

FINDINGS FROM ACT CONDITION OF STEM 2015 CALIFORNIA REPORT

Interest in STEM Careers

1. There was significant interest in STEM careers among California's 2015 class of graduating seniors.
2. Fully 52% of graduating seniors indicated an interest in STEM, an increase of 4% over 2011 and exceeding the national figure of 49%.
3. Interest in STEM careers was large across majors/occupations: 30% in science, 33% in medical and health (down 5% since 2011), 25% in engineering and technology (up 2% since 2011), and 11% in computer science and mathematics (up 2% since 2011).

STEM College Readiness Benchmarks

1. Of the four subjects measured on the ACT assessment (English, reading, mathematics and science), performance in science is lowest.
2. Of graduating seniors who took the ACT in California, 75% demonstrated college readiness in English, 57% in reading, 62% in mathematics, and 52% in science.
3. Significant disparities exist in both mathematics and science college readiness among racial/ethnic groups. In the case of science readiness, 26% of African American graduating students and 30% of Hispanic graduating students attain ACT college readiness benchmarks. Among White graduating students, 71% and among Asian graduating students, 68% attain college readiness in science. Similar patterns obtain in mathematics.
4. Male graduating students are more likely than females to attain mathematics and science readiness benchmarks. In mathematics, 70% of male and 55% of female graduating students attain college readiness. In science, 58% of male and 46% of female graduating students attain college readiness.
5. On the ACT combined STEM college readiness benchmark, attainment levels are lower. It includes both math and science readiness at the levels required to succeed in STEM majors. Only 40% of graduating students with an interest in STEM demonstrate college readiness on the ACT STEM college readiness benchmark. Large disparities are again found by ethnicity and gender.
6. Nationally, graduating seniors perform higher on benchmarks in English, reading, and math, than they do in science. In California, differences are particularly large. For example, 62% of California's graduating students attain mathematics and 52% science benchmarks. Differences nationally are not as large—with a four percent versus a ten percent difference.

Conclusions

Striking patterns were found among California's graduating high school students who took the ACT in 2015. Interest in STEM was high—and in fact among the highest in the nation, College Readiness in math and science were 62% and 52% respectively. The low science college readiness raises a range of important questions.