

Preparing Successful Students: Cambridge International Student Performance in the US

CCIC Forum 2022

November 21, 2022

James Bishop

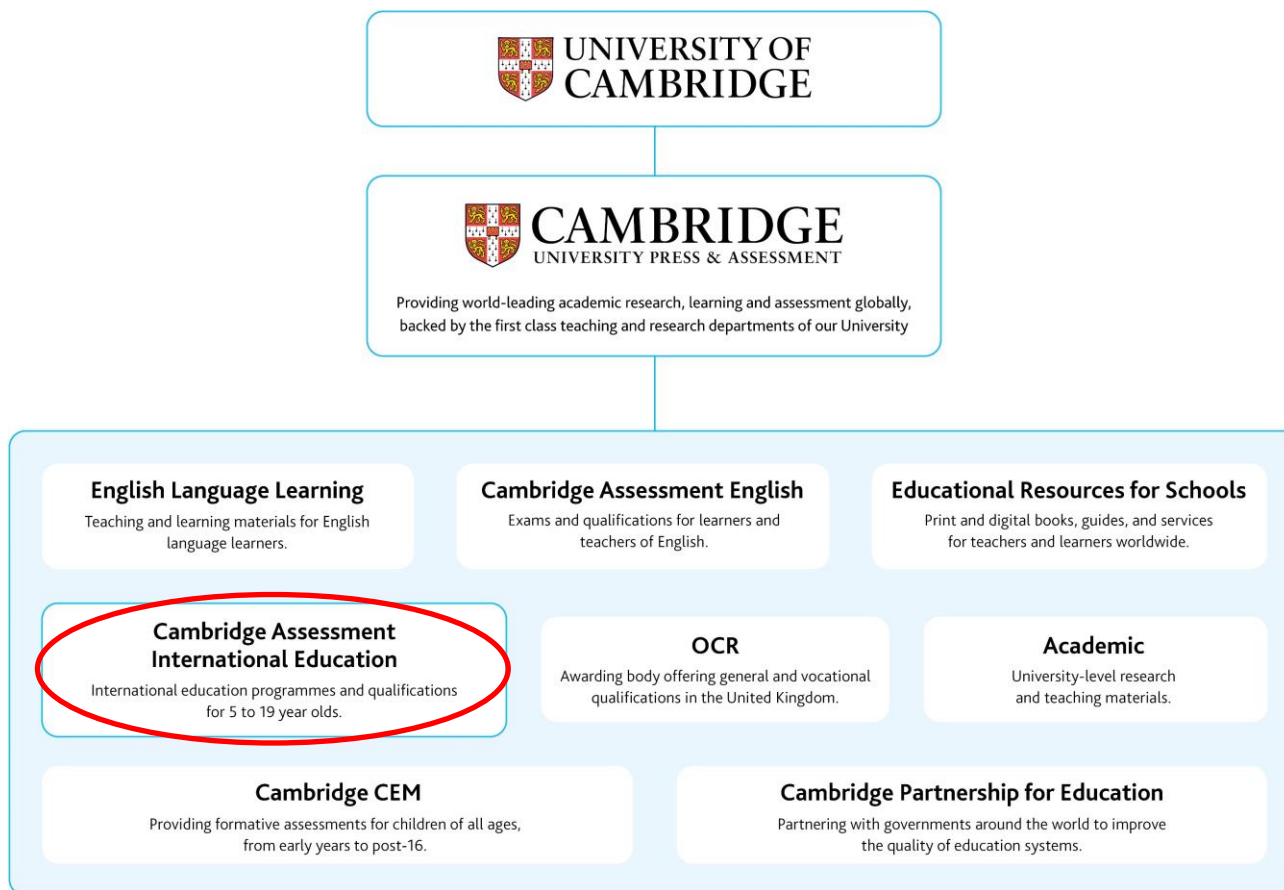
Higher Education Manager, Northeast US



Agenda

- ▶ Cambridge International Background
- ▶ Cambridge International in the U.S.
- ▶ Cambridge Program Overview
- ▶ Research Findings
- ▶ Admission Resources

Cambridge International Structure



A part of the University of Cambridge

- **Prepare** school students for life, helping them to develop an informed curiosity and a lasting passion for learning.
- At the heart of a **global learning community** with more than 10,000 schools, including the US.
- **Work in partnership** with educators worldwide, including 40 national governments and education reform projects.



The Cambridge Pathway: Our core global offer

Cambridge Pathway



A clear path for educational success from age 5 to 19

Our focus today

Grades K-5

Cambridge Primary

5 to 11 years old*

- English (1st and 2nd language)
- Mathematics
- Science
- ICT
- Cambridge Global Perspectives

Grades 6-8

Cambridge Lower Secondary

11 to 14 years old*

- English (1st and 2nd language)
- Mathematics
- Science
- ICT
- Cambridge Global Perspectives

Grades 9-12

Cambridge Upper Secondary

14 to 16 years old*

- A wide choice of subjects at:
- Cambridge IGCSE® (70+ subjects)
 - Cambridge O Level (40+ subjects)
- Cambridge ICE Certificate

Cambridge Advanced

16 to 19 years old*

- A wide choice of subjects at:
- Cambridge International AS & A Level (55+ subjects)
 - Cambridge Pre-U (20+ subjects)
- Cambridge AICE Diploma

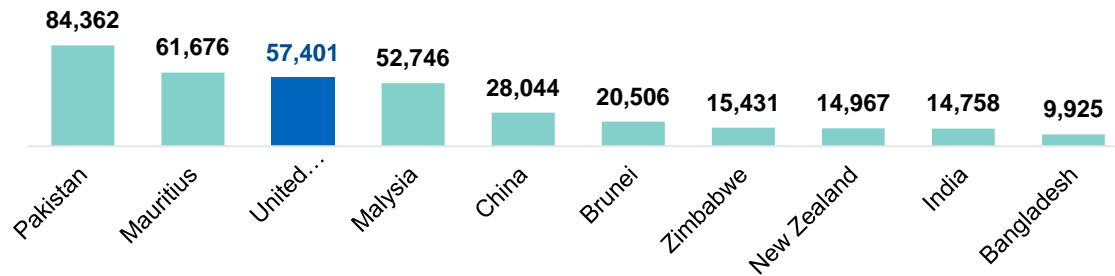
Cambridge Professional Development for teachers and school leaders

*Age ranges are for guidance only

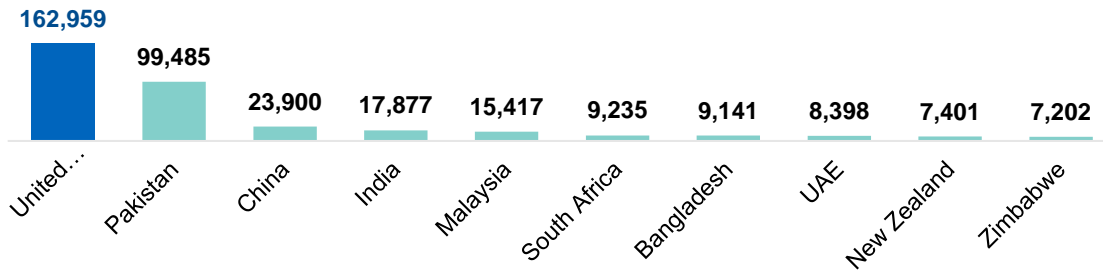
Learn • Discover • Achieve

Global Trends

AS Level Entries (2014/15)



AS Level Entries (2021/22)



