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Cohort Announcement and Program Update

Kentucky Board of Education Meeting

Frankfort, KY

August 2, 2018

KENTUCKY SCIENCE & TECHNOLOGY CORPORATION | KSTC

NATIONAL MATH + SCIENCE INITIATIVE

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Programs

Advanced Placement

Supports grades 6-12 pre-AP and AP Math, Science and English courses to increase AP participation and success

Middle School Math

Supports grades 6-8 math teachers to increase the number of students meeting math benchmark

Computer Science

Supports CS education in K-12 classrooms through Code.org training as part of the Kentucky CS Expansion Initiative

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Advanced Placement
Elements of Success

NATIONAL MATH + SCIENCE INITIATIVE

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.

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Advanced Placement
Cohort 11 High Schools

Cohort 11 Profile:

- 4,100 Students
- 64% Low-income
- 14% Minority
- 1200 Projected AP MSE Enrollments

- Elliott County
- Frederick Douglass High School
- Morgan County
- Rowan County
- Wayne County

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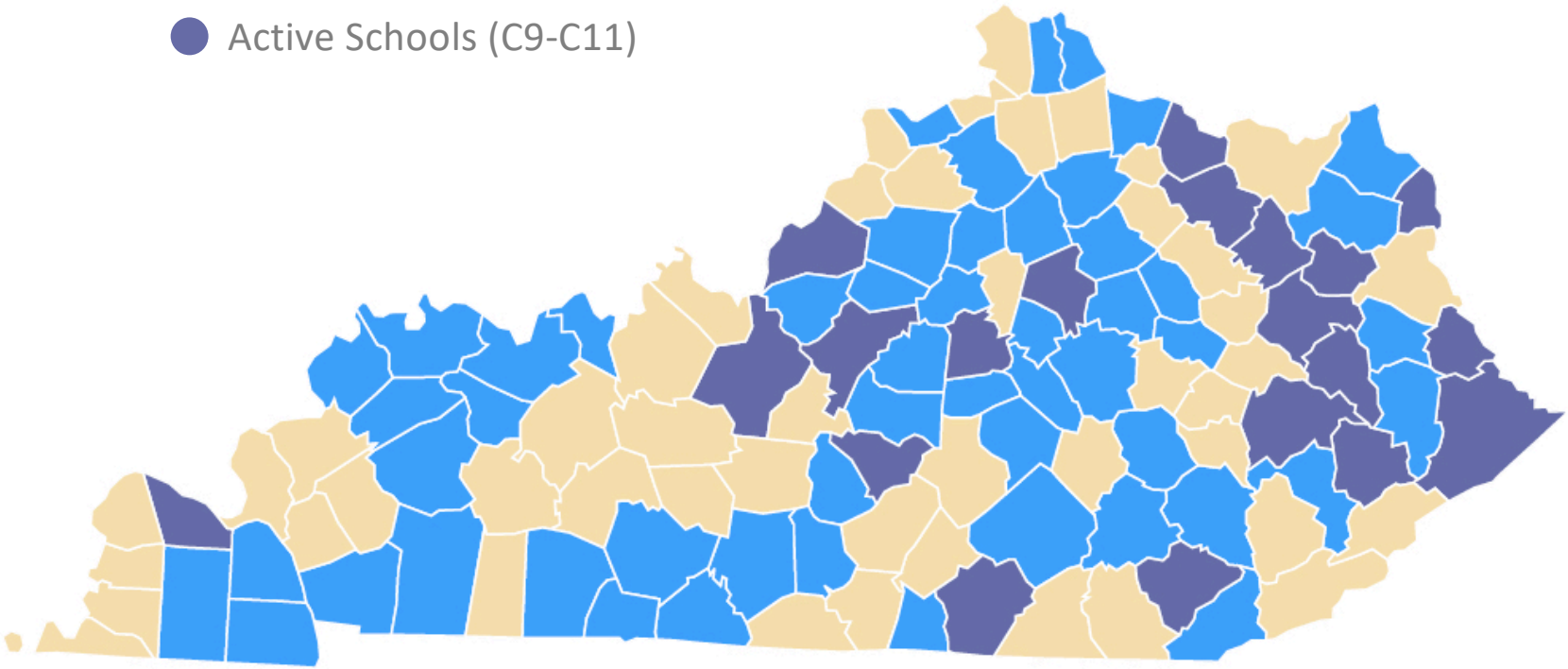
Advanced Placement
124 Public High Schools

