



EPAS: A System that Works

Four years after passage of the No Child Left Behind Act (NCLB), most schools are struggling to meet its requirements. Educators, administrators, and policymakers alike are seeking effective solutions to increase achievement levels while closing achievement gaps. At the same time, a growing number of policymakers are calling for a major overhaul of U.S. high schools.

As a nation, we are also facing challenges competing in a global economy. According to a recent report, while future American economic growth rests in part on the educational opportunities available to the current generation of youth, American elementary schools and high school students routinely fall somewhere in the middle on international assessments of academic proficiency (Committee for Economic Development, 2005).

About three-quarters of high school students enroll in postsecondary education within two years of graduation. Yet only 56 percent of ACT-tested 2005 high school graduates take the college-preparatory core curriculum in high school (ACT, 2005a). Even among those taking a core curriculum, only about 75 percent are ready for college English Composition, while fewer than 50 percent are ready for college Algebra, fewer than 55 percent are ready for college social sciences courses, and fewer than 35 percent are ready for college Biology.

The problems are clear and well documented. The time has come for solutions. ACT data strongly support the need for an integrated, longitudinal data-driven system to provide order and continuity to school, district, and state efforts. All students must have systematic guidance and feedback—early and often. Our high schools must provide rigorous college-preparatory courses that are aligned with both state standards and college entrance expectations, and more students must take these core courses.

ACT's Educational Planning and Assessment System (EPAS[®]) is designed to guide and support schools, districts, and states in their efforts to improve students' readiness for life after high school. EPAS provides a longitudinal approach to educational and career planning, assessment, instructional support, and evaluation. EPAS components are coordinated in a unified, comprehensive system for measuring and monitoring student achievement over time. EPAS results, which are reported on a single score scale, are designed to inform students, parents, teachers, counselors, administrators, and policymakers about students' strengths and weaknesses. Moreover, this information is provided prior to and during students' high school experience, while there is still time to address these strengths and weaknesses.

EPAS consists of EXPLORE[®] (for eighth- and ninth-graders), PLAN[®] (for tenth- and eleventh-graders), and the ACT[®] (for eleventh- and twelfth-graders). Each is designed to help students plan for further education and explore career options based on their own skills, interests, and aspirations. EPAS gives high schools and districts a way to get students engaged in planning their own

futures. When students know what colleges expect, in terms they can understand, students can use their own information to help make a smooth transition to postsecondary education or training.

All three components of EPAS measure achievement because each is firmly based in the curriculum of the grade level for which it is intended. Every 3 to 4 years, ACT conducts its National Curriculum Survey[®], in which we ask more than 20,000 educators nationwide in grades 7–14 to identify the knowledge and skills that are important for students to know to be ready for college-level work. We examine the objectives for instruction in grades 7 through 12 for all states that have published such objectives. We also review textbooks on state-approved lists for courses at these grade levels. We then analyze the information to refine the scope and sequence for each section of each EPAS component. In this way, EPAS represents a consensus among educators and curriculum experts about what is important for students to know and be able to do.

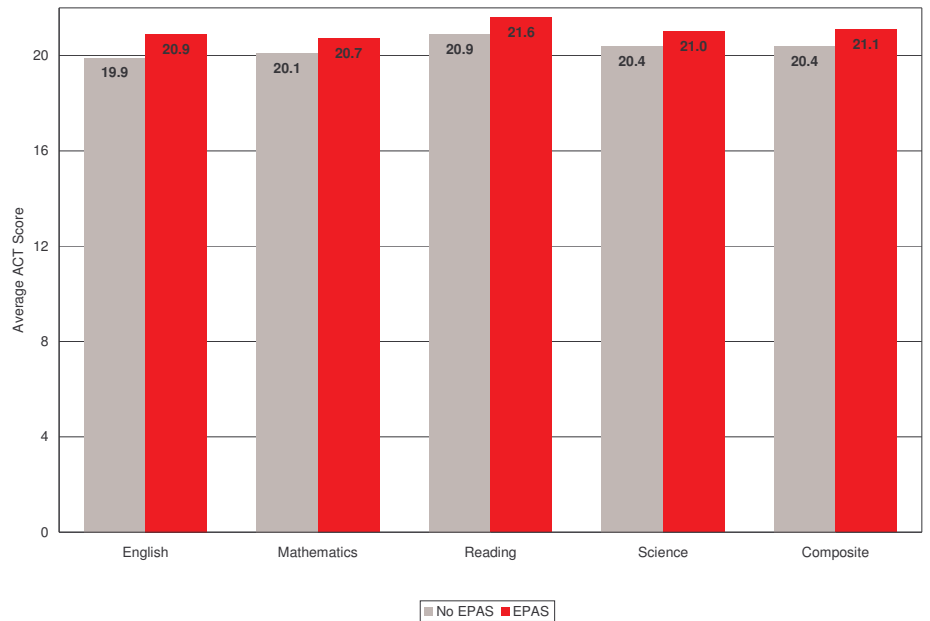
Benefits of EPAS

ACT's research has shown repeatedly that students benefit from participating in EPAS in the following ways:

1. Using EPAS increases educational achievement.
2. Students from schools using EPAS take more college preparatory courses in high school.
3. Using EPAS increases students' college readiness.
4. Using EPAS promotes educational and career planning.
5. Using EPAS promotes college readiness of underrepresented minority students.
6. Using EPAS promotes educational achievement in college, college enrollment, and persistence in college.

1. Using EPAS increases educational achievement.

- **Students who attend schools that use EPAS for educational planning and guidance are more likely to attain higher scores on PLAN and the ACT than students attending schools that do not use EPAS.**
 - Students who participate in all three EPAS programs score 0.6 to 1 score point higher on the ACT subject tests, and 0.7 point higher on the ACT Composite, than students who do not participate in all three programs, regardless of the high school they attend.