- Over 432,000 AS Level exams taken in 2021/22, representing fastest growing Cambridge qualification
- Over the last 5 years: AS/A Level exams globally grew by 13% globally. During same period, in the US grew by 169%.
- The U.S. currently serves more Cambridge Advanced students than any other country

Cambridge in the United States

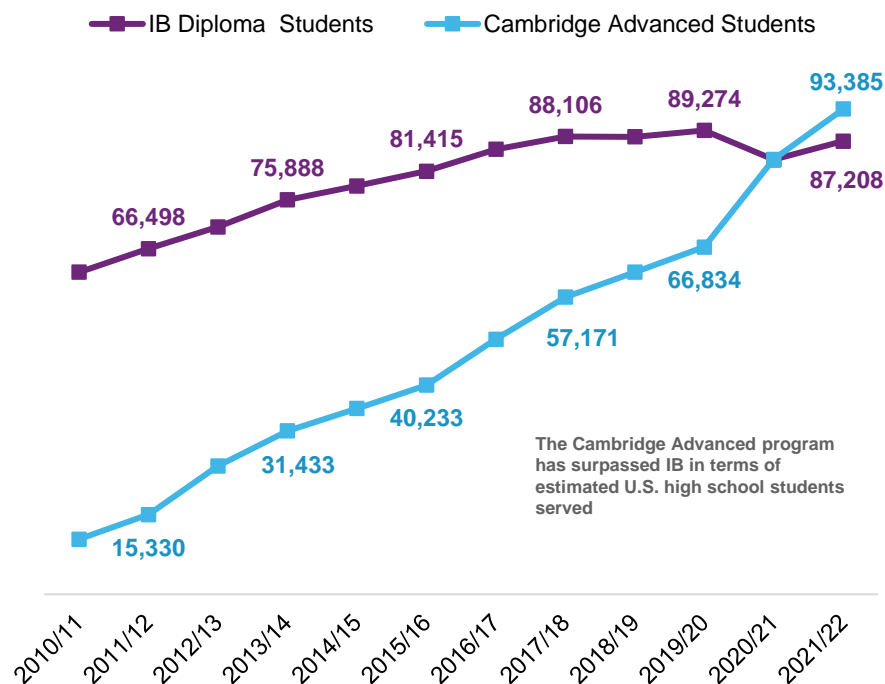
In the U.S., **Cambridge International has 560 schools in 24 states**, enrolling more than **80,000 students** per year. As many U.S. high school students are enrolled in Cambridge courses as are enrolled in the IB program.

93% of Cambridge International schools in the U.S. are public schools.

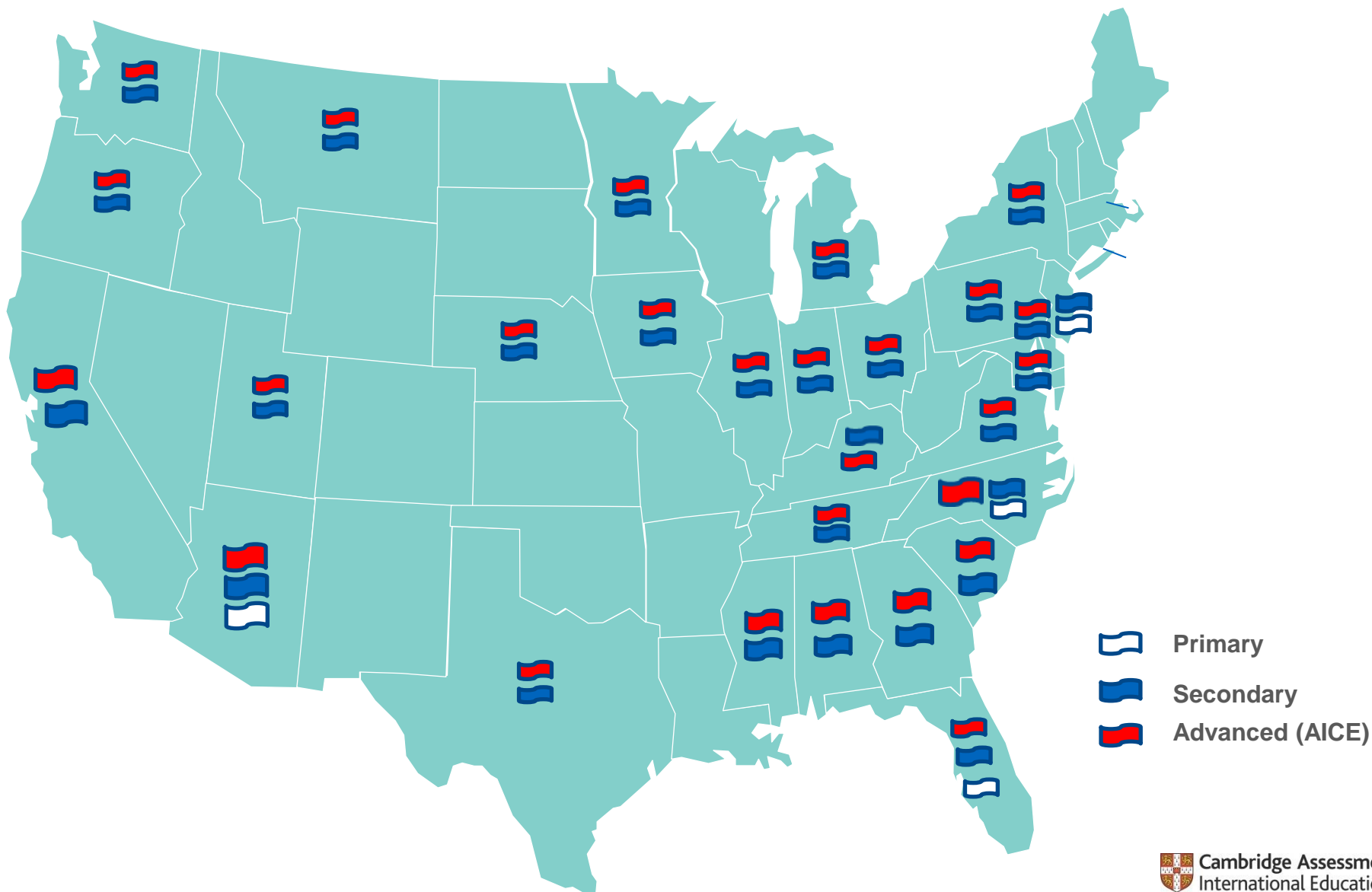
Our schools range from small, rural high schools in Kentucky, Mississippi, and South Carolina to large urban school districts like Miami Dade County.

Many of our schools are in under-served communities, with high percentages of poverty.