- Alumni Schools (C1-C8)
- Active Schools (C9-C11)



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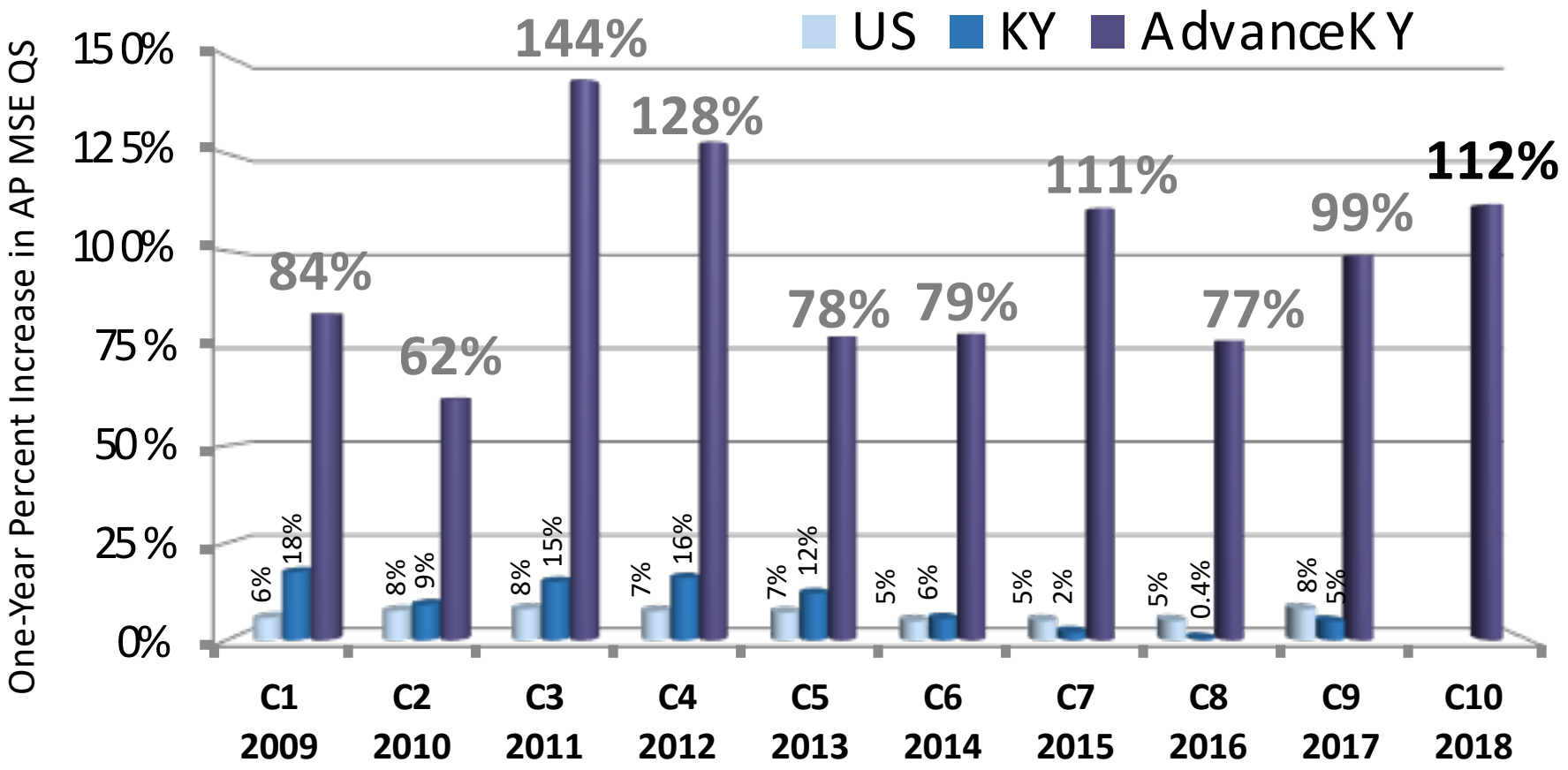
Advanced Placement

