Research on Cambridge’s Impact in US Schools and Universities

Dr. Katherine Chi – Data & Analytics Manager, North America
Dr. Matthew Kaye – School Implementation Manager, North America
Presenters

**Dr. Katherine Chi, Data and Analytics Manager - Cambridge - North America**

Oversees Cambridge’s U.S. data sharing and research program, including collaborations with school districts, universities, and education non-profits. Focused on research on programme efficacy and student outcomes.

**Dr. Matthew Kaye School Implementation Manager - Cambridge - North America**

Current work projects include supporting the fidelity of implementation at Cambridge’s K-8 centres and partnering with stakeholders to better understand federal and state accountability models.

Previously served as a Senior Leader for the School District of Lee County (FL) in the role of Director of Accountability, Assessment, and Research.
Session overview

In this session, researchers will highlight key findings from Cambridge’s US data and research activities, including post-secondary outcomes for students who participated in the Cambridge IGCSE and Advanced programmes in Florida and Arizona. The presentation will also examine case studies for Florida districts that have observed success after implementation of the Cambridge programme, and provide guidance on how schools and districts can use data and analytics to evaluate impacts of their programmes.

The session will close with a forecast of future research ambitions and an invitation to collaborate.
To start: questions for you

- What types of Cambridge data would help you in your work?
- What do you know about outcomes and impacts on learners who have participated in the Cambridge program (e.g., college success, progression to other rigorous programs, etc.)?
Completed Projects and Outcomes
A preview of our research

Cambridge’s role in scholarship programs opens access to college for Florida families

Graduates of the Cambridge program enroll at high rates at 4-year institutions

Cambridge students outperform their peers in their first year of college/university
Florida Bright Futures Scholarship Programme

**Florida Bright Futures**
Scholarship program for Florida residents that pays tuition for a Florida college or university based on high school academic achievement.

**Florida Medallion Scholar (FMS)**
Covers 75% of tuition and fees at a public institution.

**Florida Academic Scholar (FAS)**
Covers 100% of tuition and fees at a public institution.

**Standard Route**
- Graduate from Florida high school
- Minimum GPA of 3.5
- ACT Score: 29 or SAT Score: 1340
- 100 Hours of Volunteer or Paid Work

**National Merit Program**
- Qualify as National Merit Finalists or Scholars
- 100 Hours of Volunteer or Paid Work

**International Baccalaureate Program**
- Complete IB Diploma
- 100 Hours of Volunteer or Paid Work

**Cambridge International Program**
- Complete AICE Diploma
- 100 Hours of Volunteer or Paid Work
Florida Bright Futures Scholarship Programme

AICE Diploma
Est. Value: $28,000
(4 Years of College Tuition)

University Course Credits
Est. Value: $3,150
(Avg 21 credits, $150 per credit)

AICE Diploma represents an estimated value of $31,150 for each Florida student
Florida Bright Futures Scholarship Programme

“Florida has consistently decreased the availability of BF over the last decade alone by raising eligibility thresholds [for SAT scores] each year… These actions cut the proportion of all high school students in the state who would be eligible for a BF award nearly in half: from 38% in 2010-11 to 20% in 2016-17.

- Gurantz & Odle 2022
The AICE Diploma has opened access to postsecondary study for Florida students

- About 2/3 of students qualified for FAS solely based on AICE Diploma
- 80% of Black and 70% of Hispanic Cambridge students qualified for the FAS solely based on the AICE Diploma
Postsecondary Enrolment (National Student Clearinghouse)

Enrollment by Institution Type and Admit Year

<table>
<thead>
<tr>
<th>Year</th>
<th>2-Year Public</th>
<th>2-Year Private</th>
<th>4-Year Public</th>
<th>4-Year Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-15</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>2015-16</td>
<td>82%</td>
<td>9%</td>
<td>81%</td>
<td>8%</td>
</tr>
<tr>
<td>2016-17</td>
<td>9%</td>
<td>9%</td>
<td>83%</td>
<td>9%</td>
</tr>
<tr>
<td>2017-18</td>
<td>82%</td>
<td>11%</td>
<td>81%</td>
<td>9%</td>
</tr>
<tr>
<td>2018-19</td>
<td>9%</td>
<td>11%</td>
<td>81%</td>
<td>10%</td>
</tr>
</tbody>
</table>

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 students typically enroll at 4-year institutions and have comparable completion rates as national rates

- Compared to national enrollment trends, a much higher percentage of Cambridge students attend a Public 4-Year as their first institution
- For 4-year institutions, Cambridge’s 6 year completion rates are similar to national completion rates
Cambridge students have been successful at Florida State University, particularly graduates of the Cambridge Advanced programme