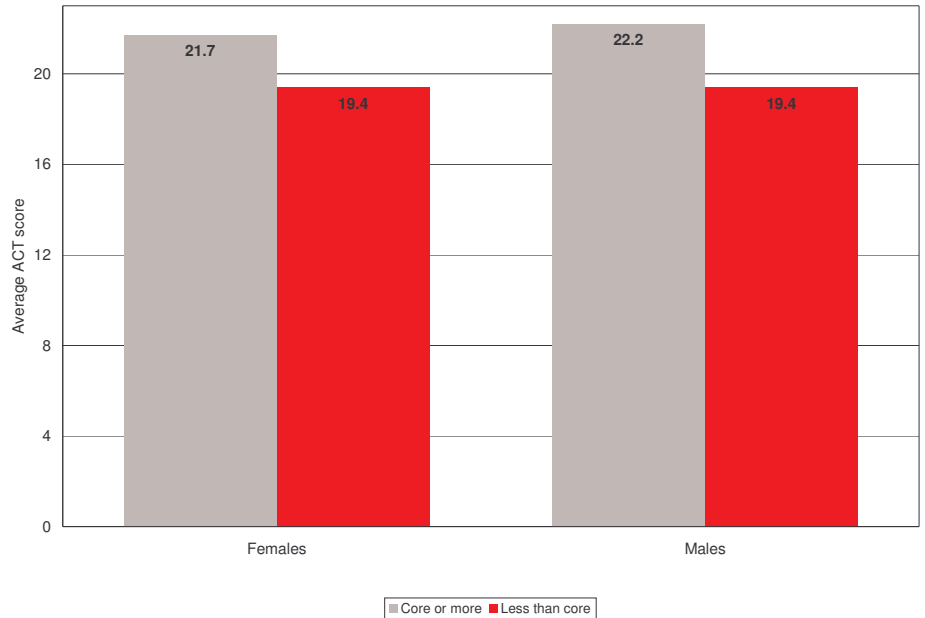
Average ACT scores for students who do and do not participate in EPAS

- **Schools that use PLAN are more likely to achieve larger gains over time in average ACT scores than schools that do not use PLAN.**
 - Over time, schools that use PLAN typically increase their average ACT Composite scores 0.2 to 0.3 score points *more* than schools not using PLAN.
 - Over time, schools using PLAN typically increase their average ACT Mathematics scores 0.6 score points *more* than schools not using PLAN.

2. **Students from schools using EPAS take more college preparatory courses in high school.**

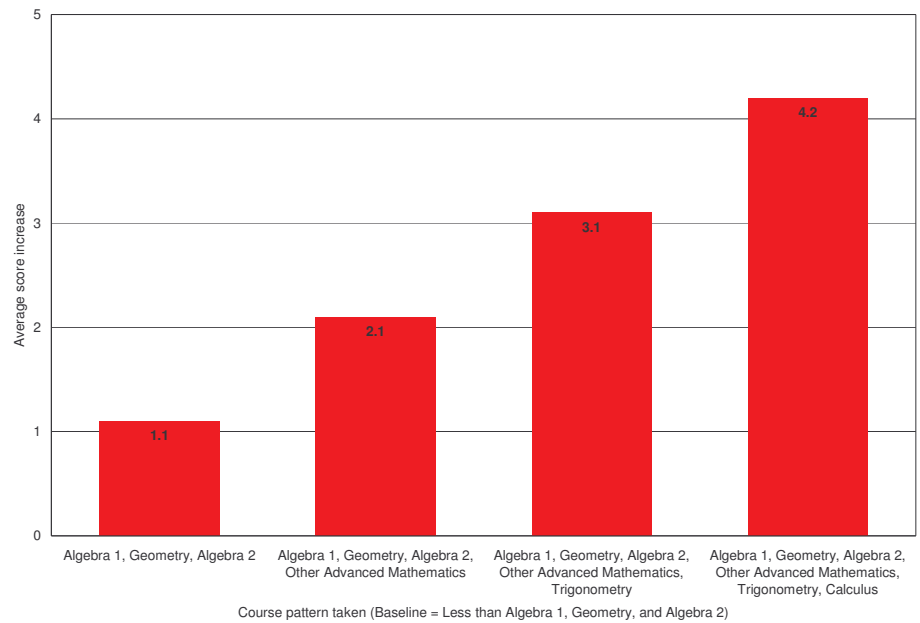
- **Students who participate in EPAS are more likely to take the core curriculum and thus are more likely to be ready for college-level work.**
 - Students increase their odds of taking a college-preparatory core curriculum in high school by 31 percent if they have participated in EXPLORE and PLAN, regardless of the high school they attend.
- **Students who use EXPLORE and PLAN information in educational planning are more likely to take more upper-level coursework in high school, particularly in mathematics and science.**
 - Students increase their odds of taking mathematics courses beyond Algebra I, Geometry, and Algebra II by 28 percent if they have participated in EXPLORE and PLAN, regardless of the high school they attend.
 - Students increase their odds of taking Chemistry and Physics by 27 percent if they have participated in EXPLORE and PLAN, regardless of the high school they attend.
- **Both male and female students who take the core curriculum in high school attain higher scores on the ACT than those who do not.**

- The average ACT Composite scores of male and female students who take the core curriculum are about 2.5 points higher than those of similar students who take less than the core.

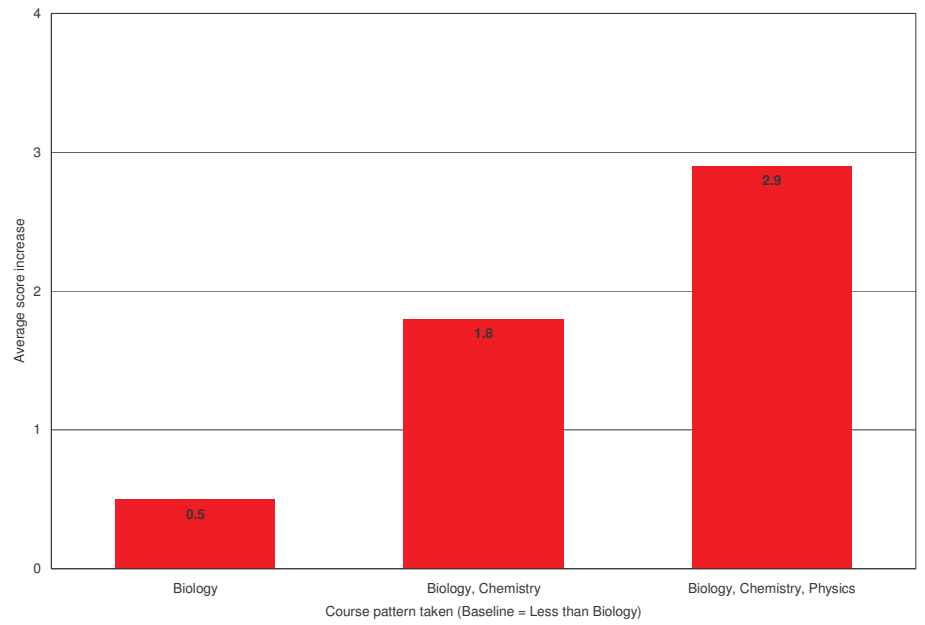


Average ACT scores earned by females and males who do and do not take the core curriculum

