can allocate funding to reduce the price so that students from low-income backgrounds are not kept out
- Schools that rely on one measure only, such as teacher recommendation or one test score, to determine eligibility. To ensure Black and Latino students are fairly identified for advanced coursework opportunities, district and school leaders can provide ongoing professional learning opportunities for school staff to recognize and shift mindsets that may be rooted in bias, such as perceptions that students of color would not be interested in advanced courses or are not qualified

To dig deeper, see the [Alliance for Equity guidebook on Empowering, Rigorous Content](#), which helps district and school leaders determine barriers in their school district, explore potential actions, and plan next steps.

The Alliance for Resource Equity is a partnership between Education Resource Strategies (ERS) and The Education Trust.

3

How do you regularly communicate with students and families about the benefits of and opportunities in advanced coursework, including how to be successful in advanced courses?

LOOK FOR:

- School and district-wide emphases on information-sharing cultures to assist all students in their journey of preparing for and succeeding in college or career. This may include information shared with families in their home language about advanced coursework opportunities and requirements, the benefits of enrolling in these courses, the process to enroll, and aligned college and career pathways
- Postsecondary planning — starting before high school — to help students explore the full range of their college and career options, and to help them set goals and plan coursework and experiences that align with their future goals

BEWARE OF:

- Information shared only in one format or at a single event, which may fail to accommodate parents' schedules or communication preferences (email, texts, webinars, etc.)
- Information only shared in English, rather than information provided to families in their home languages



4

What training do you provide for teachers to ensure they are well-prepared to teach advanced courses?

To see if your state prioritizes professional development for educators to develop a combination of skills and mindsets needed to equitably support students, see The Education Trust's [50-state scan: "Is Your State Prioritizing Students' Social, Emotional, and Academic Development?"](#)

LOOK FOR:

- Culturally relevant instructional practices, such as creating opportunities to draw on and incorporate students' cultural backgrounds and lived experiences in STEM classes
- Mentoring and teacher collaboration to ensure more teachers have the capacity and confidence to teach advanced coursework, especially in schools that serve large concentrations of students of color and students from low-income backgrounds
- Financial incentives — such as salary increases, stipends, and/or benefits such as tuition reimbursements — to attract qualified teachers in high-need subject areas and encourage teachers to seek needed credentials for specific courses

BEWARE OF:

- A teaching staff that does not represent the makeup of the student body. Students are [less likely to be](#) in STEM courses when they do not see themselves reflected in those leading STEM courses or STEM fields
- Professional development for educators that does not set high expectations for all students, and/or is not available or targeted to schools that serve many students of color



5

How will you ensure advanced courses have a safe, equitable, and positive learning environment for all students?

LOOK FOR:

- Districts and schools that are engaged with families and are building a sense of belonging. To strengthen community, district leaders can survey students and families to understand their interests, aspirations, and experiences with school, especially related to STEM. See, for example, EOS' [survey](#) to understand student belonging
- Support for students who may need additional time to build skills for AP courses, such as expanded learning time programs (summer school, after-school, winter session) or [targeted intensive tutoring](#)
- The use of reliable climate and voice surveys, such as these free surveys available from the [National Center on Safe Supportive Learning Environments](#), to determine areas of improvement

BEWARE OF:

- Curriculum and pedagogy that does not reflect the identities and experiences of students of color and/or students from low-income backgrounds. When students see themselves reflected in the curriculum and in other students in the class, students are more likely to feel welcome in AP courses
- Messaging to students that “you belong” without working to adjust classroom practices, policies, or values to create a culture where all students have opportunities to belong

Special thanks to the Amgen Foundation for providing support for this project.

ABOUT THE EDUCATION TRUST

The Education Trust is committed to advancing policies and practices to dismantle the racial and economic barriers embedded in the American education system. Through our research and advocacy, Ed Trust improves equity in education from preschool through college, engages diverse communities dedicated to education equity and justice and increases political and public will to build an education system where students will thrive.

ABOUT EQUAL OPPORTUNITY SCHOOLS

Equal Opportunity Schools strengthens educator and system leader capacity to break down barriers to increase access, belonging, and success in academically rigorous secondary school courses for students of color and low-income students. EOS partners with districts and schools of all sizes in 29 states across the country. EOS provides one-of-a-kind data analytics, professional learning and tools to support schools to better serve students of color and low-income students and improve the accessibility of advanced learning classes. Our flagship tool, the Student Insight Card, transforms the definition of readiness schools use to determine access to advanced courses and ensures more students enroll, belong and succeed.