- 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

<table>
<thead>
<tr>
<th></th>
<th>Cambridge</th>
<th>AP</th>
<th>IB</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Year Grad Rate</td>
<td>90%</td>
<td>84%</td>
<td>83%</td>
<td>78%</td>
</tr>
<tr>
<td>6-Year Grad Rate</td>
<td>96%</td>
<td>96%</td>
<td>93%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Average Credits Earned by Program

<table>
<thead>
<tr>
<th></th>
<th>FSU College Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambridge</td>
<td>15.7</td>
</tr>
<tr>
<td>AP</td>
<td>11.2</td>
</tr>
<tr>
<td>IB</td>
<td>21.2</td>
</tr>
</tbody>
</table>
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, 92% 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)
Subsequent course performance at FSU

Cambridge Schools Conference, Orlando, 23-24 June 2023
Creating a positive environment for academic success
#camschoolsconf
Pause: discussion and questions

- Do you have any questions about the research?
- What additional data or studies would you like to see Cambridge pursue?
Ongoing and Future Projects
Key Question: Does the Cambridge Advanced program adequately prepare international and domestic students to succeed in U.S. colleges and universities?

- Key metrics: first year performance (GPA, retention, course/credit completion), graduation
- Also: performance in specific courses and course sequences related to Cambridge assessments
- Currently working with 730 international schools with Cambridge Advanced students
- Institutions interested in engaging in project:
  - Northeastern University
  - University of Georgia
  - Arizona State University
  - Washington State University
Recognitions and credit database

Cambridge Assessment International Education

Website: https://www.cambridgeinternational.org/recognition-search/
Or search: “Cambridge International Credit and Recognition”
Recognitions and credit database

- Total Institutions with Policies: 916
- Total Cambridge Policy Statements: 1,429
- Cambridge added or updated nearly 100 higher education policies in 2022

States with the Highest Numbers of Policies:
- Florida: 156
- California: 128
- New York: 111
- North Carolina: 98
- Washington: 76
Recognitions and credit database

A/AS Level Syllabi with Highest Policy Counts

<table>
<thead>
<tr>
<th>Syllabus</th>
<th>Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>9701 - CHEMISTRY</td>
<td>174</td>
</tr>
<tr>
<td>9700 - BIOLOGY</td>
<td>163</td>
</tr>
<tr>
<td>9618 - COMPUTER SCIENCE</td>
<td>149</td>
</tr>
<tr>
<td>9709 - MATHEMATICS</td>
<td>149</td>
</tr>
<tr>
<td>9990 - PSYCHOLOGY</td>
<td>145</td>
</tr>
<tr>
<td>9696 - GEOGRAPHY</td>
<td>144</td>
</tr>
<tr>
<td>9708 - ECONOMICS</td>
<td>144</td>
</tr>
<tr>
<td>9706 - ACCOUNTING</td>
<td>142</td>
</tr>
<tr>
<td>9609 - BUSINESS</td>
<td>137</td>
</tr>
<tr>
<td>9702 - PHYSICS</td>
<td>135</td>
</tr>
<tr>
<td>9093 - ENGLISH LANGUAGE</td>
<td>133</td>
</tr>
<tr>
<td>9479 - ART AND DESIGN</td>
<td>131</td>
</tr>
<tr>
<td>9695 - LITERATURE IN ENGLISH</td>
<td>127</td>
</tr>
<tr>
<td>9699 - SOCIOMETRY</td>
<td>127</td>
</tr>
<tr>
<td>9693 - MARINE SCIENCE</td>
<td>122</td>
</tr>
<tr>
<td>9626 - INFORMATION TECHNOLOGY</td>
<td>112</td>
</tr>
<tr>
<td>9483 - MUSIC</td>
<td>110</td>
</tr>
</tbody>
</table>

Institutions award Cambridge credit across a variety of subject areas, including humanities, arts, and STEM.

Note: Policy counts represent a sample of U.S. institutions and do not include "general" statements.

Nearly 2/3 of institutional policies are for grades earned at the E.

Minimum AS/A Level Grade in Policies for College Credit

- A: 2%
- B: 5%
- C: 19%
- D: 5%
- E: 68%

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In 2021, Cambridge launched the **U.S. Grade Transcript Service** as part of the U.S. Data & Systems Project.

- Enables students to request and deliver a complete record of their A Level and AS Level grades to U.S. universities.
- Universities can opt to receive paper transcripts or electronic bulk grade files (in CSV format).

- Service also introduced **new student portal**, where students can create a Cambridge account with identity verification.
- Currently **limited to U.S.** students/universities (planned expansion to international students in Phase 4 of project).