2018 Performance

First-Year Percent Increase



Source: College Board

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2018 Performance
Three-Year Growth: Cohorts 1-7

Cohorts 1-7	MSE QS: All Students	MSE QS: FRL Students	MSE QS: Minority Students
Baseline	2513	308	83
Year 3	6387	1255	257
% Change	*154.2%*	***307.5%***	***209.6%***

Source: College Board

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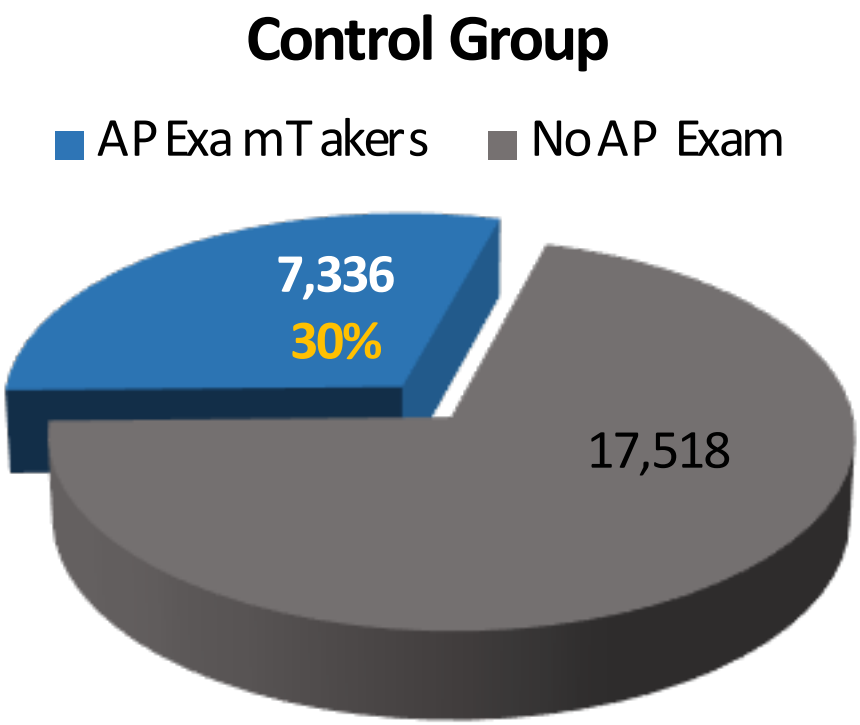
2018 Performance
Longitudinal Report: 2012 through 2015

