

Program Update

Kentucky Board of Education
December 1, 2021

- College Readiness Program
- Access to Algebra
- Computer Science Initiatives



an initiative of Kentucky Science and Technology Corporation

AdvanceKentucky Staff

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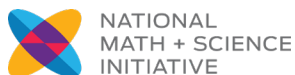
Program Support

Terry Samuel, KSTC President

Steve Pelphrey, Chief Financial Officer

125+ Kentucky teachers

Who We Are
Staff, Support, and Partnerships



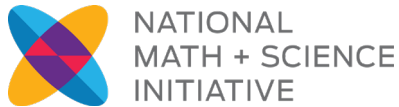
Mission

To create opportunities for all Kentucky students to have access to and success in rigorous coursework, particularly among populations traditionally underrepresented in these courses, enabling them to pursue advanced college and career opportunities.

College Readiness Program (AP [®])	Computer Science Initiatives	Access to Algebra
<p>Began 2008</p> <p>Serves Grades 9-12</p> <p>Math, science, and English</p>	<p>Began 2016</p> <p>Serves Grades K-12</p>	<p>Began 2017</p> <p>Serves Grades 6-8</p>
<p>To Date</p> <p>Schools: 135</p> <p>Teachers: 1,067*</p> <p>Enrollments: 101,683</p>	<p>To Date</p> <p>Schools: 122</p> <p>Teachers: 269*</p> <p>Enrollments: 32,671</p>	<p>To Date</p> <p>Schools: 43</p> <p>Teachers: 338</p> <p>Enrollments: 16,903</p>

Collectively, these programs will support **494** teachers and **11,923** students in the 2021-22 school year.

**An additional 4,373 teachers have participated in professional development through either Code.org's Computer Science Fundamentals workshops or Laying the Foundation training.*

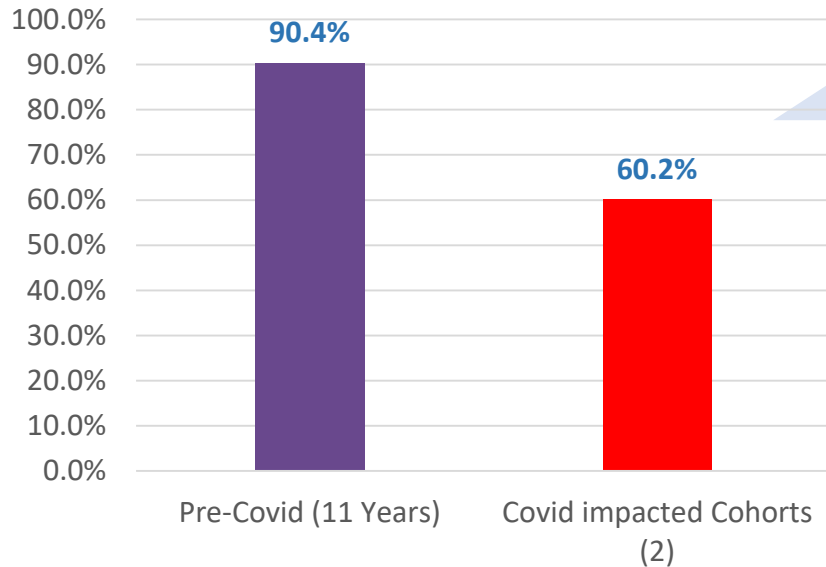


The NMSI College Readiness Program supports improvements in earning qualifying scores (QS) of 3, 4, or 5 (on a 5-point scale) on national AP[®] math, science, and English exams, which may earn college credit.



First Year Growth

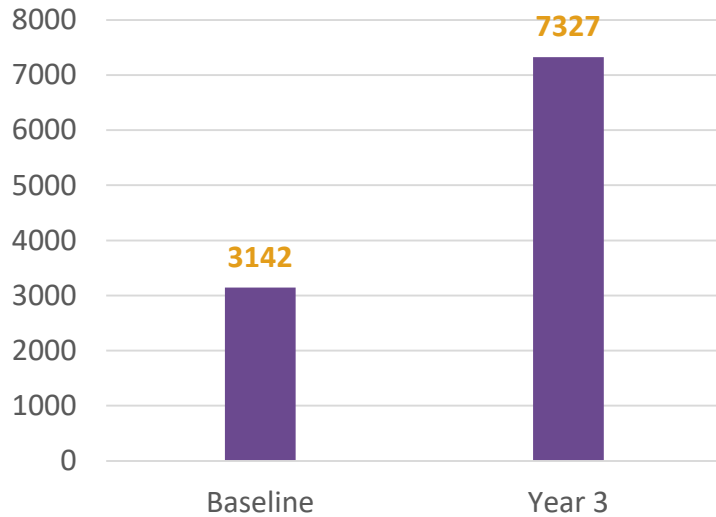
% Increase in the number of new AP MSE qualifying scores