Number of Candidates (IB vs. Cambridge)

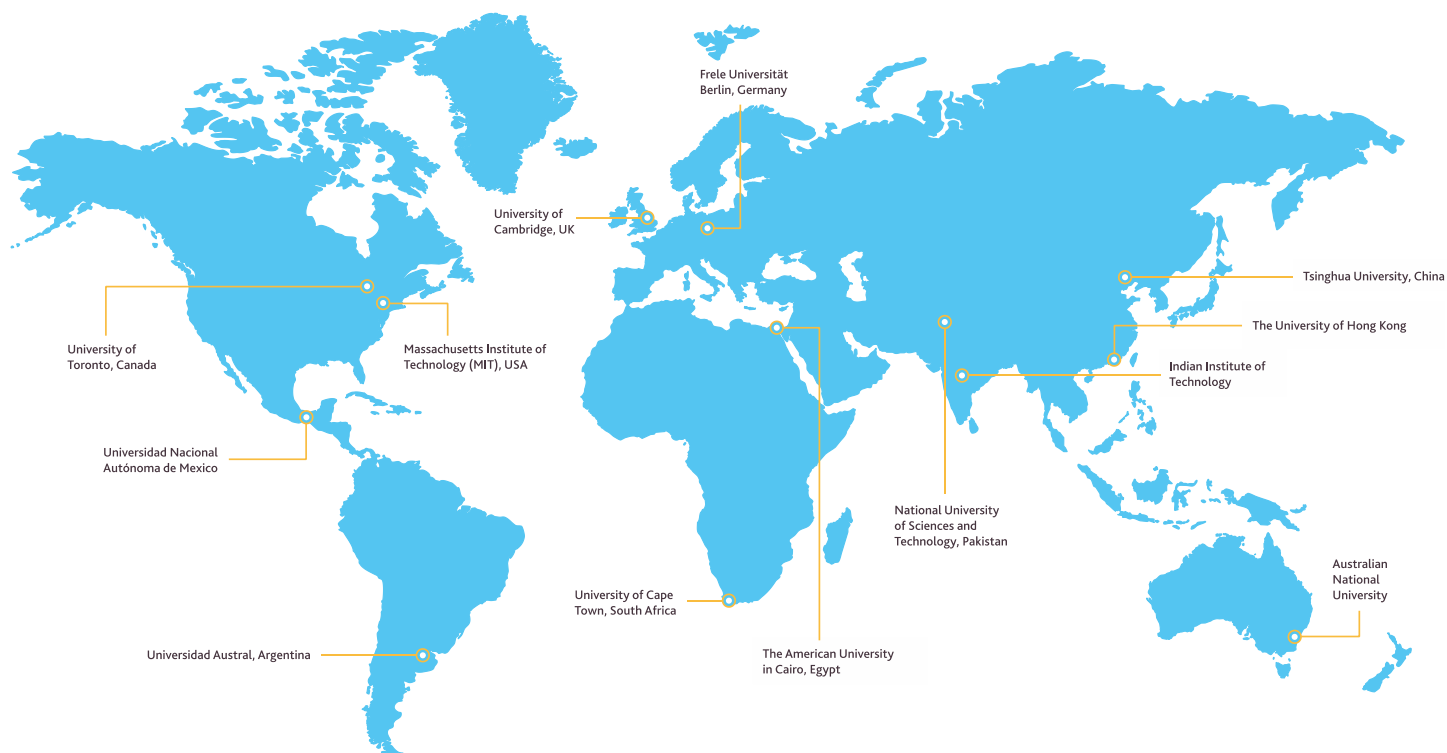


Cambridge in the United States

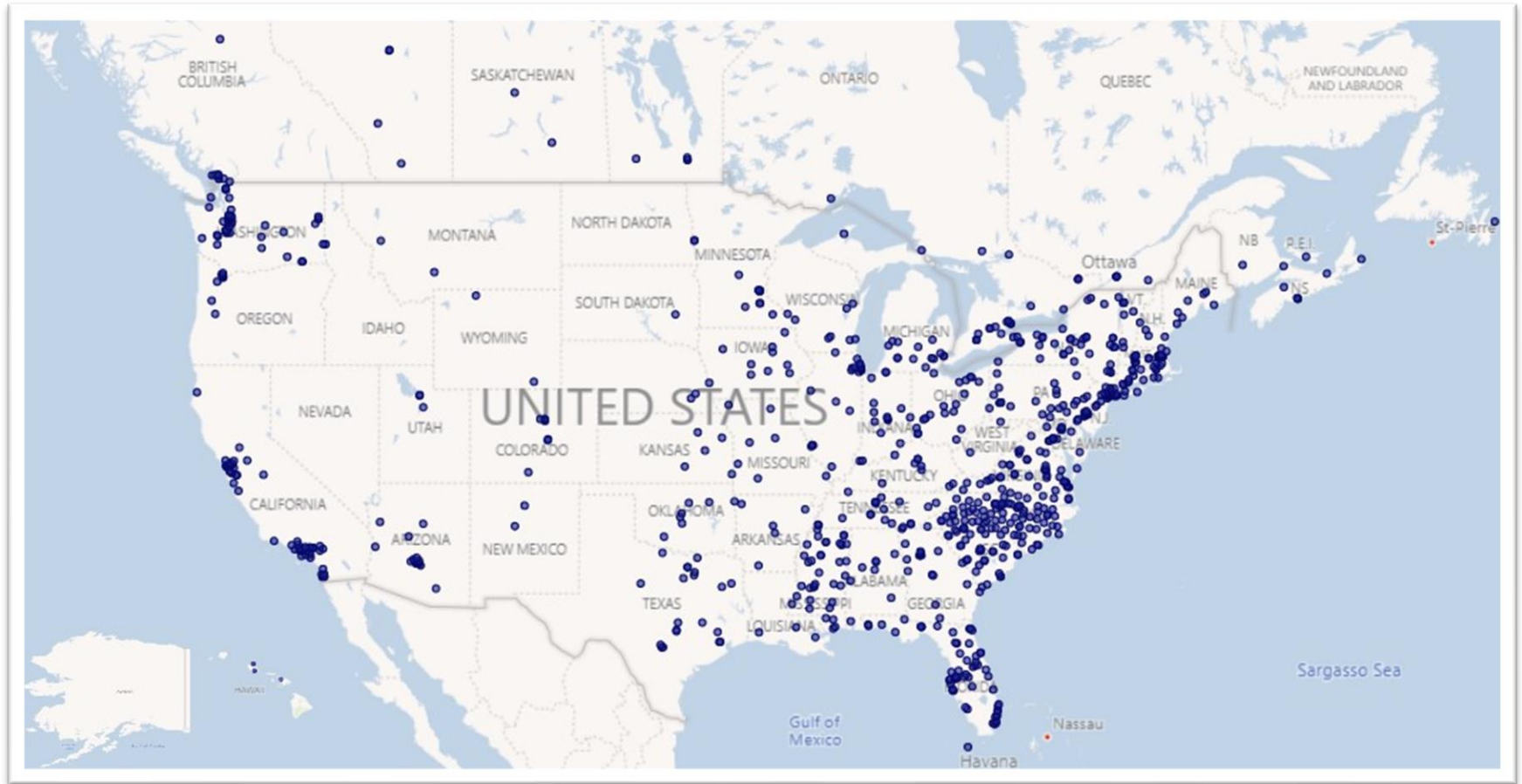


Global Recognition

Cambridge qualifications are accepted at over **1500** institutions across **195** countries, including these top ranking universities in the US, UK and elsewhere.