Control Group



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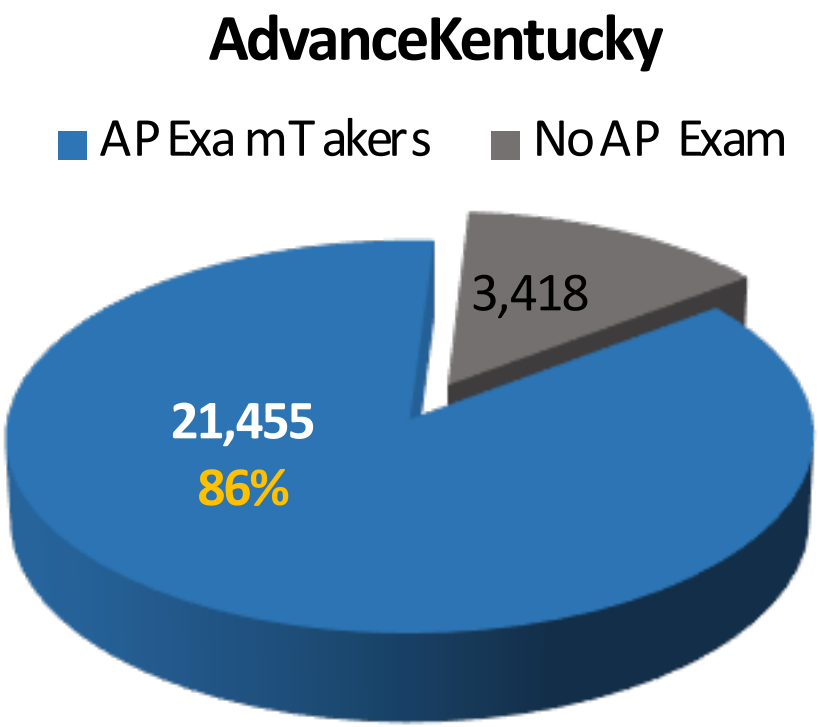

Source: Kentucky Center for Education and Workforce Statistics

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Advanced Placement

2018 Performance Longitudinal Report: 2012 through 2015

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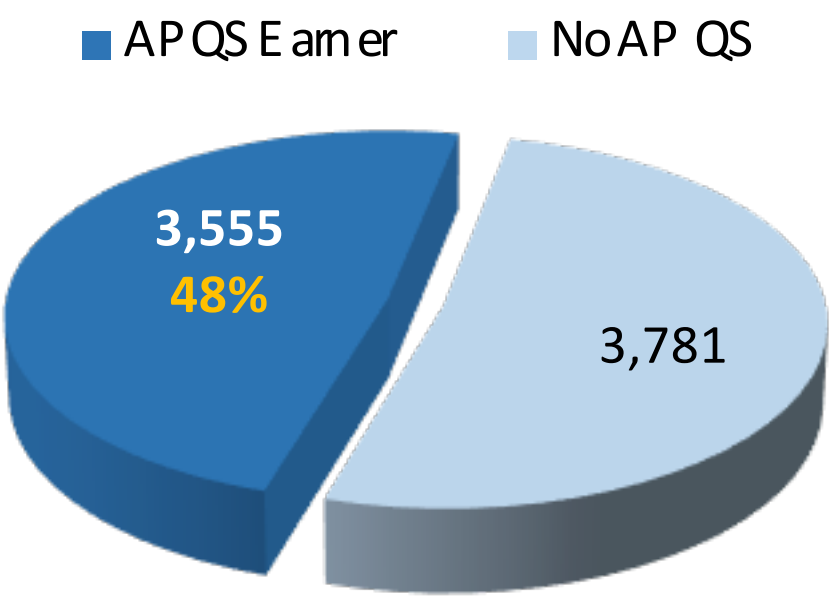

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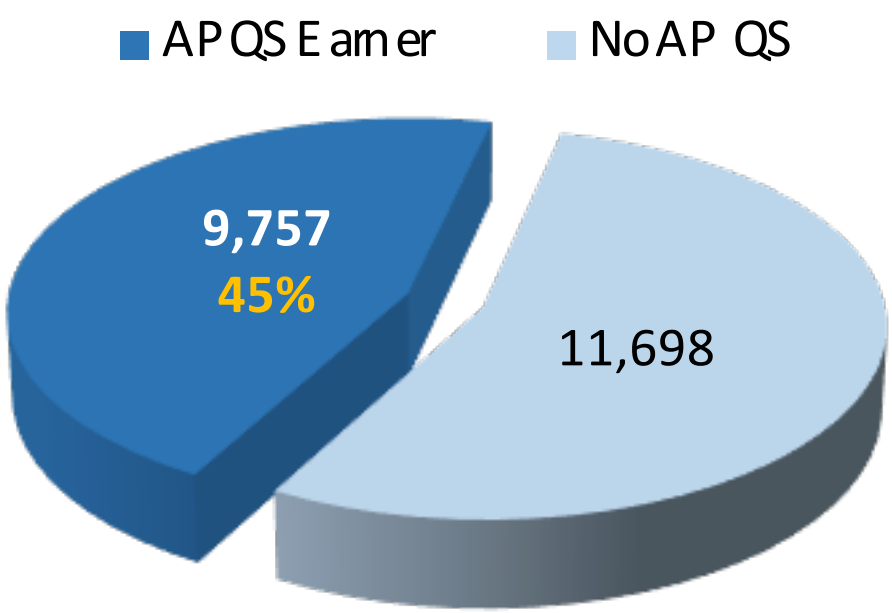