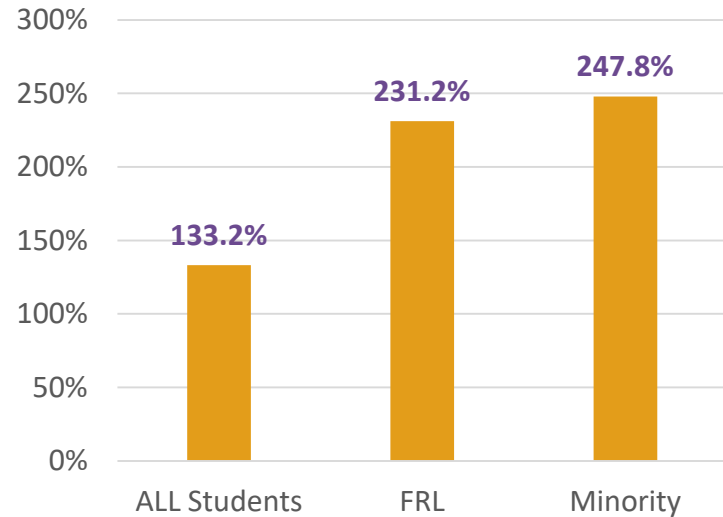
Source: AdvanceKentucky

Overall, compared to Pre-Covid years, the percentage of qualifying scores increased by 11% in 2020-21 but the percentage of students enrolled in an AP course and taking the exam decreased by **19.5%**. Low-income student participation decreased by **24.5%** and minority student participation decreased by **40.4%**.