Credit & Placement in over 850 U.S. Colleges & Universities



The Cambridge Program



The Cambridge Pathway: Our core global offer

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Cambridge Professional Development for teachers and school leaders

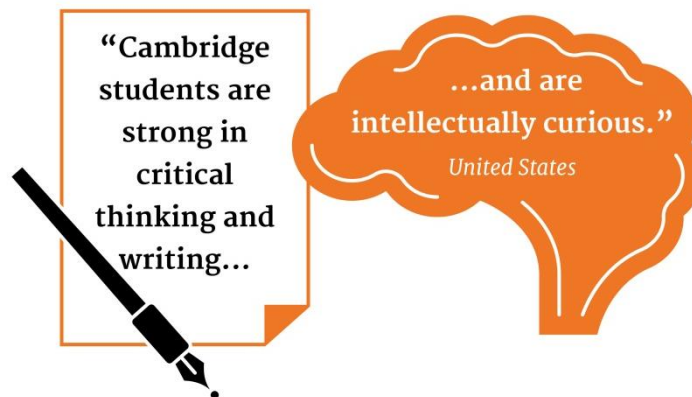
*Age ranges are for guidance only

Learn • Discover • Achieve

Cambridge International Advanced Subsidiary (AS) and Advanced (A) Levels

An established and well known rigorous curriculum

- **Focuses on developing the skills and knowledge required for university study in higher education around the world**
- **Covers essential key concepts for the subject**



Opportunity for in-depth learning in over 55 subjects

- **A Levels include 360 class contact hours, usually over 2 years; AS levels cover the first year/180 contact hours.**
- **International in outlook, but with local relevance**

Tens of thousands of students use it every year to gain entrance at leading universities worldwide

Comparative Teaching Hours

- ▶ **Cambridge** AS-level syllabi require **180** guided learning hours per subject over the duration of the course (normally one year) and Cambridge A-level syllabi require **360** guided learning hours per subject over the duration of the course (normally two years).
- ▶ **International Baccalaureate** has a published recommended teaching time of **240** hours to complete Higher Level (HL) courses and **150** hours to complete Standard (SL) courses.
- ▶ **Advanced Placement** courses by the College Board do not have official published teacher hours. However, according to the Qualification Information Profile, they are based on a typical course teaching time of 135 hours per year, plus 30 hours study time – a total of **165** hours.

Cambridge Exam Grade Equivalencies

USA	AS Level	A Level
A+	a	A*
A	a	A
B+	b	B
B	c	C
C+	d	D
C	e	E
D+	<i>n/a</i>	<i>n/a</i>
D	<i>n/a</i>	<i>n/a</i>
F	<i>Ungraded</i>	<i>Ungraded</i>

- AACRAO Edge's UK/US grade comparisons at <http://edge.aacrao.org/>
- World Education Services (WES) 2014, <https://wenr.wes.org/2014/02/a-guide-to-the-gce-a-level>

Recommended Credit for Exam

	Humanities & Others	Sciences with Lab
AS Level	3 credits	4 credits
A Level	6 credits	8 credits

- AACRAO College & University Journal Vol 80, No 2, Fall 2004
- WES 2014, <https://wenr.wes.org/2014/02/a-guide-to-the-gce-a-level>
- International Education Research Foundation (IERF)

Credential Evaluators Recommendations

World Education Services (WES)

recommends eight U.S. semester credits per A-level subject as they consider it completion of two consecutive, first-year undergraduate courses in a given subject (e.g. Math 101 and Math 102). 'As AS-levels are taken after the first year of sixth form... we recommend four U.S. semester credits per applicable subject.'

World Education Services (WES) 2014, <https://wenr.wes.org/2014/02/a-guide-to-the-gce-a-level>

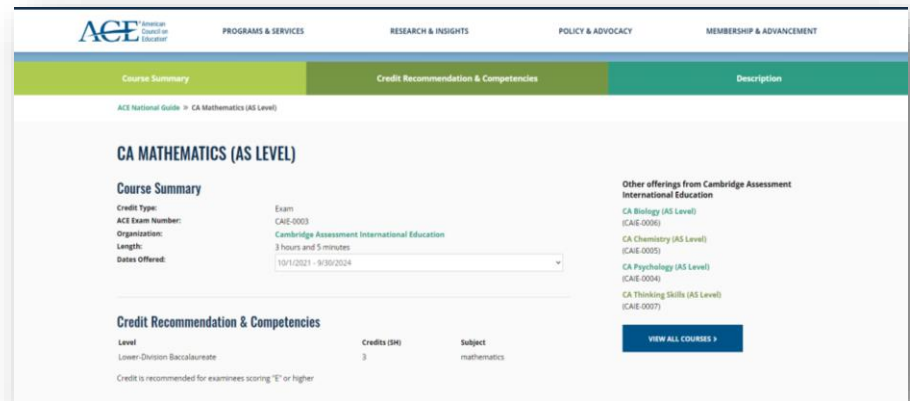
Educational Perspectives

recommends 4 undergraduate credits for AS-levels and 8 credits for A-levels.

A July 2017 [International Association for Collegiate Admissions Counseling \(IACAC\) presentation](#) entitled, 'A Comprehensive Guide to A Level and GCSE changes in the UK and Globally' presented by Basirat Agboola, Progression and Recognition Manager for Pearson, Vera Bagnyuk, Recognition Manager, North America for Cambridge International Examinations, and Emily Tse, Director of Evaluation at **International Education Research Foundation (IERF)** as well as **AACRAO's** College and University Journal, Vol. 80, No. 2, Fall 2014 have recommended 3-4 credit hours for AS-levels and 6-8 credit hours per A-level.

American Council on Education CREDIT® Review

- ▶ ACE stands as an independent evaluator of courses and exams whose credit for prior learning recommendations are *trusted* by higher education faculty.
- ▶ Courses or exams are reviewed on a 3-yr cycle.
- ▶ ACE Faculty Reviewers considered how well the assessment (or course) matches to the content and skills covered in college-level courses in that subject. Our exam development and psychometric processes were also reviewed.
- ▶ The AS Level exams submitted
 - ▶ Biology
 - ▶ Chemistry
 - ▶ Mathematics
 - ▶ Psychology
 - ▶ Thinking Skills



Recommendations are now published on [ACE National Guide](#).

The review recommended college credit awarded for grade of E or higher across the five subjects.

Notes on Exams

- ▶ Compelling evidence is provided that Cambridge Assessment International is meeting their broad goals of preparing students for life and developing a lasting passion for learning.
- ▶ The AS Level exams use a variety of item formats, with the overarching method of submission by examinees involving some form of free-response rather than the more typical multiple-choice type question format found on many standardized exams in the United States.
- ▶ New items are developed for every single exam form.
- ▶ The AS Level exams are administered using the most rigorous security procedures for exam proctoring.

Psychometric Notes

- ▶ “The validity, reliability, and fairness of the exams are well demonstrated and not only meet but exceed best practices in the field.”
- ▶ “There is a thorough item development process. This includes an established program for item developers with clear instruction and training to avoid bias and promote fairness as part of the item development process. This purpose-driven process culminates in longitudinal research to evaluate examinee performance on related assessment instruments as well as on key indicators of college and career success. *The process of collecting this type of information is often only an aspirational goal for many organizations, and research suggests that the AS Level exams may be more culturally fair than other, similar programs.*”