Source: Kentucky Center for Education and Workforce Statistics

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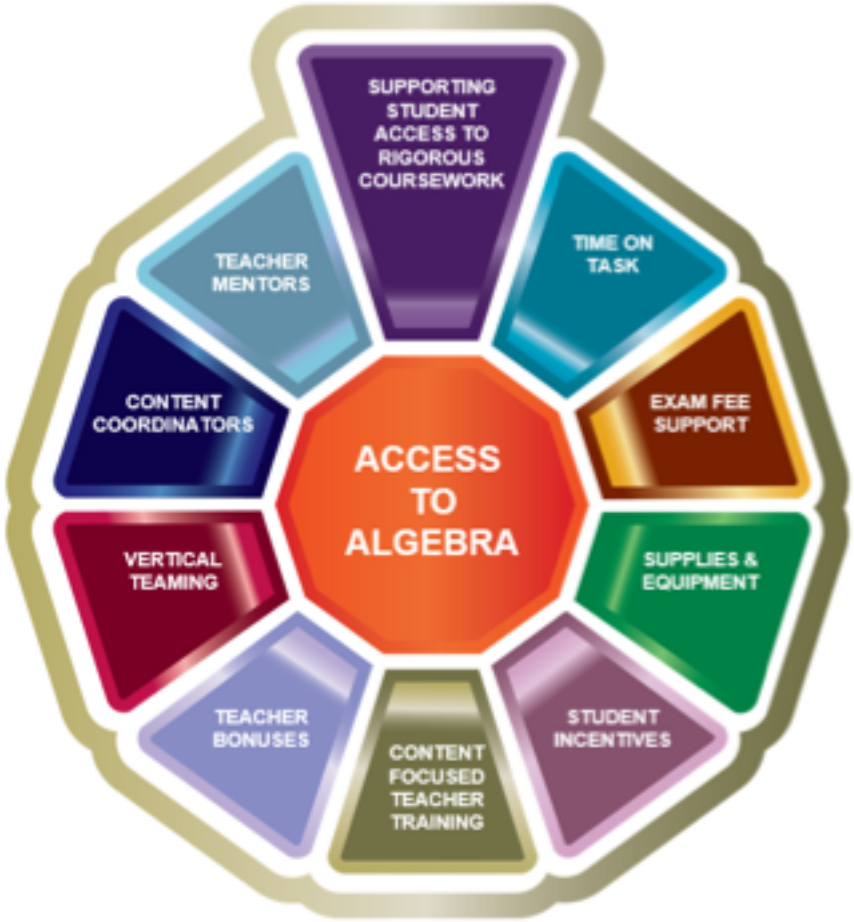
Middle School Math
Access to Algebra

The Middle School Math Program supports improvements in students meeting 8th grade math benchmark on PSAT 8/9 better preparing them for advanced math and science coursework in high school.