Three Year Increase in the Number of Qualifying AP MSE Scores



Three Year Percent Increase in AP MSE Qualifying Scores

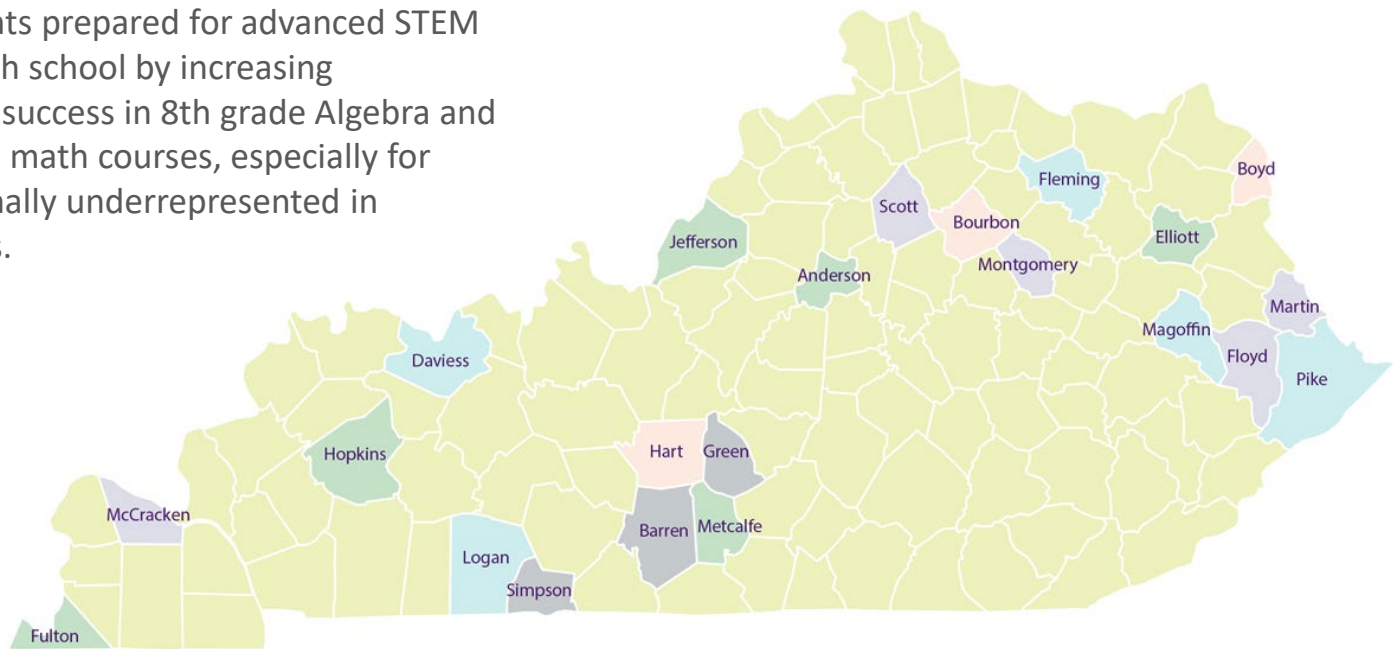


Source: AdvanceKentucky



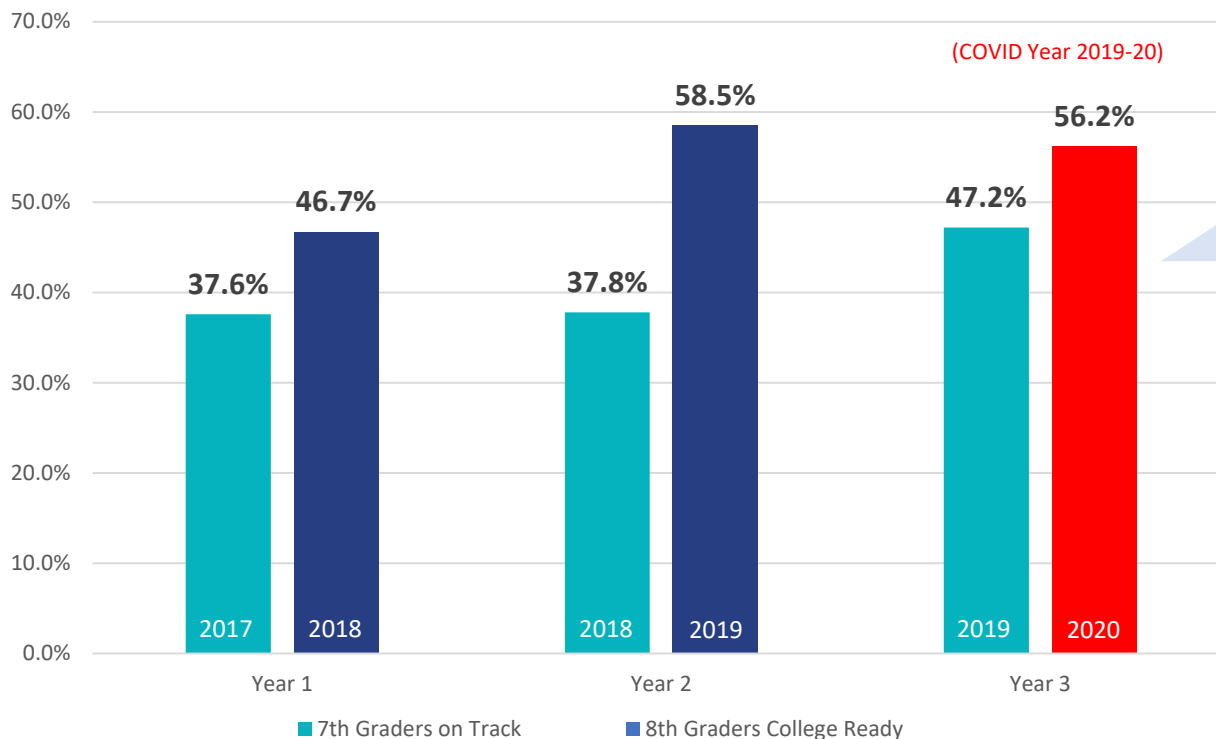
Access TO Algebra

Access to Algebra’s mission is to increase the number of students prepared for advanced STEM coursework in high school by increasing participation and success in 8th grade Algebra and other accelerated math courses, especially for students traditionally underrepresented in advanced courses.



