

Cambridge International Performance Indicates College Readiness

Cambridge IGCSE Performance and First Year Performance at Arizona State University

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Background

Cambridge Assessment International Education launched its first partnership with Arizona schools in 2010. In the last decade, nearly 19,000 Arizona high school students have participated in assessments for Cambridge Advanced (AS Level and A Level) and Pre-Advanced (IGCSE or the International General Certificate of Secondary Education). The IGCSE figures prominently in the Center for the Future of Arizona’s “Move on When Ready” initiative and Grand Canyon Diploma, which confers the same privileges as an Arizona high school diploma and is recognized in Arizona State University (ASU) admissions decisions as evidence of adequate preparation for college-level coursework. In addition, students who progress from the IGCSE into the AS and A Level program have the opportunity to pass exams for course credit and placement at Arizona universities and over 850 higher education institutions across the United States. This research brief highlights findings on 924 high school students who participated in Cambridge International between 2011 and 2018 and enrolled at ASU.*

Key Findings

- **Students who participated in the Cambridge International program and enrolled at Arizona State University showed strong performance in many academic metrics, including high school GPA and SAT and ACT scores.** Moreover, results show a moderate to strong relationship between students’ performance on several Cambridge assessments and the SAT and ACT, suggesting Cambridge shares a similar level of rigor as common U.S. admissions exams used for judging academic aptitude. For higher education institutions considering alternative admissions criteria, the Cambridge IGCSE can provide a rigorous and nuanced indication of student preparedness for college study.

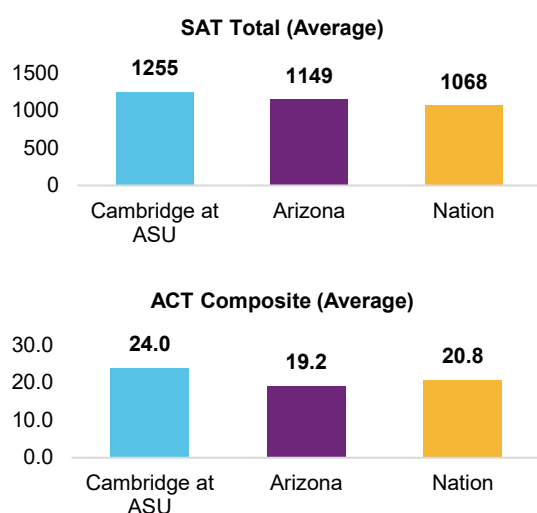


Figure 1. Average SAT and ACT scores for Cambridge students attending ASU compared to averages for state and nation.

Correlation (<i>r</i>) of Assessment Scores		
Qualification/Subject	SAT	ACT
IGCSE: Chemistry	0.72	0.77
IGCSE: Biology	0.69	0.72
IGCSE: Mathematics	0.71	0.69
IGCSE: Coordinated Sciences	0.50	0.68
IGCSE: History	0.57	0.61
IGCSE: American History	0.58	0.57
IGCSE: Literature (English)	0.51	0.48

Figure 2. Correlation (*r*) between Cambridge high school assessments (IGCSE or AS/A Level) and U.S. college admissions tests (SAT and ACT).

* Note that this document presents initial research findings that are in preparation for future publication.

- **Results from this study demonstrate that strong performers in Cambridge’s IGCSE program are likely to meet rigorous admissions requirements.** This is particularly significant when considering Arizona’s Cambridge schools enroll large numbers of traditionally underserved populations, with approximately 50 percent of students identifying as Black or Hispanic/Latino. The study also involved students who graduated from schools across the state, including Dysart Unified District, Kingman Unified School District, Yuma Union High School District, and Arizona State University Preparatory Academy.
- **Taken collectively, high school GPA and performance on several IGCSE assessments serve as a better predictor of first-year college success than high school GPA alone.** Specifically, the combination of high school GPA and performance on Grand Canyon Diploma subjects (American History, History, Biology, Chemistry, Mathematics, and First Language English) was a good predictor of credit hours completed, first semester GPA, and first year GPA at ASU. Students’ IGCSE performance therefore has informative value (i.e., predictive value) for first-year college outcomes, which may help inform admissions decisions when evaluating a student’s preparedness for college.
- **Student performance on the IGCSE in Mathematics shows a strong relationship with performance in ASU mathematics courses.** Students with higher grades in the IGCSE Mathematics assessment generally earned higher grades in their ASU math courses, specifically in MAT 170 (Precalculus) and MAT 270 (Calculus with Analytic Geometry I). The data suggest that IGCSE Mathematics performance can be a good indicator of student potential to succeed in college-level math courses, particularly when students take the IGCSE in combination with other rigorous math courses during high school, such as AS and A Level Mathematics.

