REPORT TO THE BOARD OF DIRECTORS
CALIFORNIA CONNECTIONS ACADEMY SCHOOLS
CalCA 9th Grade Math Placements for 2021-2022

Overview

This report is being provided as required by the Math Placement Policy adopted by the boards in 2016.

Data includes 1220 students who enrolled in 9th grade prior to October 1, 2022. 99% of 9th grade students were enrolled in Algebra 1, Geometry, or Algebra 2, honors and non-honors versions of these courses were combined for the sake of streamlining data reporting. The few students enrolled in Precalculus and Honors Precalculus are included in the report where applicable. Data has been rounded to whole numbers for the ease of interpretation.

Table 1: Overall Math Placement Comparison 2021 vs 2022

Statewide, CalCA 9th grade students were distributed across math placements in the following percentages. This table includes both 2021 and 2022 math placements as of October 1 of each year. Highlighted areas indicate the following information:

Green	When the school's representation in Algebra 1 has **decreased** in 2022 **OR** when the school's representation in Geometry/Algebra 2 has **increased** in 2022.
Red	When the school's representation in Algebra 1 has **increased** in 2022 **OR** when the school's representation in Geometry/Algebra 2 has **decreased** in 2022.

Course	2021	2022	Change
Algebra 1	72%	69%	-3%
Geometry	24%	28%	+4%
Algebra 2	3%	3%	0%

As a school, we are showing a decrease in Algebra 1 placements, and an increase in Geometry placements. This trend towards increased placement in higher level math is encouraging, especially considering the impact of the COVID-19 pandemic on all aspects of life.

Placement Overall

If 8th graders take Algebra 1 and pass in 8th grade, then an on-track, college-bound student should take Geometry as a 9th grader. A student who takes Algebra 1 as a 9th grader would follow a traditional progression of Algebra 1, Geometry, Algebra 2, Pre-Calculus, and would still be on track for college acceptance. Students who start at Geometry in 9th grade would be able to qualify for an AP level course following a typical 4 year progression.

Table 2: Math Placements 2021 Student Group Distribution

Looking only at course level placements (combining honors and non-honors) gives a snapshot of where students are placed broken down by student group. The following table compares 2021 math placements only; representing the placement of student groups in the levels of math as compared to 2021 school-wide totals. Highlighted areas indicate the following information:

Blue	The percentage composition of that student group within CalCA.

Green	When a student groups' representation in Algebra 1 is **lower** than the CalCA distribution **OR** when a student groups' representation in Geometry/Algebra 2 is **higher** than the CalCA distribution.
Yellow	When a student groups' representation in any math level is **equal** to the CalCA distribution.
Red	When a student groups' representation in Algebra 1 is **higher** than the CalCA distribution **OR** when a student groups' representation in Geometry/Algebra 2 is **lower** than the CalCA distribution.

All CalCA (honors and non-honors combined)	2022	Comparison to Total
American Indian or Alaskan Native	**1%**	
Algebra 1	75%	6%
Geometry	25%	-3%
Algebra 2	0%	-3%
Asian	**6%**	
Algebra 1	34%	-35%
Geometry	47%	19%
Algebra 2	14%	11%
Black/African American	**10%**	
Algebra 1	78%	9%
Geometry	22%	-6%
Algebra 2	0%	-3%
Hispanic or Latino	**27%**	
Algebra 1	76%	7%
Geometry	22%	-6%
Algebra 2	2%	0%
Multiple Races	**18%**	
Algebra 1	69%	0%
Geometry	28%	0%
Algebra 2	3%	0%
Native Hawaiian or Other Pacific Islander	**1%**	
Algebra 1	75%	6%
Geometry	25%	-3%
Algebra 2	0%	-3%
White (Not Hispanic or Latino)	**37%**	
Algebra 1	68%	-1%
Geometry	30%	3%
Algebra 2	1%	-1%

This table shows that during the 2021-2022 school year, students in the Asian and White student groups had an overall higher representation in higher level math placements as compared to their classmates of the American Indian or Alaska Native, Black/African American, Multiple Races, Native Hawaiian or Other Pacific Islander, and Hispanic or Latino student groups. The question to be answered at this point is, has there been any change in overall placements when 2020 is compared to 2021?

Table 3: Math Placements 2021 vs. 2022 Student Group Distribution

The following table compares 2021 math placements to 2022 math placements. The table is displaying change in percentage of student groups placed in each math level. Highlighted areas indicate the following information:

Blue	The percentage composition of that student group within CalCA.
Green	When a student groups' representation in Algebra 1 has **decreased** in 2022 **OR** when a student groups' representation in Geometry/Algebra 2 has **increased** in 2022.
Yellow	When a student groups' representation in any math level is the **same** in 2021 and 2022.
Red	When a student groups' representation in Algebra 1 has **increased** in 2022 **OR** when a student groups' representation in Geometry/Algebra 2 has **decreased** in 2022.