Student Growth from 7th to 8th

Based on Cohort One PSAT 8/9 Performance

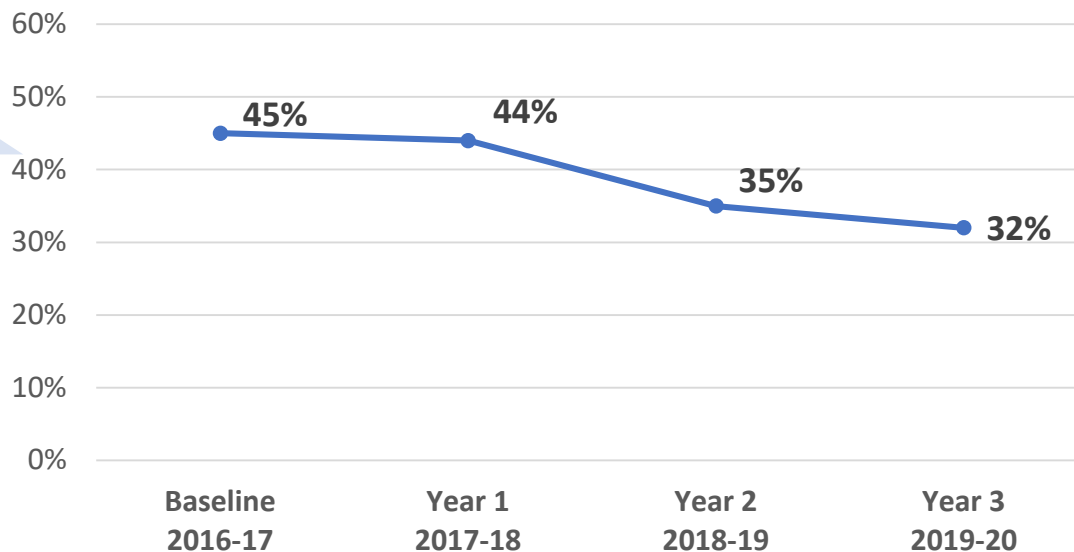


Despite the slight decline in Year 3, there was a **20.3%** increase from Year 1 to Year 3 in the percent of 8th graders meeting college readiness benchmark. Similarly, the percent increase of 7th graders on track is **25.5%**.

Source: AdvanceKentucky and College Board

From baseline to Year 3, there was a **29%** decrease of the percentage of students not on track for College Readiness. This data is comparable to novice reduction.

Percentage of 8th Grade Students Not on Track to Meet College Readiness Benchmark



Source: AdvanceKentucky and College Board

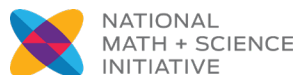
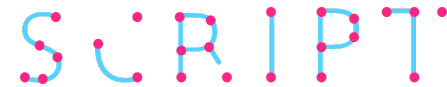


AdvanceKentucky

an initiative of Kentucky Science and Technology Corporation

Our mission is to make computer science education available for all K-12 students in Kentucky by:

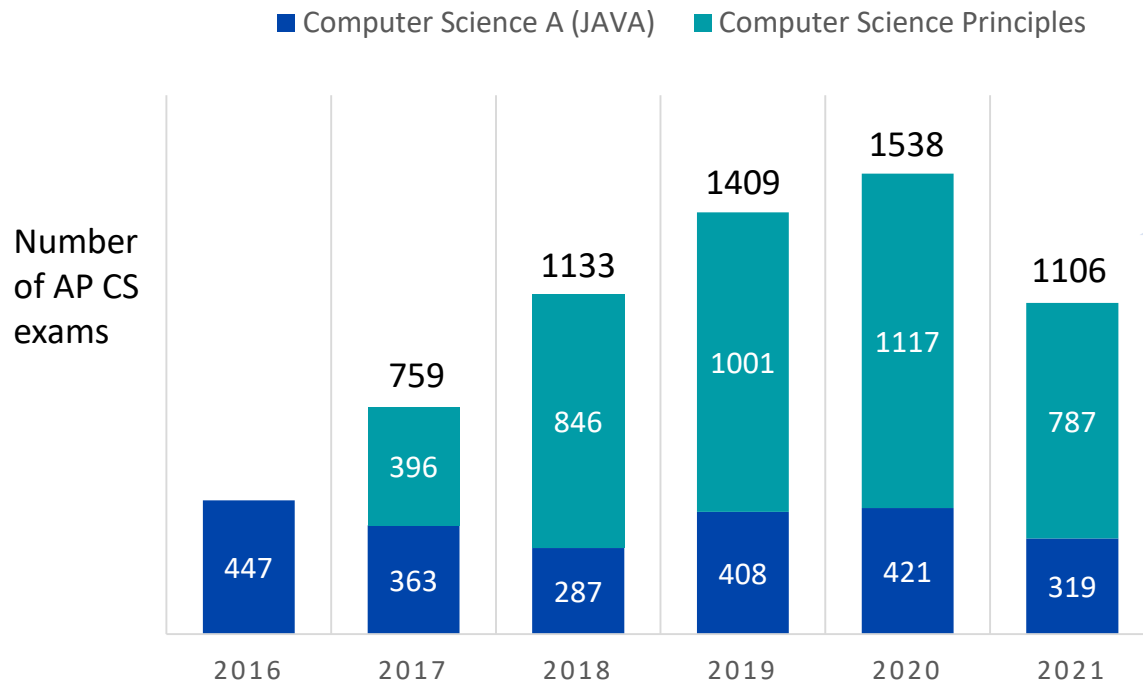
- Being a hub for computer science planning, advocacy and implementation
- Providing meaningful professional learning opportunities for teachers
- Encouraging students and teachers to pursue professional computer science industry certifications
- Partnering with school districts to create and implement robust computer science plans