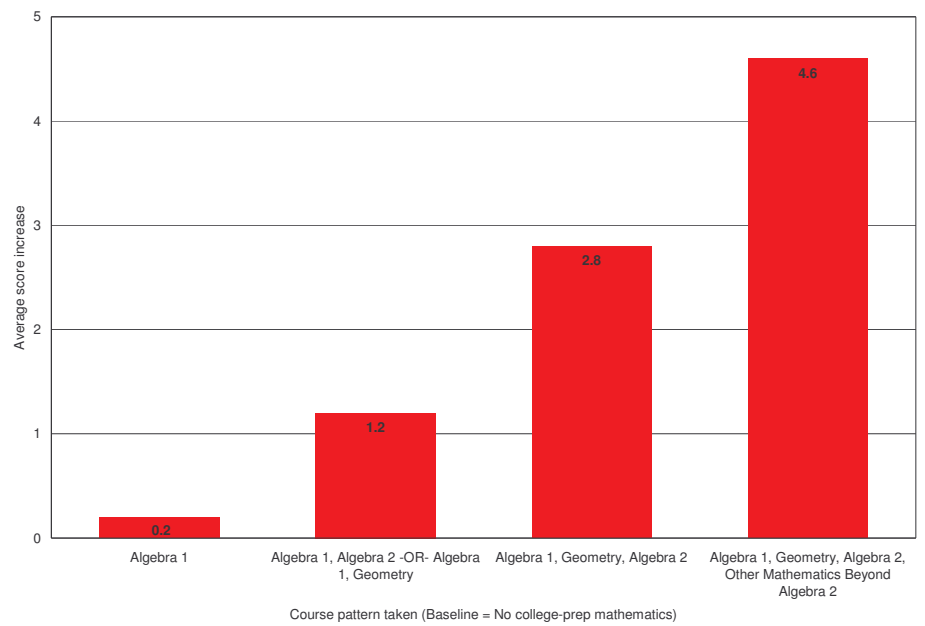
All students benefit from taking upper-level high school courses and working hard in them, regardless of their level of prior achievement. As students take more upper-level courses in high school, the increases in their proficiency are reflected in higher PLAN and ACT scores.



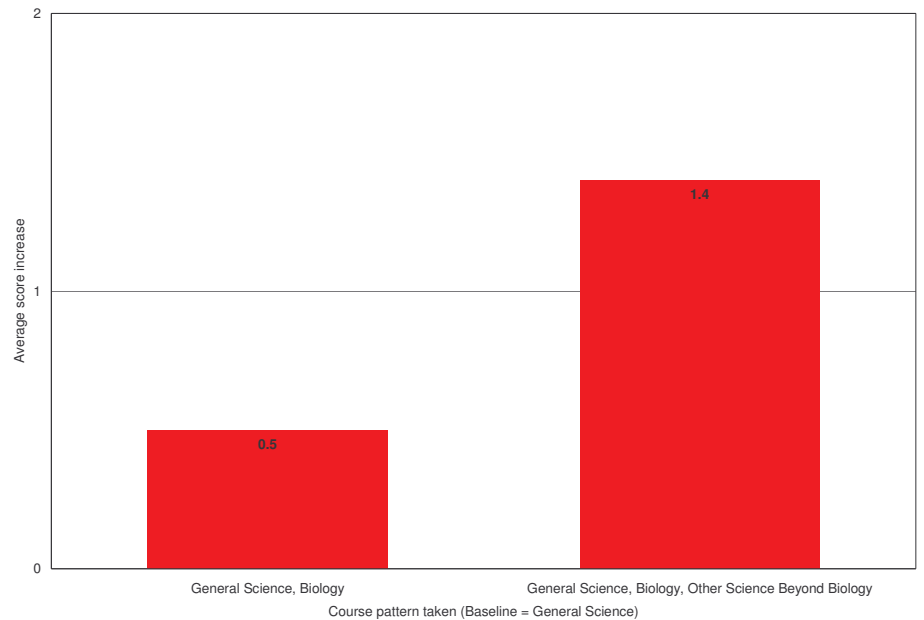
Average increase in ACT Mathematics scores from taking rigorous mathematics courses, regardless of prior achievement



Average increase in ACT Science scores from taking rigorous science courses, regardless of prior achievement



Average increase in PLAN Mathematics scores from taking rigorous mathematics courses, regardless of prior achievement

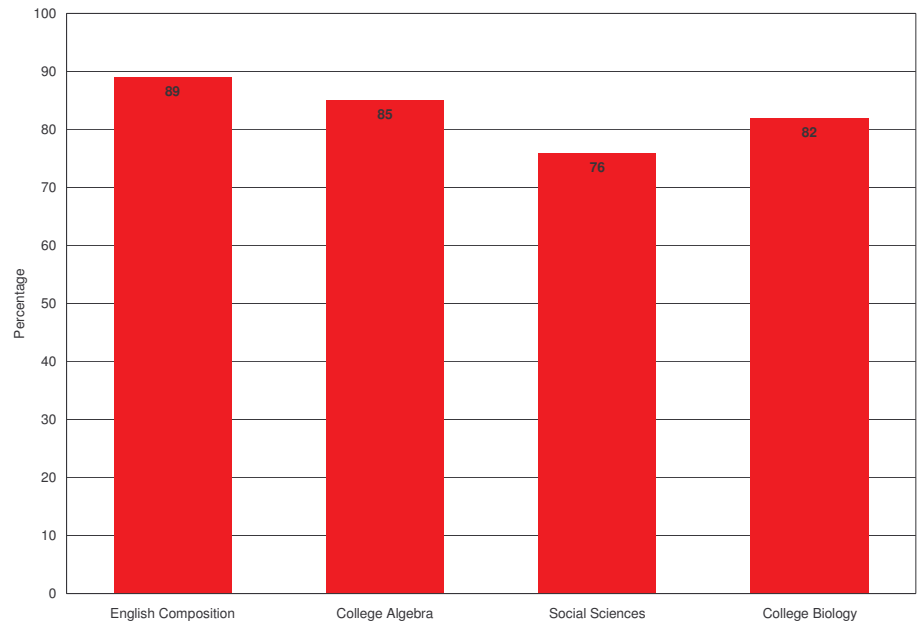


Average increase in PLAN Science scores from taking rigorous science courses, regardless of prior achievement