Research Findings



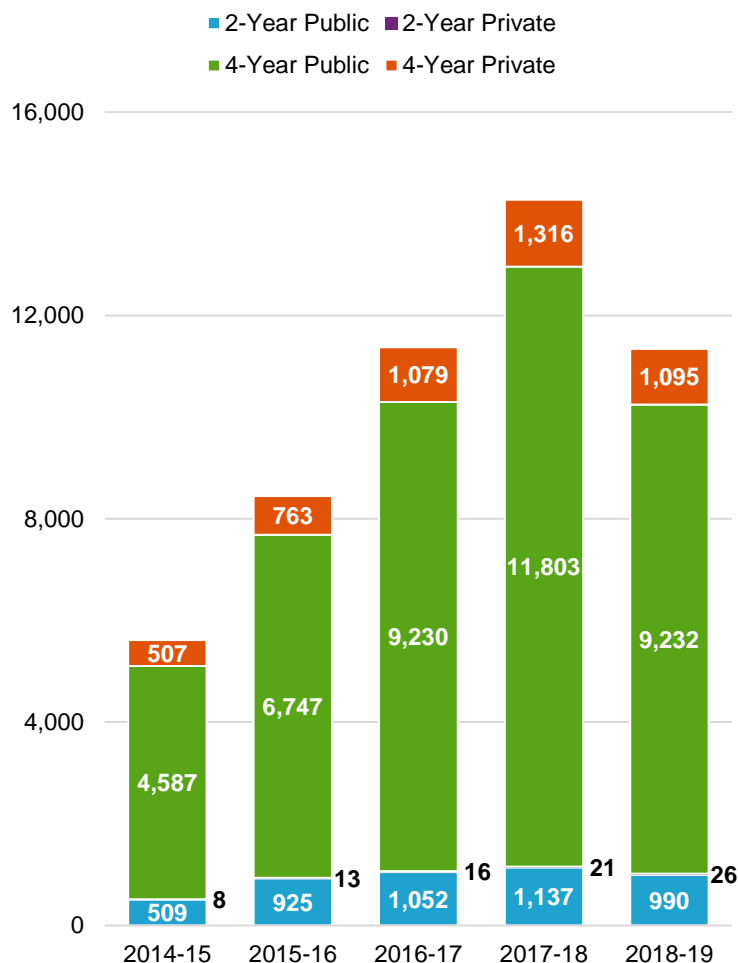
Cambridge International College-Going Graduates: Outcomes

Population:

- Data provided by National Student Clearinghouse
 - Limited to students who could be identified in National Student Clearinghouse and matched to Cambridge records
- Students who took a Cambridge assessment between **2012 and 2017**
- **Domestic students** who attended a U.S. high school (no international)
- Approximately **5,000 to 8,000 students per cohort** in earlier years (e.g., 2015-16 and 2016-17)

Cambridge International College-Going Graduates

Enrollment by Institution Type/Admit Year



Top Universities Where Cambridge Students Enroll

2-Year Public

- Arizona Western College (AZ)
- Tallahassee Community College (FL)
- Northeast Mississippi Community College (MS)
- North Virginia Community College (VA)

2-Year Private

- Florida Career College (FL)
- ASA College (NY)
- Carrington College (AZ)
- Wentworth Academy (MO)
- Ensign College (UT)
- Delaware College (DE)

4-Year Public

- Palm Beach State (FL)
- University of Florida (FL)
- Florida State University (FL)
- Edison State College (FL)
- Miami Dade College (FL)
- Arizona State University (AZ)
- University of Arizona (AZ)
- University of Washington (WA)
- University of Delaware (DE)
- University of Alabama (AL)
- Troy University (AL)
- George Mason (VA)

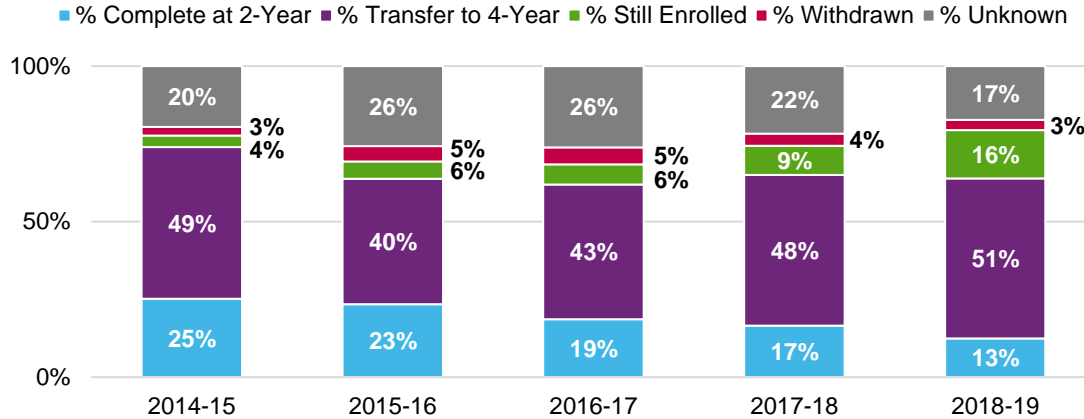
4-Year Private

- University of Miami (FL)
- Nova Southeastern University (FL)
- Stetson University (FL)
- New York University (NY)
- Grand Canyon University (AZ)
- Boston University (MA)
- Cornell University (NY)
- Duke University (NC)
- Savannah College of Art and Design (GA)
- Lee University (TN)

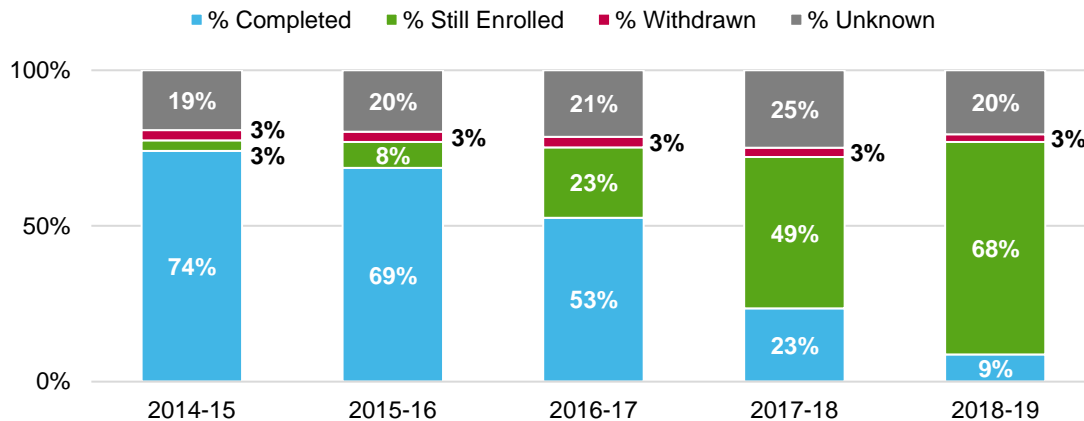


Cambridge International Students: Overall College Outcomes

Student Outcomes by Admission Term (2-Year Colleges)



Student Outcomes by Admission Term (4-Year Colleges)



Key Findings:

- In most years, at least 65% of Cambridge students who start at 2-year college will complete, transfer, or remain enrolled
- Typically, 40% to 50% of Cambridge students who start at a 2-year institution transfer to a 4-year institution
- More than 69% of students who started at a 4-year college in 2014-15 and 2015-16 have graduated

Research on IGCSE and College Preparation in Arizona

College performance in Arizona

➤ Research questions

- Do successful IGCSE students perform well on other **college readiness metrics**?
- Does IGCSE success predict **first-year college success**?
- Is IGCSE Mathematics performance correlated with first-year **college math performance**?