Computer Science Initiatives

Statewide Growth of AP Computer Science (Public high schools, all students)

Number of AP CS Exams (Public)

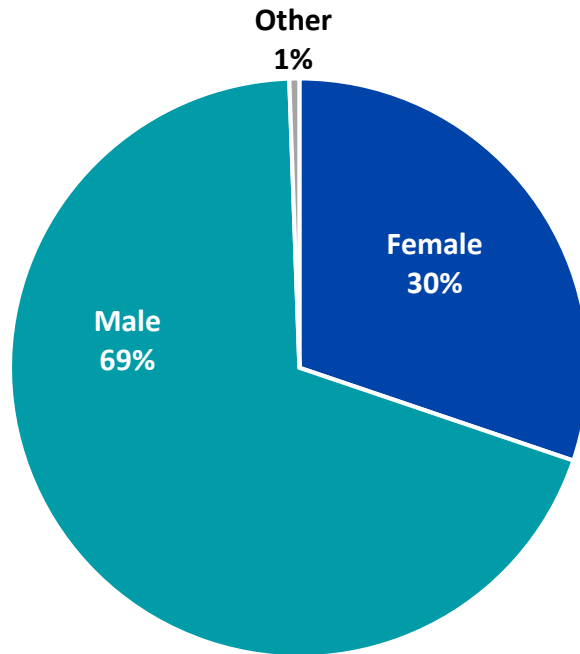


From 2016 to 2020 there has been a 244% increase in the number of students taking AP CS exams, notable in this time period was the introduction of the AP CS Principles exam in 2017. There was a 39% drop in the number of exams from 2020 to 2021.

Source: KDE Open House and College Board

Computer Science Initiatives

Gender Breakdown of 2020 AP CS Exams (Public high schools, all students)



AP CS Exam Taken by Gender

Source: KDE Open House and College Board

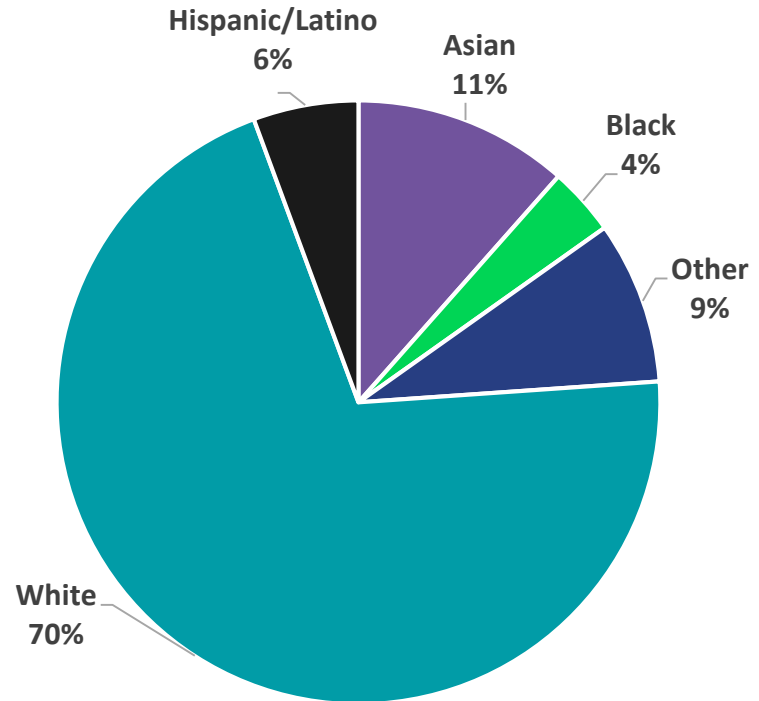
While the percentage of female students taking AP CS exams has remained close from 2016 to 2020, the number of female students taking AP CS exams has increased from **112** to **540** during that time period, an increase of **382%**.

Computer Science Initiatives

Ethnicity Breakdown of 2020 AP CS Exams (Public high schools, all students)

Percent Growth of AP CS Exam Takers from 2016 to 2020

- Asian - 195%
- Black - 613%
- Hispanic/Latino - 487%
- White - 222%
- Other - 518%



AP CS Exams Taken by Ethnic Group

Source: KDE Open House and College Board



Thank you!
Questions?

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Advancekentucky.com