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Middle School Math
Cohort 2 Middle Schools

Cohort 2 Profile:

- 3,422 Students
- 71% Low-income
- 17% Minority

- Allen Elementary (Floyd)
- Betsy Layne Elementary (Floyd)
- Duff Allen Central (Floyd)
- James D. Adams Middle School (Floyd)
- John M. Stumbo Middle School (Floyd)
- South Floyd Middle School (Floyd)
- Martin County Middle School
- McNabb Middle School (Montgomery)
- Paducah Middle School
- Georgetown Middle School (Scott)

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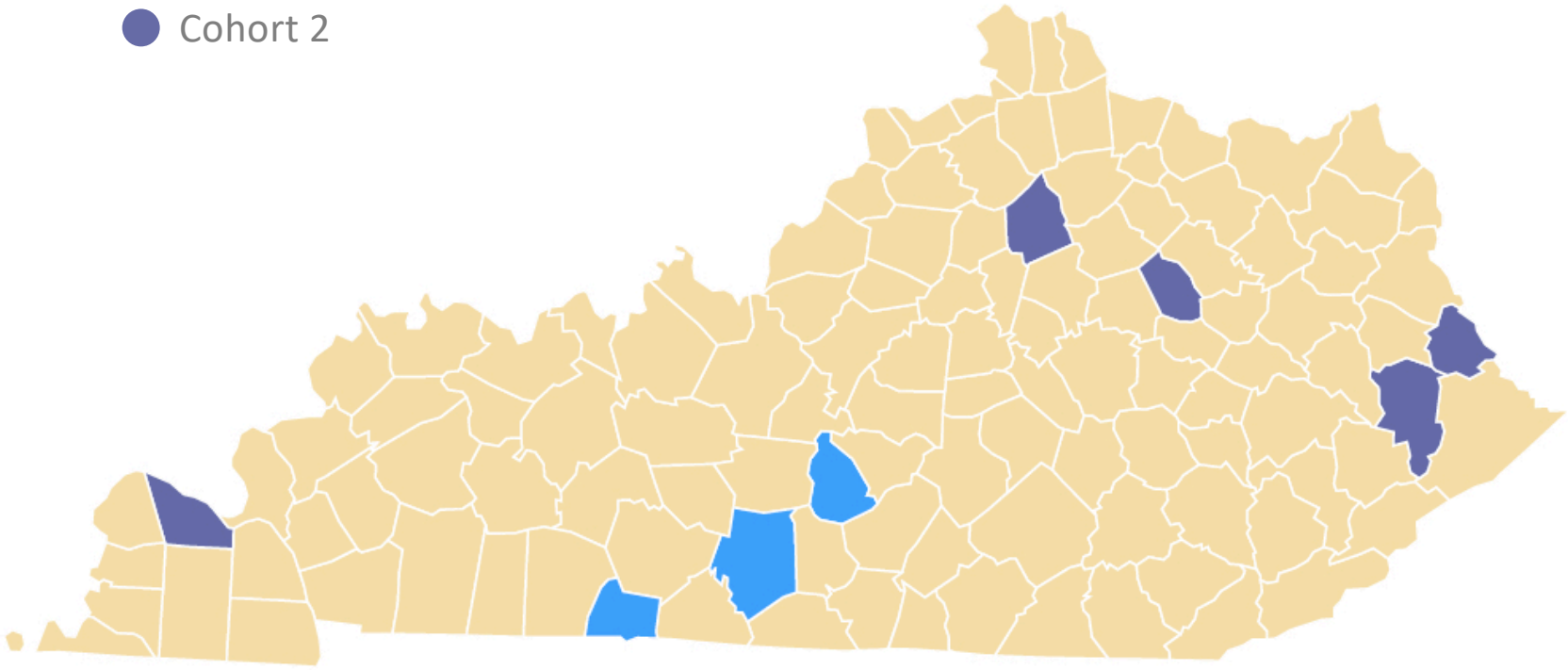
Middle School Math
13 Kentucky Middle Schools