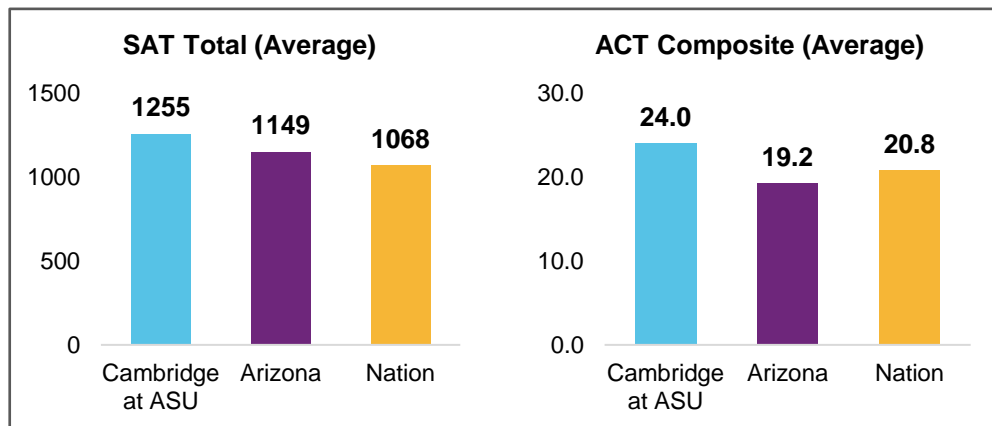
➤ Study population

- 924 students who participated in Cambridge from 2011 to 2018
- Students who continued on to study at Arizona State University
- 50% of students identify as Black and/or Hispanic/Latino



Research on IGCSE and College Preparation in Arizona

Average SAT and ACT scores of Cambridge students at ASU



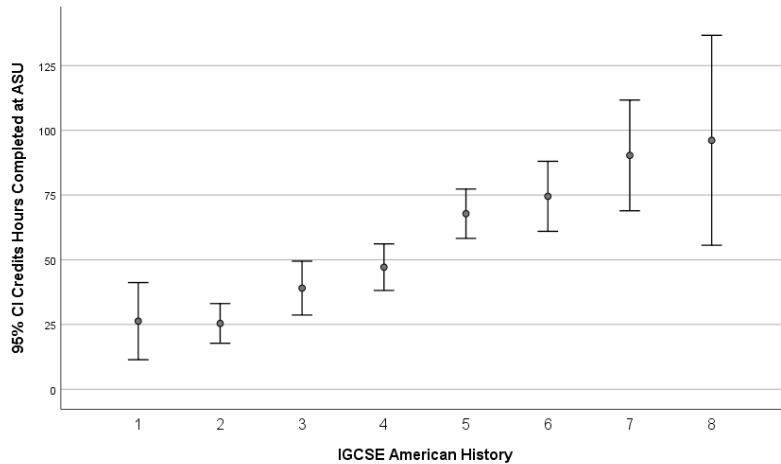
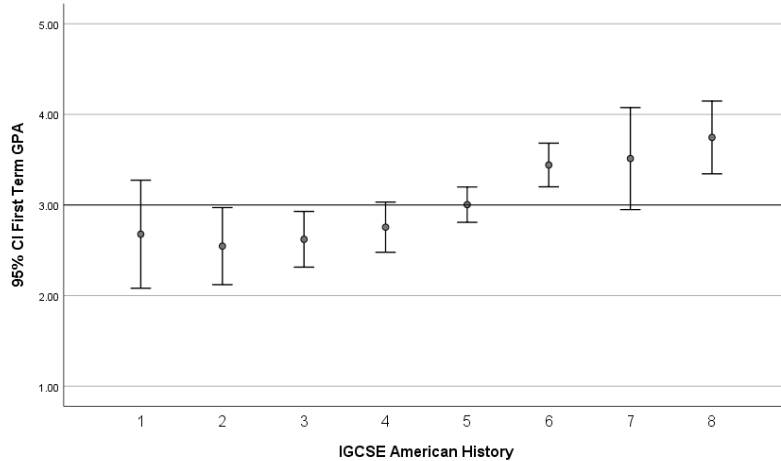
IGCSE students perform well on academic metrics associated with college readiness

- Cambridge students at ASU had **higher average SAT and ACT scores** compared to the national average
- Performance on several IGCSE subject exams positively correlated with SAT and ACT scores
- Findings suggest the IGCSE shares a similar level of rigor that can be used for judging academic aptitude

Correlation between IGCSE and SAT/ACT scores at ASU

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

Research on IGCSE and College Preparation in Arizona

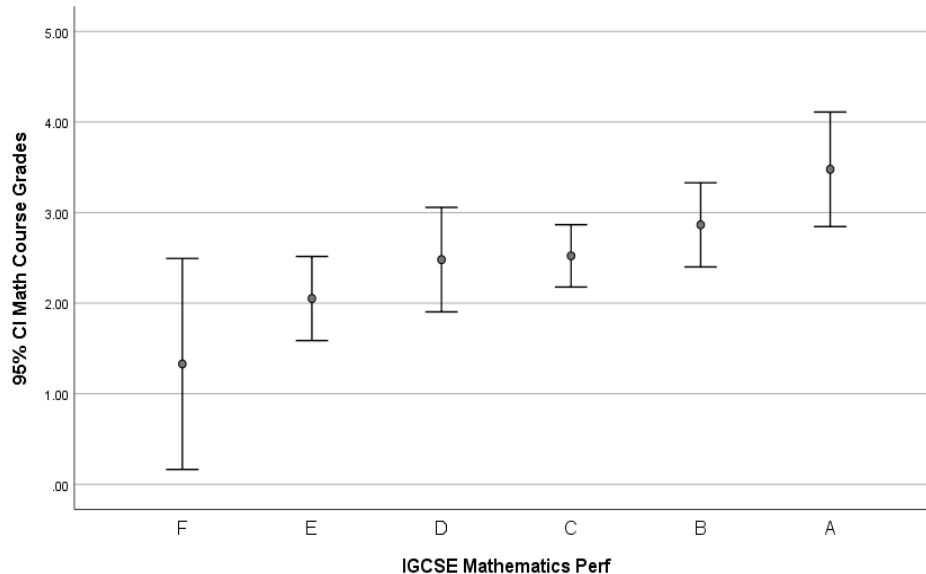


Numerical scores in the figures correspond to the following IGCSE grades:
1 = G, 2 = F, 3 = D, 4 = E, 5 = C, 6 = B, 7 = A, 8 = A*

IGCSE exam performance and high school GPA can predict first-year college success

- The combination of high school GPA and Grand Canyon Diploma subjects was a better predictor of first-year college outcomes than high school GPA alone
- **Performance on these combined metrics was a good predictor of credit hours completed, first semester GPA, and first year GPA at ASU**
- Some IGCSE subjects (American History, Chemistry, Mathematics) were particularly good predictors of first-year college outcomes

Research on IGCSE and College Preparation in Arizona



IGCSE math performance has a strong relationship with college math performance

- Generally students with strong IGCSE Mathematics performance also performed well in their ASU math courses
- This relationship was particularly true for the ASU courses MAT 170 (Precalculus) and MAT 270 (Calculus with Analytic Geometry I)
- IGCSE Mathematics can be a good indicator of students' likelihood to succeed in college math

Florida State University Study: Cambridge, IB and AP Student Performance

Key Findings on Freshman GPA

- Cambridge students earn on average:
 - higher GPAs than IB students.
 - equivalent GPAs to AP students.
- Cambridge students' freshmen year GPAs were statistically higher than IB students and equivalent to AP students.
- All three groups earned higher freshman year GPA compared to matched students who did not earn credit through an advanced program.