All CalCA (honors and non-honors combined)	2021	2022	Change
American Indian or Alaskan Native	**1%**	**1%**	
Algebra 1	100%	75%	-25%
Geometry	0%	25%	25%
Algebra 2	0%	0%	0%
Asian	**7%**	**6%**	
Algebra 1	46%	34%	-11%
Geometry	39%	47%	8%
Algebra 2	16%	14%	-2%
Black/African American	**9%**	**10%**	
Algebra 1	68%	78%	10%
Geometry	31%	22%	-9%
Algebra 2	1%	0%	-1%
Hispanic or Latino	**39%**	**27%**	
Algebra 1	79%	76%	-3%
Geometry	20%	22%	2%
Algebra 2	1%	2%	0%
Multiple Races	**9%**	**18%**	
Algebra 1	75%	69%	-6%
Geometry	24%	28%	5%
Algebra 2	1%	3%	1%
Native Hawaiian or Other Pacific Islander	**1%**	**1%**	
Algebra 1	67%	75%	8%
Geometry	33%	25%	-8%
Algebra 2	0%	0%	0%
White (Not Hispanic or Latino)	**35%**	**37%**	
Algebra 1	72%	68%	-4%
Geometry	25%	30%	5%

Algebra 2	3%	1%	-2%

When comparing math placement from 2020 to 2021, there have been improvements made in American Indian or Alaskan Native, Asian, Multiple Races, white, and Hispanic or Latino of Algebra placements occurred. There were slight increases in Geometry placements across all races except Black/African American and Native Hawaiian or Other Pacific Islander. Algebra 2 placements had relatively slight changes across the board with each race/ethnicity.

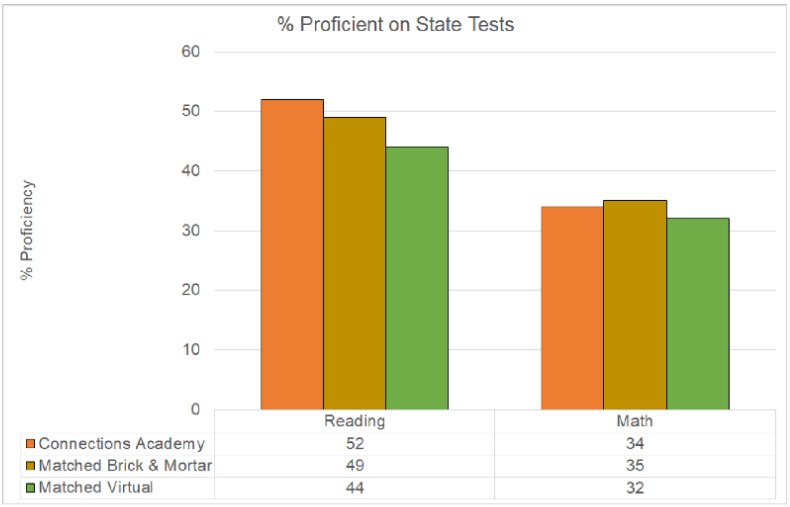
Summary of Findings

Overall, CalCA is showing a mixed pattern across student groups in 2022. Black/African American and Native Hawaiian or Other Pacific Islander student groups showed a higher distribution of placement in Algebra 1. Students in the American Indian or Alaskan Native, Asian, Hispanic or Latino, Multiple Races, and White student groups showed a lower distribution of placement in Algebra 1. As mentioned earlier, comparisons such as these in this report can be tricky due to a lack of control over 8th grade math placements of 9th graders new to CalCA. CalCA does have a well-defined placement process and a process for placement reevaluation both when requested by a family and also after receipt of formative assessment data such as NWEA MAP. NWEA MAP data are analyzed by High School Math Department Leadership and students who show the most potential are moved to the higher math level when deemed appropriate. It is important to note that it is the mission of CalCA to help students achieve at the highest level, but they also must start at the level they exist in. Increases in higher level math placements are welcomed but pushing students into too high of a level, can also be damaging to their educational progress.

The Effect of Mobility

Pearson's Efficacy Research Report was published on April 3, 2018. The overall focus of this report was to control for student mobility at both Connections Academy schools and their matched brick and mortar counterparts. Below is a summary of their findings.

Results - Phase Two: School Comparison Study



Existing research studies do not account for student mobility - a dominant attribute of virtual school students.

This is the first time we can see performance through a mobility lens.

Note that in phase two mobility was calculated based on each state's definition (see Appendix for additional details)

Pearson 18

The graph highlights a gain in reading proficiency for Connections Academy students when compared to their matched brick and mortar counterparts. In terms of mathematics proficiency, Connections Academy students only slightly underperform their matched brick and mortar counterparts. If we align mathematics proficiency to course placement both at CalCA and at matched brick and mortar counterparts, we can infer that math placements of continuing 8th grade Connections Academy students would not differ markedly to new to Connections Academy 9th grade students, or we would expect to see a larger variation on math proficiency on standardized assessments.

Next Steps

This overall math placement analysis is a yearly expectation. As a result, next steps from last year will be continued. The status of these next steps will be recorded after each one.

- Continue to track statistics annually – Completed and Ongoing
- Continue discussion with staff, including our high school-wide Math Mindset discussions, as well as discussions and training with the guidance team – Completed and Ongoing
- Follow up in the Fall to see which students might be accelerated – Ongoing
- Monthly Math Focus Group Meetings – Started in the 1920 school year and continue. All school levels participate collaborating towards the goal of improving math success schoolwide.