3. Using EPAS increases students' college readiness.

Students need to begin planning for college early, take rigorous courses, and monitor their progress toward being college ready. EXPLORE and PLAN scores are directly related to ACT scores and students' likely success in college-level courses. In 2004 ACT developed the College Readiness Benchmark scores—ACT scores that correspond to students' chances of success in college English Composition, Algebra, social sciences, and Biology. College Readiness Benchmark scores were also developed for EXPLORE and PLAN based on the Benchmarks for the ACT and on students' expected growth from one EPAS test to the next. The Benchmarks for EXPLORE and PLAN assume that tested students will maintain their current levels of academic work throughout high school. These Benchmarks provide direct indicators of students' likely success in college by the time they graduate from high school.

- **Students who meet the EXPLORE *and* PLAN College Readiness Benchmarks have a very high chance of meeting the College Readiness Benchmarks for the ACT and of being ready for entry-level college courses by the time they graduate from high school.**
 - 89 percent of students who meet both the EXPLORE and PLAN English benchmarks are likely to be prepared for college English Composition by the time they graduate from high school.
 - 85 percent of students who meet both the EXPLORE and PLAN Mathematics benchmarks are likely to be prepared for college Algebra by the time they graduate from high school.
 - 76 percent of students who meet both the EXPLORE and PLAN Reading benchmarks are likely to be prepared for college social sciences courses by the time they graduate from high school.
 - 82 percent of students who meet both the EXPLORE and PLAN Science benchmarks are likely to be prepared for college Biology by the time they graduate from high school.



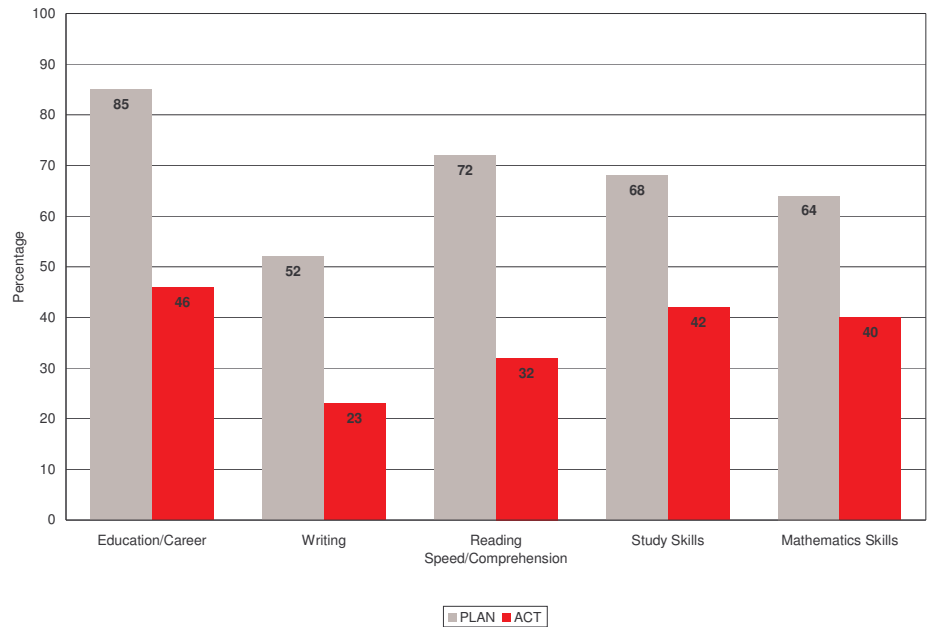
Percentage of students meeting EXPLORE and PLAN benchmarks who are college ready by graduation

- **Students who participate in EPAS are more likely to be college ready than those who do not participate.**
 - Students increase their odds of meeting the ACT College Readiness Benchmarks by participating in both EXPLORE and PLAN.
 - Compared to students not participating in both EXPLORE and PLAN, the odds of meeting the ACT English, Mathematics, Reading, and Science benchmarks are 44 percent, 30 percent, 24 percent, and 31 percent greater, respectively, for students participating in both programs.

4. Using EPAS promotes educational and career planning.

- **Students who participate in EXPLORE and PLAN have higher college aspirations and are more certain of those aspirations than students who do not participate.**
 - All students, regardless of race/ethnicity or gender, develop and crystallize their interests during high school, in preparation for making informed career and educational decisions. These decisions are more stable among students who use EPAS.
 - Students are over 30 percent more likely to be certain of their career and educational plans if they take PLAN than those who do not.
 - The odds of students planning to go to college increase by 39 percent if they take EXPLORE.
 - Students taking PLAN are twice as likely to consider college or graduate school as students who do not take PLAN.
- **Substantially fewer students indicate that they need educational and career guidance when their schools use PLAN and ACT information in career and educational planning.**

- The percentage of students needing help with educational and career planning, writing, and reading speed and comprehension decreases by about half between PLAN and ACT participation. The percentage of students needing help with study skills and mathematics skills decreases by one-third.