- Cohort 1/Pilot (2017-2018)
- Cohort 2



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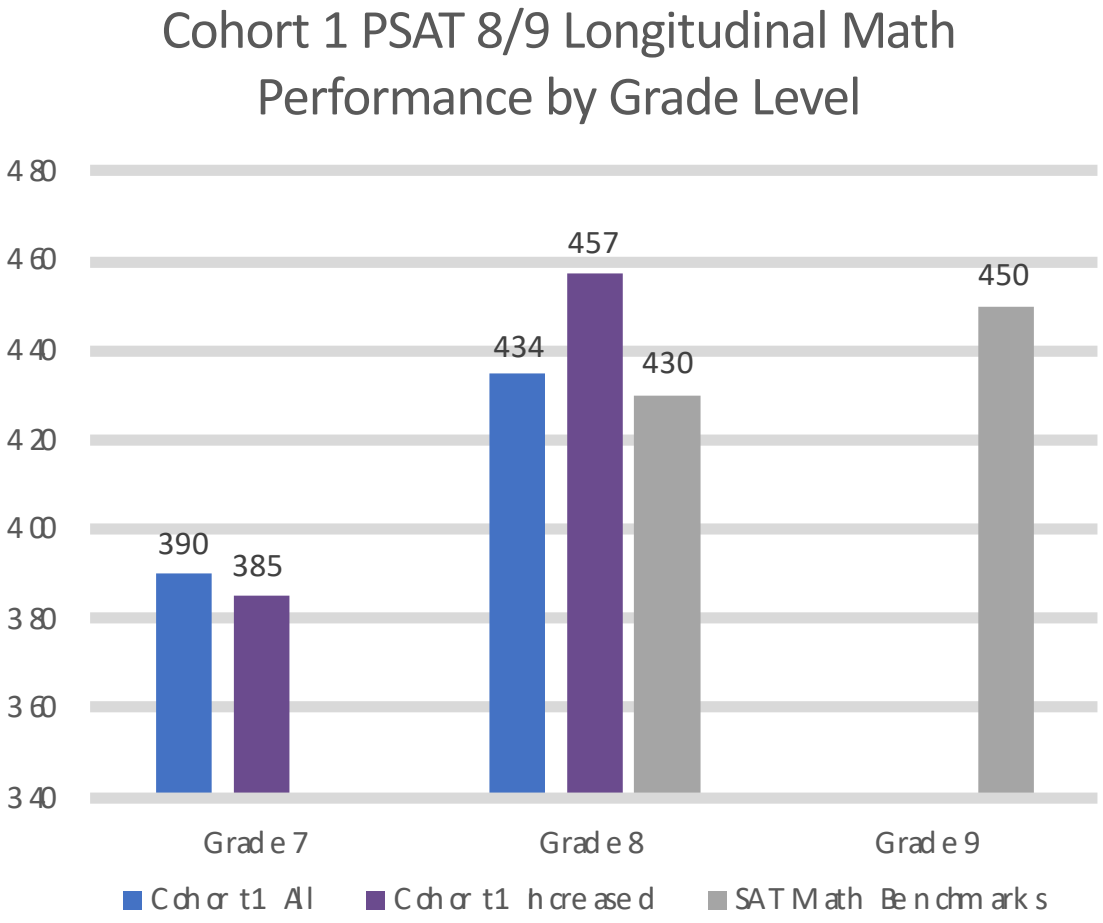
Middle School Math
Year 1 Performance Highlights



Cohort 1

- **67%** of students tested in both years increased from 7th to 8th grade
- **43%** of 8th grade students tested in 2017 have already met 9th grade math benchmark

Source: AdvanceKentucky Database and College Board

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Computer Science
Code.org Regional Partnership

Code.org® Regional Partner

Courses

- CS Fundamentals (grades K-6)
- CS Discoveries (grades 7-9)
- AP CS Principles (grades 10-12)

CSD and CSP Training

- Summer Professional Development (5 days)
- 4 one-day workshops during academic year

CSF Training

- One-day workshops for CSF

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Computer Science
KY CS Expansion Initiative

Cohort 2 Profile

- **43** High School Teachers (6 ATC)
- **48** Middle School Teachers
- **39** Public School Districts

Partners

- Kentucky Department of Education
- Code.org
- College Board
- AdvanceKentucky

Purpose

- Train up to **200** total Kentucky teachers in computer science each year for three years.
- **50** teachers in AP CSP each year