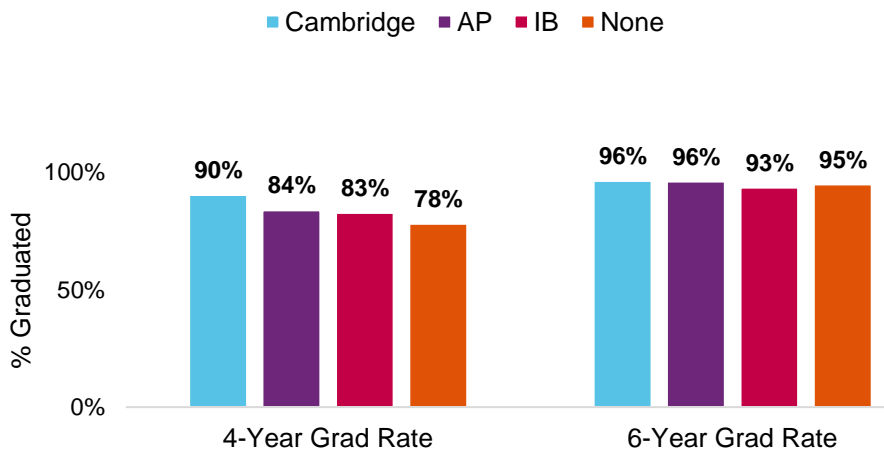
*controlling for race, gender and SAT score

Research on College Outcomes in Florida

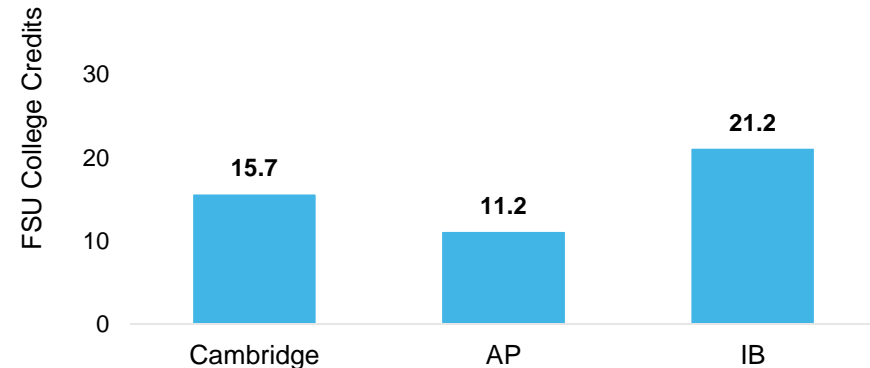
Cambridge students are succeeding at university, particularly participants of the AS/A Level program

- Cambridge A/AS Level students earn an average of 16 credits at Florida State University and have **a higher 4-year graduation rate compared to students from other programs**
- At FSU, 93% of Cambridge Hispanic students graduate in 4 years (compared to 82% of Hispanic students who earned credit via other programs)

FSU Graduation Rate by Credit Program



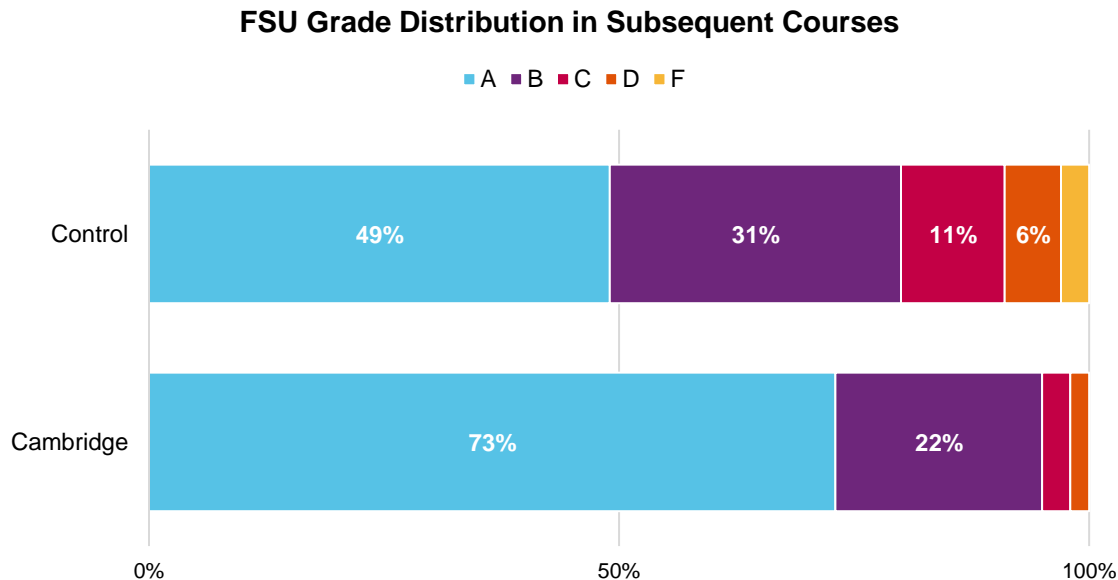
Average Credits Earned by Program



Research on Subsequent Course Performance in Florida

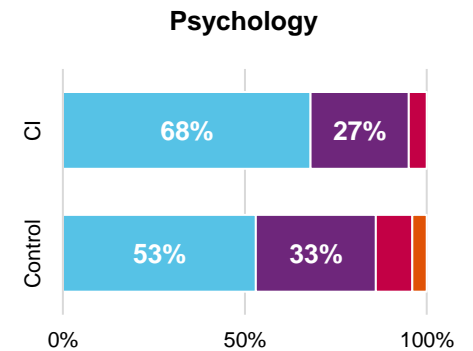
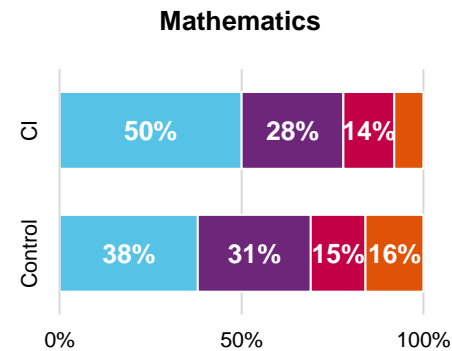
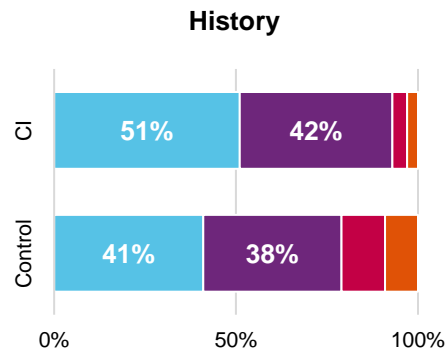
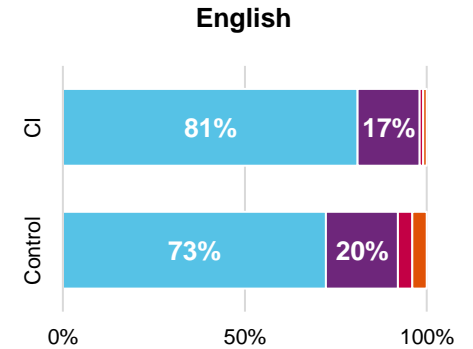
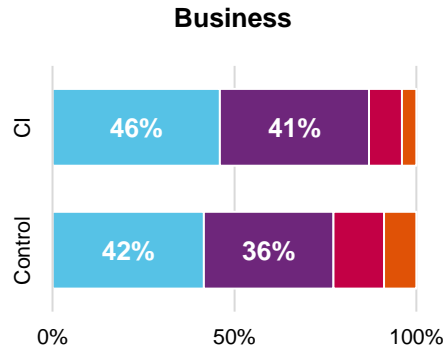
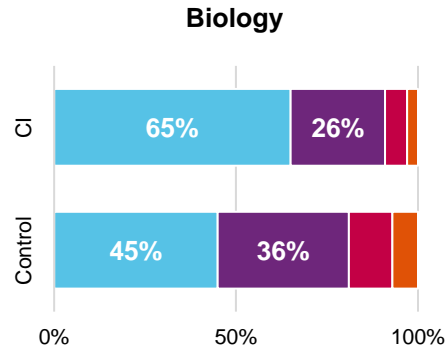
After receiving credit for entry-level courses, Cambridge students went on to succeed in their subsequent college courses