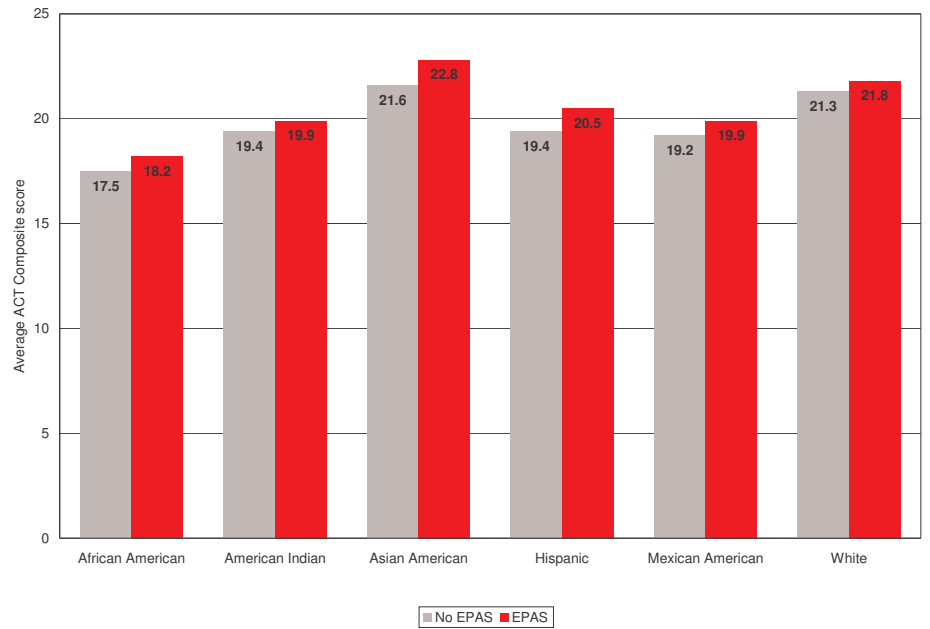


Percentages of PLAN- and ACT-tested students indicating need for help

5. Using EPAS promotes college readiness of underrepresented minority students.

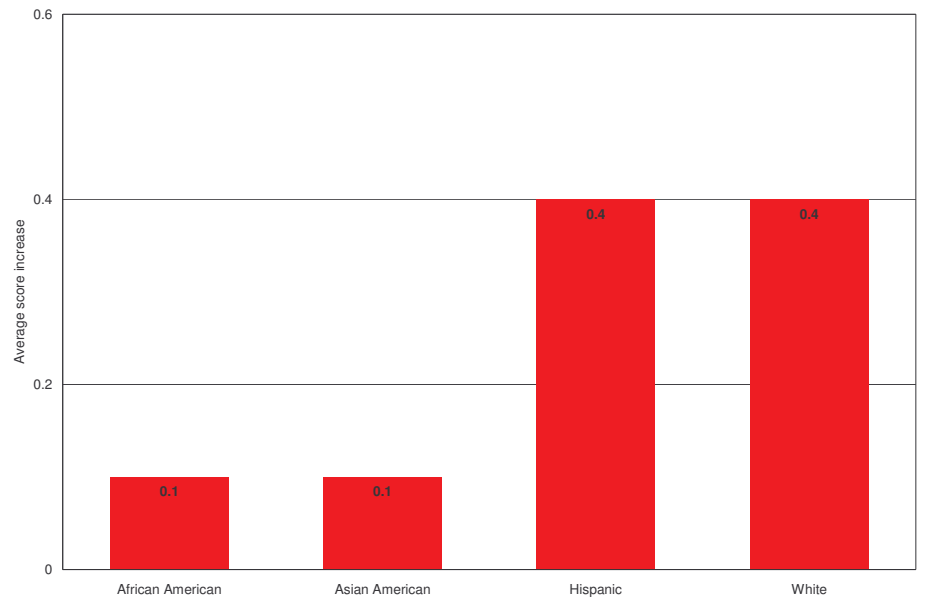
Participation in EPAS improves educational preparedness of all students, including students from underrepresented racial/ethnic minority groups, in terms of actual educational achievement and college readiness. Ultimately, students who participate in EPAS are better prepared for the academic demands of college than students who do not participate in EPAS.

- **Students of all racial/ethnic backgrounds who participate in all three EPAS programs attain higher scores on the ACT than similar students who do not, regardless of the high school they attend.**
 - Depending on racial/ethnic group membership, average ACT Composite scores of students who participate in all three EPAS programs are 0.5 to 1.2 points higher than those of students who do not participate in all three programs.



Average ACT Composite scores for racial/ethnic group members who do and do not participate in EPAS

- **In schools that use PLAN consistently, average ACT Composite scores of students of all racial/ethnic backgrounds increase over time more than they do in schools not using PLAN.**
 - Depending on racial/ethnic group membership, increases over time in average ACT Composite scores are 0.1 to 0.4 points greater for schools that use PLAN.

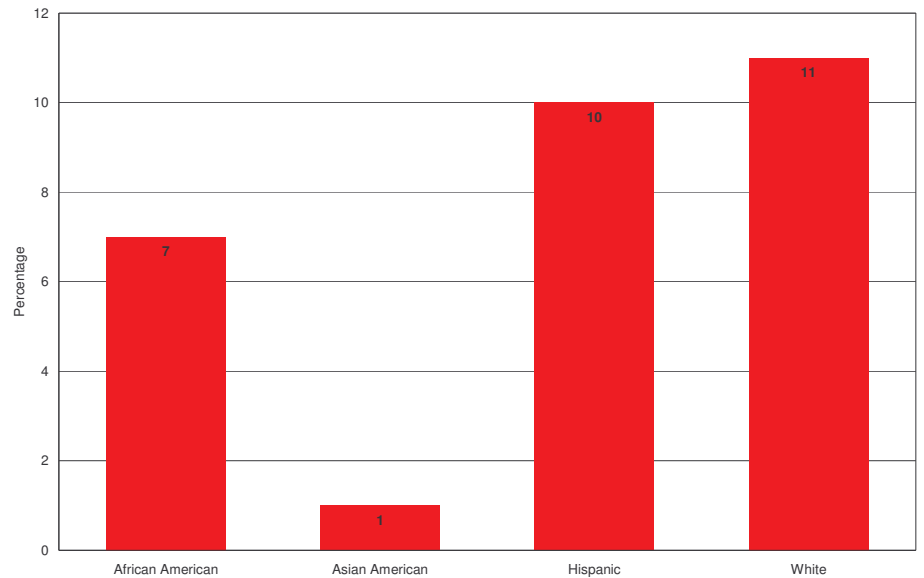


Increase over time in schools' average ACT Composite score associated with participation in PLAN

- **Compared to schools that do not use PLAN, schools that use PLAN consistently have greater increases over time in the percentages of students of all racial/ethnic backgrounds taking the college**

preparatory core curriculum in high school (four years of English and three years each of mathematics, social studies, and science).