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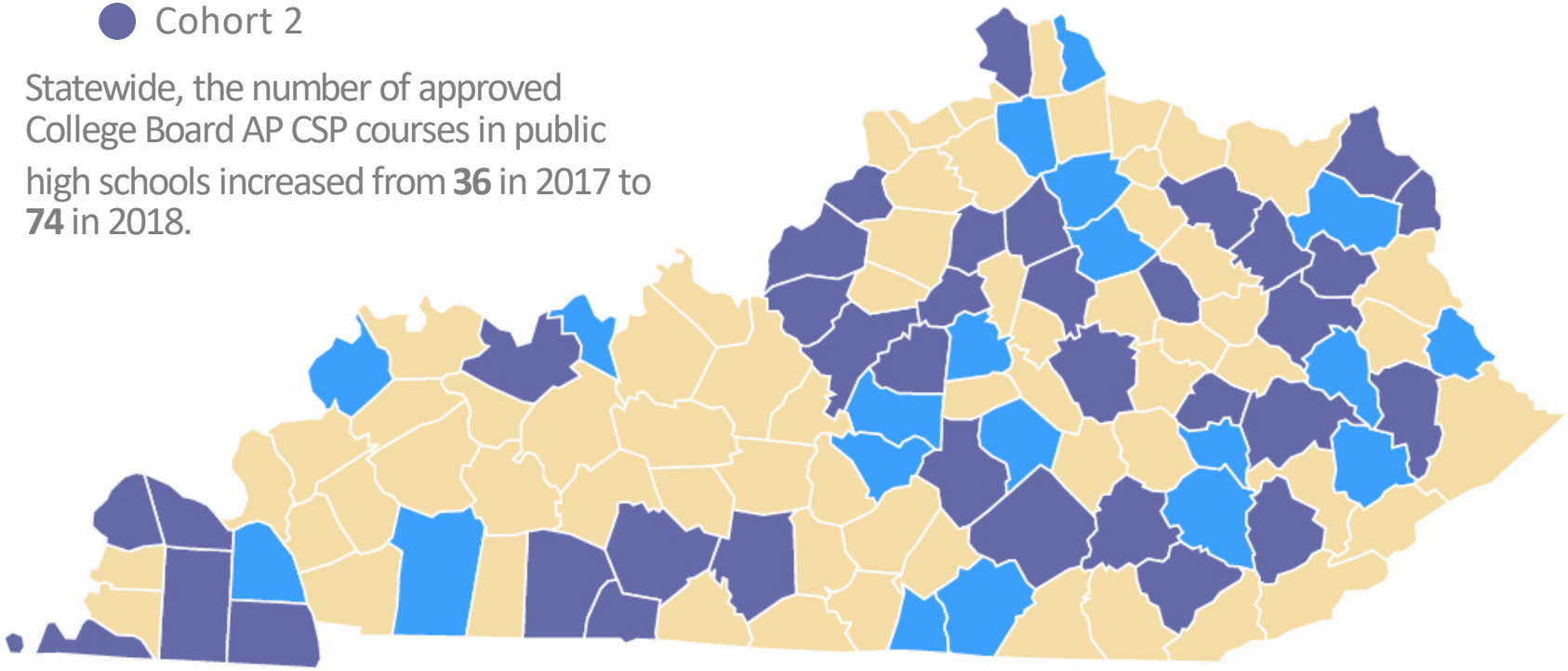
Computer Science
142 public MS and HS Classrooms

- Cohort 1 (2017-2018)
- Cohort 2

Statewide, the number of approved College Board AP CSP courses in public high schools increased from **36** in 2017 to **74** in 2018.



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Computer Science
Cohort 1
2017-18 Profile

AP CS Principles

40 public high schools and ATC

- **63%** of participating schools were designated high needs (more than 50% FRL)
- **13%** of Code.org AP CSP enrollments were minority
- **38%** of Code.org AP CSP enrollments were female

CS Discoveries

14 public middle schools

- **57%** of participating schools were designated high needs (more than 50% FRL)
- **14%** of Code.org CSD enrollments were minority
- **45%** of Code.org CSD enrollments were female

Source: Code.org

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