- Cambridge A/AS Level students have **higher pass rates in their subsequent courses** compared to the entire cohort at FSU
- Moreover, 95% of Cambridge students who achieved an E on their A/AS Level went on to earn an A or B in their subsequent course
- The trend held true across 6 subject areas (Biology, Business, English, History, Mathematics, and Psychology)



Research on Subsequent Course Performance in Florida

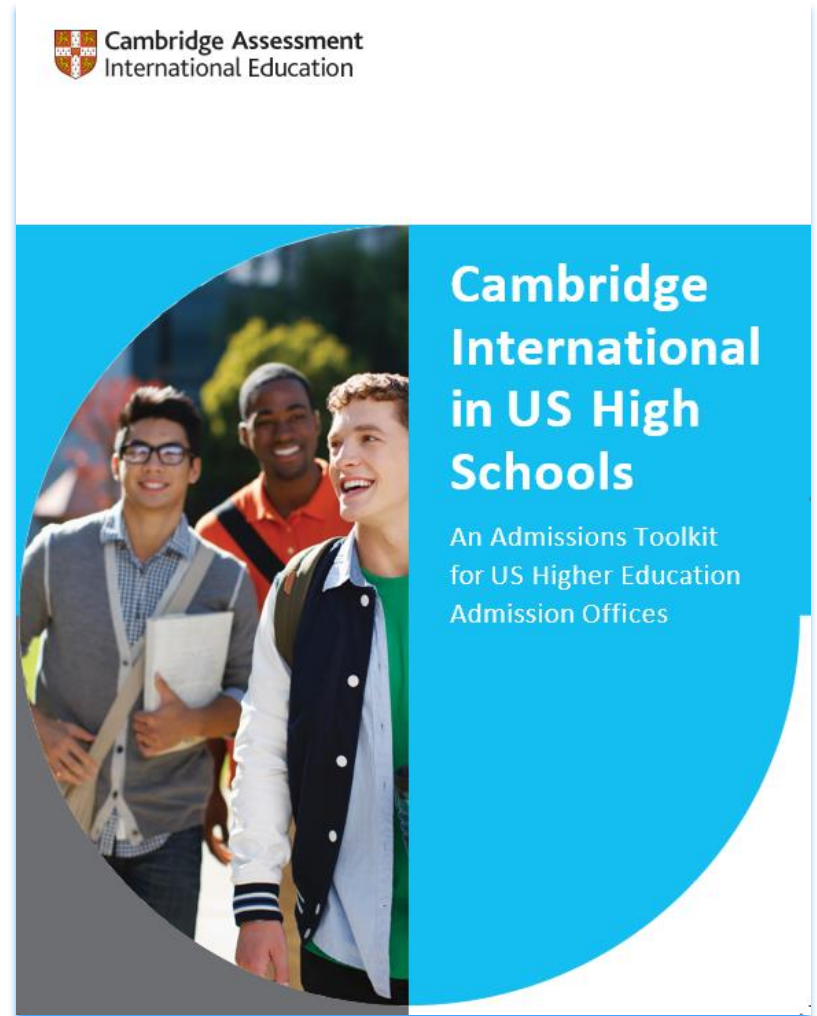
■ A ■ B ■ C ■ D/F



Admissions Resources



New Admission Resources



- Admissions Toolkit
- Admission-specific Web Pages

Admissions Toolkit

Why Cambridge matters in the US

Starting in 2015, we began an intentional outreach to underperforming schools across the US to partner on improving outcomes for their students. Like many colleges and universities, we think that the opportunity for higher education should be available to the whole of our society. Together, we can deliver on the promise to help close the opportunity gap and diversify your campuses while meeting the high standards of your faculty and institutions.



Serving a Diverse Population

Understanding the students and teachers that are created through our learner attributes is, of course, important. However, understanding our schools and communities is just as important. Cambridge schools range from small, rural high schools in Kentucky,

Mississippi, and South Carolina, to large urban school districts like Miami-Dade County (FL). Many of our schools are in underserved communities, with higher percentages of poverty. 93% of Cambridge International schools in the US are public schools.



Improving Secondary School Performance

If every child is to have an opportunity for success, every student must have a true opportunity to learn. To increase the achievement levels of minority and low-income students, we must focus on what really impacts education: high standards, a challenging and

engaging curriculum, development of good teachers, and assessments that truly measure learning. We invite you to review the outcomes in communities where Cambridge has positively impacted secondary school performance.



Emphasizing the Power of Writing

Our programs understand not only the importance of mastering content and course skills, as well as the importance of writing in all disciplines. Embedded in all of our coursework is an emphasis on writing and

developing the skills to be an effective writer. Our courses prepare students for writing at the college-level, and support our students in being good communicators both in writing and verbally.

Support from Cambridge

Cambridge International is here to serve as your partner in education. You are always welcome to contact us directly with any questions you may have. We also want to provide you with easily accessible information. You can find some important information below and a link to our resources page, which has the most up-to-date information.



Direct

Direct is a service which allows universities to verify students' paper transcripts. **NEW** We recently began sending digital transcripts to universities for US Students. We encourage all universities to create a Direct account, and opt-in for electronic results.



Secondary School Information

We know that recruiting students who are prepared to be successful at your institution is important for admission offices. We want you to be able to easily find Cambridge students around the US.



Recognitions Database

Cambridge International maintains a database of institution's credit policies. Many Cambridge students will search this database to understand where they might receive credit for their Cambridge examinations. We encourage you to review your policy to ensure it is the most current. If you would like assistance in developing or updating your institution's policy, we would be happy to assist.



Toolkit Resources

Follow the QR code to access digital resources which include the following:

- Grading equivalency chart
- Explanation of grades
- Sample transcripts
- Course content FAQs
- English as a Second Language CREF equivalencies...



Toolkit Webpage

[Home](#) > [Cambridge International in the USA](#) > [Toolkit for US admissions offices](#)

Toolkit for US admissions offices



This toolkit helps US admissions offices to evaluate and understand Cambridge students—both US-based and international. Learn about the value that Cambridge students bring to higher education in the US and get information on our programs and exams.

New research: Cambridge students excel in college

 Subsequent Course Performance at
Florida State University (PDF, 156KB)

“

The skills I've built helped me become used to working in teams, solving difficult problems, and using critical thinking. Being part of the Cambridge program really comes to life when you're able to solve bigger problems not just by yourself, but with a group of people and the support of the teachers.

Kevin, graduate of Juanita High School, WA

”



Why Cambridge matters in the US

Our goal is to help close the opportunity gap and diversify higher education while meeting the highest standards.

[Cambridge in the US](#)



Understanding Cambridge students

Our curriculum prepares students to be successful in higher education and employment by focusing on five key learner attributes and life skills.

[Cambridge learner attributes](#)



The Cambridge Program

Learn about Cambridge Advanced AS & A Levels, the AICE Diploma, and IGCSE. Review grading scales and grade comparison charts.

[Cambridge programs and exams](#)

- Toolkit Webpage with expanded sections relevant to understanding Cambridge
- Includes research studies, testimonials, and important tools and resources
- A Living document, that will be consistently updated with new information
- <https://www.cambridgeinternational.org/usa/admissions-toolkit/>



Cambridge Assessment
International Education

Thank you

Any questions?

James Bishop
James.bishop@cambridge.org