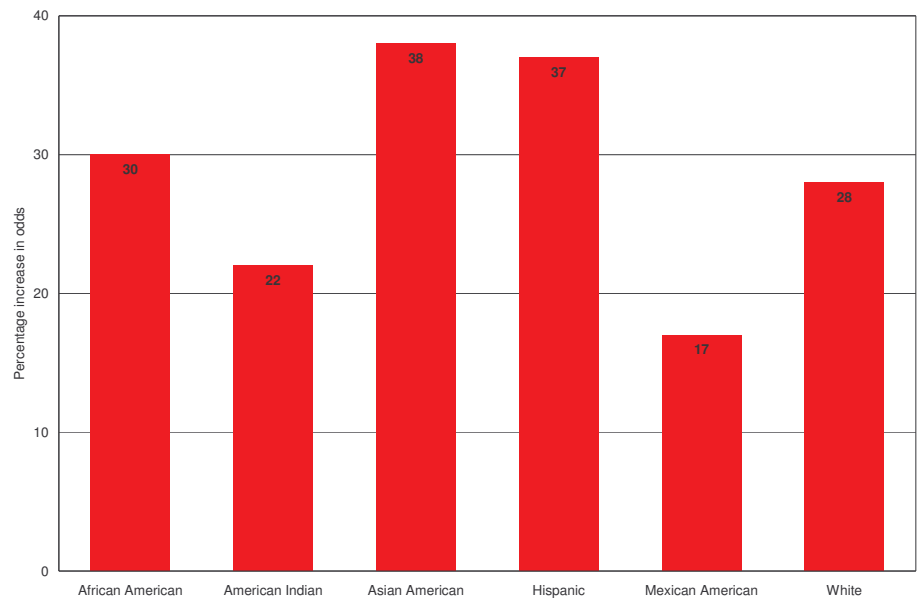
- Depending on racial/ethnic group, increases over time in the percentage of students taking or planning to take the core curriculum are 1 percent to 11 percent greater for schools that use PLAN.



Increase over time in schools' percentage of students taking/planning to take core curriculum associated with participation in PLAN

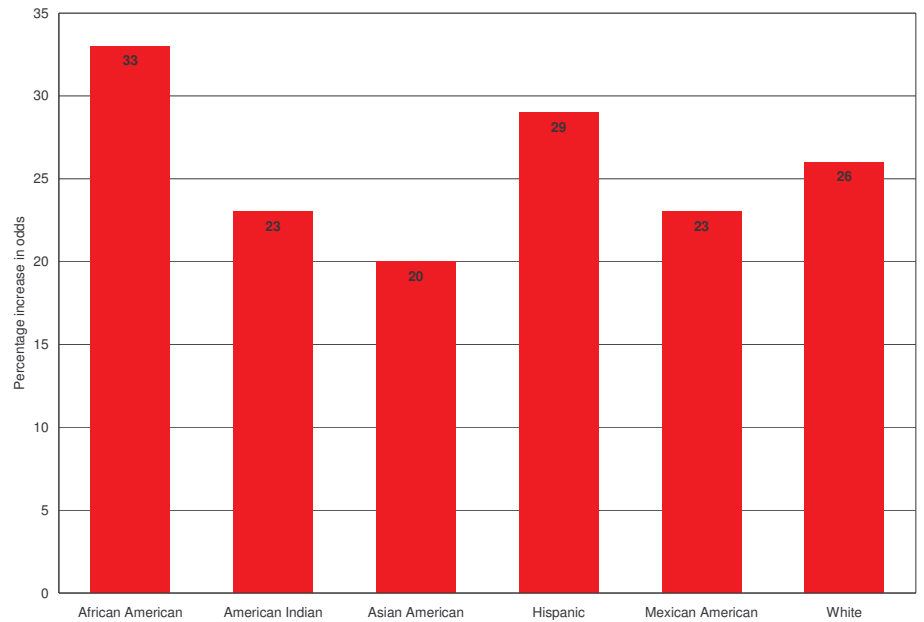
- **Students of all racial/ethnic backgrounds who participate in all three EPAS programs are more likely to take rigorous coursework in high school than those who do not, regardless of the school they attend.**

- Participation in EXPLORE and PLAN increases the odds of students taking the college preparatory core curriculum by 17 percent to 38 percent, depending on racial/ethnic group membership.



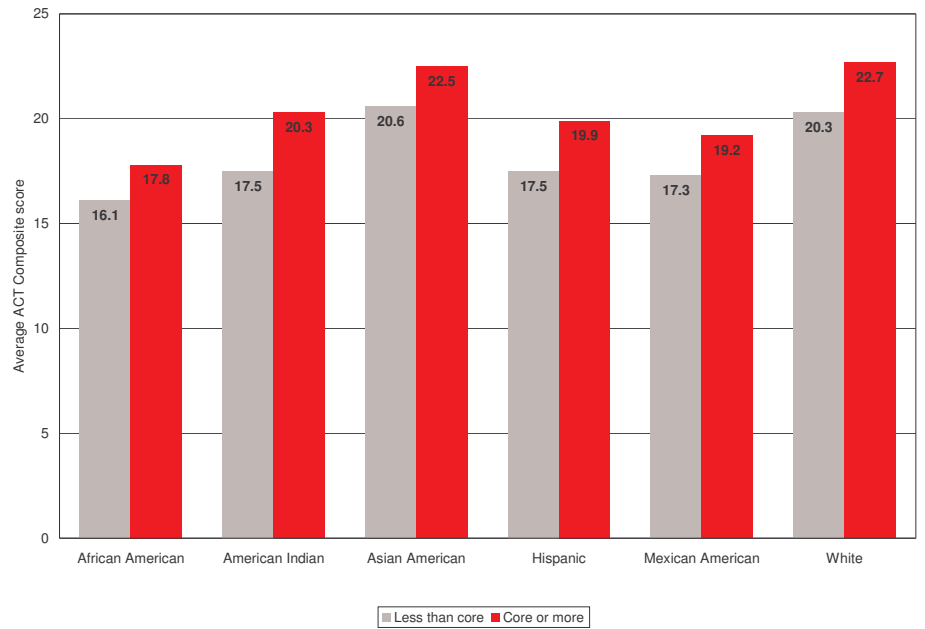
Increase in odds of taking/planning to take core curriculum associated with participation in EXPLORE and PLAN

- Participation in EXPLORE and PLAN increases the odds of students taking mathematics courses beyond Algebra I, Geometry, and Algebra II by 20 percent to 33 percent, depending on racial/ethnic group membership.