View Transcript Service: [https://gradetranscripts.cambridgeinternational.org/](https://gradetranscripts.cambridgeinternational.org/)
In 2024, Cambridge plans to launch a **new data and reporting platform**

- First offered to U.S. schools and districts
- First access for: Exam Officers, teachers, school and district administrators
- Includes data upload features to generate reports for teachers/classrooms and student subgroups (gender, race/ethnicity, etc.)
- Will feature analysis and report generation, including data/file exporting
- Future phases of the platform will include an **AICE Diploma** tracker (2025 and beyond)
Forecasting Ahead: Research Interests
Seeking partnership in research

- There are still several areas of interest we would like to better understand.

- For each of these, we are open to collaborating with schools/districts who may want to explore efficacy and impact of Cambridge at their centres:
  - The Cambridge Pathway
  - The Cambridge Learner Attributes
  - English as a Second Language
Goal: To better understand the longitudinal associations of the Cambridge Pathway for learners via common measurable learning outcomes.
School district of Lee County (FL)

- School District of Lee County (FL): A large, diverse (100,000+ students) district in SW Florida
- Our first Demonstration District

- Implemented Cambridge pathways across all 15 high schools and all 20 middle schools between 2019-2020 and 2020-2021
- Has demonstrated increased participation, acceleration, and positive student learning outcomes associated with participation in Cambridge courses
Fostering the Cambridge Learner Attributes

- The **Cambridge Learner Attributes** – the learning habits students need to be successful in school, higher education, the workplace and life in general: **Confident, Responsible, Reflective, Innovative, Engaged**

- From a school leader’s perspective, how does our curriculum foster these attributes in learners?

- Question for Participants: **How might the Learner Attributes align with schoolwide initiatives you currently support?**
# The Cambridge Learner Attributes

<table>
<thead>
<tr>
<th>Cambridge learners</th>
<th>Cambridge teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Confident</strong></td>
<td><strong>Confident</strong> in teaching their subject and engaging each student in learning. Cambridge teachers know their subject well and know how to teach it. They seek to understand their students and their educational needs. They strive to communicate a love of learning and to encourage students to engage actively in their own learning.</td>
</tr>
<tr>
<td>Confident in working with information and ideas – their own and those of others. Cambridge learners are confident, secure in their knowledge, unwilling to take things for granted and ready to take intellectual risks. They are keen to explore and evaluate ideas and arguments in a structured, critical and analytical way. They are able to communicate and defend views and opinions as well as respect those of others.</td>
<td></td>
</tr>
<tr>
<td><strong>Responsible</strong></td>
<td><strong>Responsible</strong> for themselves, responsive to and respectful of others. Cambridge learners take ownership of their learning, set targets and insist on intellectual integrity. They are collaborative and supportive. They understand that their actions have impacts on others and on the environment. They appreciate the importance of culture, context and community.</td>
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<td><strong>Reflective</strong></td>
<td><strong>Reflective</strong> as learners, developing their ability to learn. Cambridge learners understand themselves as learners. They are concerned with the processes as well as the products of their learning and develop the awareness and strategies to be life-long learners.</td>
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<tr>
<td><strong>Innovative</strong></td>
<td><strong>Innovative</strong> and equipped for new and future challenges. Cambridge teachers are themselves learners, seeking to build on and develop their knowledge and skills through a virtuous circle of reflection on practice – involving research, evaluation and adaptation. They support students to become independent and reflective learners.</td>
</tr>
<tr>
<td>Innovative and equipped for new and future challenges. Cambridge learners welcome new challenges and meet them resourcefully, creatively and imaginatively. They are capable of applying their knowledge and understanding to solve new and unfamiliar problems. They can adapt flexibly to new situations requiring new ways of thinking.</td>
<td></td>
</tr>
<tr>
<td><strong>Engaged</strong></td>
<td><strong>Engaged</strong> intellectually, professionally and socially, ready to make a difference. Cambridge teachers are passionate about learning within and beyond the classroom, sharing their knowledge and skills with teachers in the wider educational community.</td>
</tr>
<tr>
<td>Engaged intellectually and socially, ready to make a difference. Cambridge learners are alive with curiosity, embody a spirit of enquiry and want to dig more deeply. They are keen to learn new skills and are receptive to new ideas. They work well independently but also with others. They are equipped to participate constructively in society and the economy – locally, nationally and globally.</td>
<td></td>
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</table>
Impacts of English as a second language

- Impact of P/LS English-Second Language toward the development of Multilanguage Learners (ML/ELL)
  - Many of our partners are seeking supportive approaches for their ML/ELL students
  - Using grounded controls, can we measure successes on student learning outcomes associated with these curricula?

- Question for Participants: What would you like to know about these courses in terms of their “fit” within your curriculum approach?
For our participants, what research initiatives would you like to explore?

Possibilities:
- Curriculum
- Student Learning Outcomes
- Associations with other State/Federal Indicators
- Student Attributes/Characteristics
- Teacher Development
Thank you
Any questions?
Your feedback

- Please let us know your views on this session

- Scan the QR code and share your feedback with us

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Getting in touch with Cambridge is easy

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