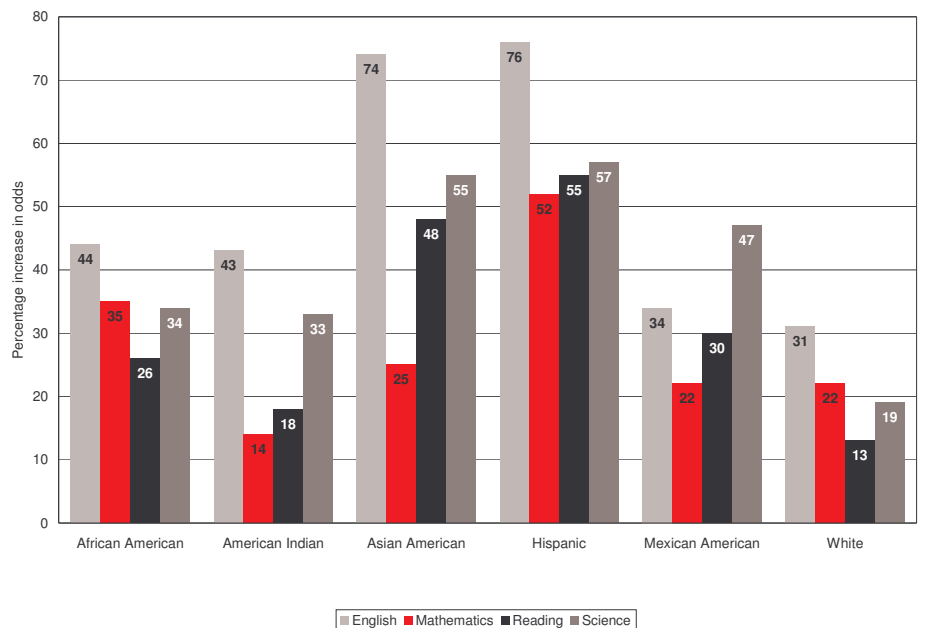
Increase in odds of taking/planning to take mathematics courses beyond the 3-year core mathematics sequence associated with participation in EXPLORE and PLAN

- Participation in EXPLORE and PLAN increases the odds of students taking science courses beyond Biology for most racial/ethnic groups, especially for African American (27 percent), Hispanic (26 percent), and White (26 percent) students.
- **Regardless of their race/ethnicity, students who take the college preparatory core curriculum in high school attain higher scores on the ACT than those students who do not.**
 - Depending on racial/ethnic group membership, average ACT Composite scores of students who take the core curriculum are 1.7 to 2.8 points higher than those of students who do not take the core curriculum.



Average ACT Composite score for racial/ethnic group members who do and do not take the core curriculum

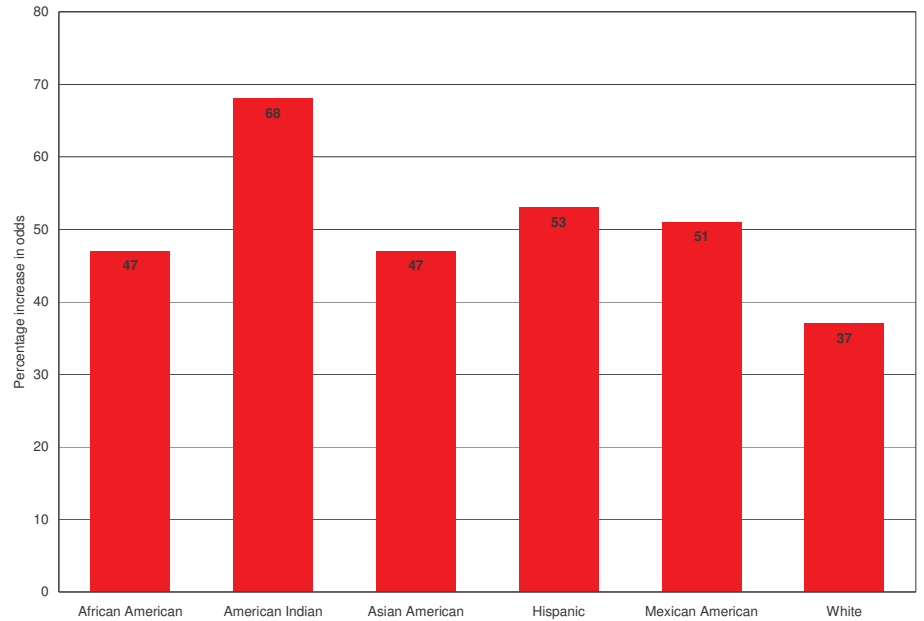
- **Students of all racial/ethnic backgrounds who participate in all three EPAS programs are more likely to be college ready than those students who do not.**
 - For students who participate in all three EPAS programs, regardless of their race/ethnicity, their increases in odds of meeting or exceeding the ACT College Readiness Benchmarks are greater than those of students who do not participate in all three EPAS programs. Compared to other racial/ethnic groups, the increases in odds of meeting or exceeding the ACT College Readiness Benchmarks are greatest for Hispanic students.



Increase in odds of meeting ACT College Readiness Benchmarks for racial/ethnic group members who participate in EPAS

- **Students of all racial/ethnic backgrounds who participate in EXPLORE are more likely to consider a college education, regardless of the high school they attend.**

- Participation in EXPLORE increases the odds of planning to go to college by 37 percent to 68 percent, depending on racial/ethnic group membership.

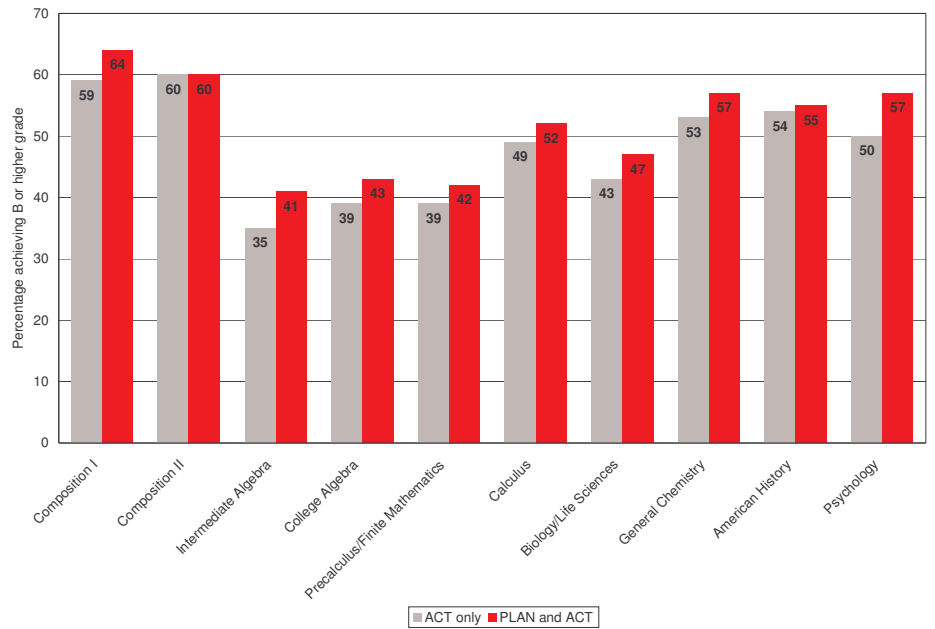


Increase in odds of planning to go to college associated with participation in EXPLORE

6. Using EPAS promotes educational achievement in college, college enrollment, and retention in college.

- **Students who participate in PLAN and the ACT achieve higher grades in college than students who participate only in the ACT.**

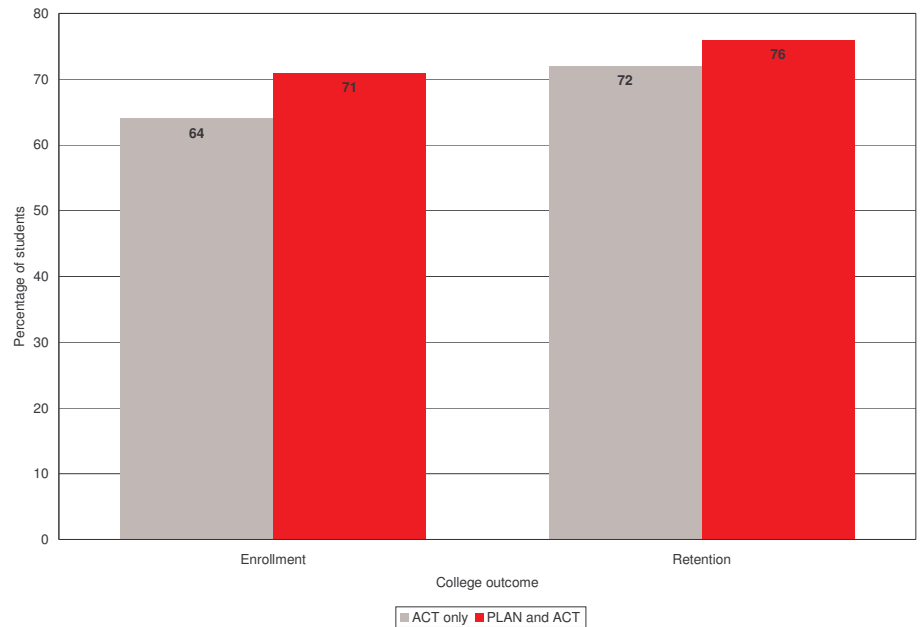
- Students who participate in PLAN and the ACT are up to 7 percent more likely to achieve a grade of B or higher in selected first-year college courses than students who participate only in the ACT.



Percentages of students achieving grade of B or higher in selected first-year college courses by level of EPAS participation

- Students who participate in PLAN and the ACT are 4 to 5 percent more likely to achieve a first-year college grade-point average of 3.0 or higher than students who participate only in the ACT. This is also true of students who meet ACT’s College Readiness Benchmarks and participate in both PLAN and the ACT or the ACT alone.
- **Students who participate in PLAN and the ACT are more likely to enroll in college and re-enroll in the same college their second year than students who participate only in the ACT.***

* Enrollment rates were calculated based on 2003 ACT-tested high school graduates who entered college for the first time immediately after graduation. College retention rates were calculated for ACT-tested enrolled college students who re-enrolled in the same college in Fall 2004. Enrollment and student data were provided by the National Student Clearinghouse. Slightly more than one-third of 2003 ACT-tested graduates participated in PLAN in grade 10 as well as the ACT in grade 11 or 12.



Percentages of students meeting selected college outcomes by level of EPAS participation

Similar results are seen regardless of students' gender, race/ethnicity, family income level, or the specific courses they take in high school. This is also true of students who meet ACT's College Readiness Benchmarks or take the core curriculum in high school and participate in both PLAN and the ACT or the ACT alone.

Model Uses of EPAS

Student success is contingent on the degree to which schools comprehensively integrate students, teachers, and parents into the use of EPAS.

Schools that are successfully preparing students for college . . .

- Engage students in such activities as:
 - individually reviewing their EXPLORE, PLAN, and ACT results with school personnel
 - using their PLAN results along with career and educational resources, such as Internet career guidance programs and library materials
 - comparing their PLAN career information with high school course plans to ensure that their course-taking plans are consistent with their goals after high school
 - using ACT's College Readiness Standards to help them understand what they need to know to be ready for college and workplace success

- Engage teachers in such activities as:
 - using EXPLORE results as an initial screening tool to identify lower-achieving students and those who are academically gifted. Teachers are then able to develop special curricular programs aimed at strengthening high school readiness skills or programs designed to maximize the potential of high-achieving students

- ❑ using PLAN results to help monitor students’ progress throughout high school, and to inform academic interventions
- ❑ examining students’ overall achievement on EPAS as it relates to progress on curricular, school, and district improvement goals
- Engage parents in such activities as:
 - ❑ meeting with students, teachers, and counselors to review EXPLORE, PLAN, and ACT student reports
 - ❑ reviewing the PLAN supplemental materials “Planning Guide for Students and Parents” and “Family Firsts”
 - ❑ open houses that encourage parents to speak with teachers
 - ❑ college-planning sessions and career nights
 - ❑ student mentoring programs

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