



Getting Down to **FACTS**



Recent Academic Achievement Trends in California

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Introduction

In this report I describe patterns and trends in the academic performance of California public school students, using data from state-administered standardized tests in grades 3-8 from 2009 through 2025.

The first section of the report compares trends in academic performance in California to trends in the U.S. as a whole. Although average academic performance in California has historically lagged that of the nation, test scores in California grew faster than the national average from 2003-2019 and have declined less than the U.S. as a whole from 2019-2024. Nonetheless, California students' academic skills are, on average, still slightly lower than the national average.

The second section of the report compares academic performance across student economic, racial/ethnic, and gender subgroups. The test scores of economically advantaged, Asian, and White students in California have grown, on average, faster than those of economically disadvantaged, Hispanic, and Black students. In addition, the test scores of female students have declined more since 2019 than boys' scores.

The third section of the report describes the variation in academic performance across California's districts and schools. Academic skills vary substantially across school districts, ranging from more than three grade levels below the national average in some school districts to more than three grade levels above in others. In general, academic performance is higher in larger, suburban, and more affluent school districts than smaller, rural, and lower-income districts.

The fourth section of the report examines the trends in academic achievement in high- and low-income school districts from 2009 to 2025. These trends show that math skills have improved over the last 16 years in affluent school districts but have declined in low-income districts, leading to a

substantially larger between district disparity today than in 2009. In reading, however, trends in academic performance have been largely similar in high- and low-income districts over this period.

The report concludes with some discussion of the implications of these patterns and trends.

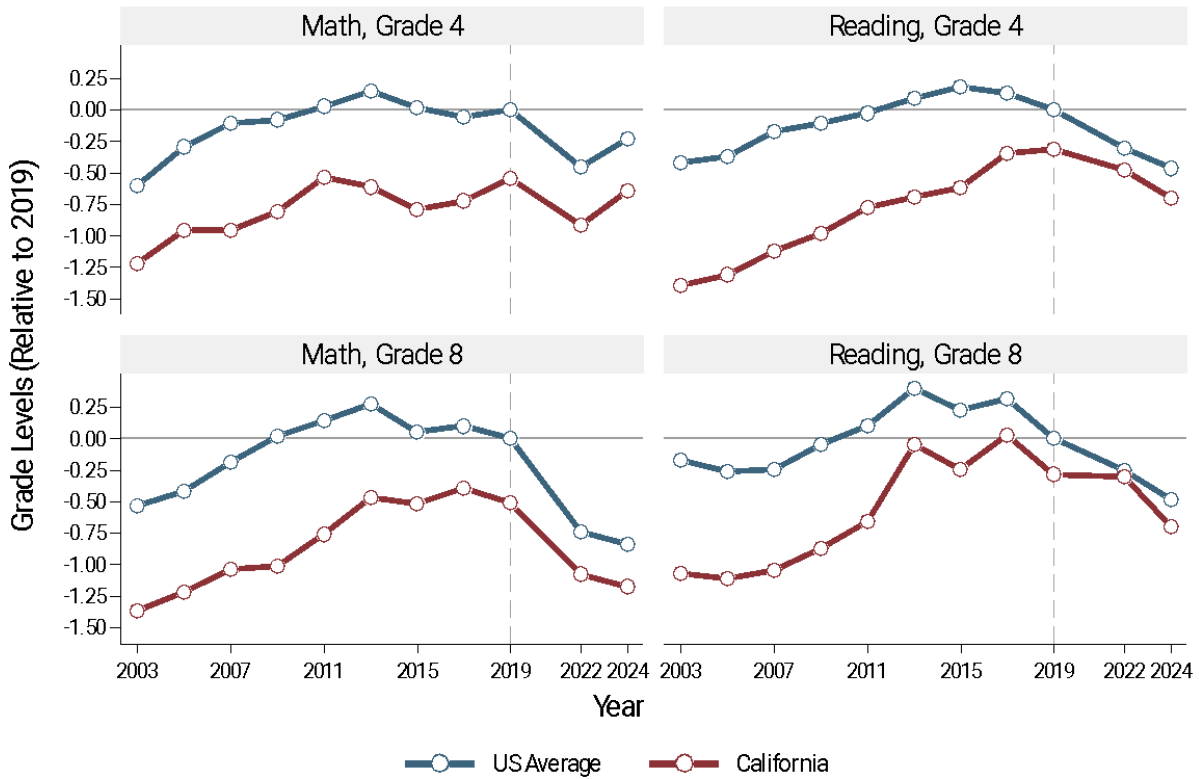
In reading this report, it is important to keep in mind that academic performance is not just the result of what happens in schools but reflects all the educational opportunities students have had throughout their lives. When average test scores are higher in some years, districts, or student subgroups than others, those differences are the result of differences in the set of educational opportunities available to different sets of California students. These educational opportunity differences may be due to differences in school resources and effectiveness, to be sure, but they may also be due to differences in children's early childhood experiences, the resources and opportunities their families are able to pay for and provide, the quality of child care and preschool programs available, and the influences of other out-of-school experiences.

1. Trends in Academic Performance: California and the U.S.

The National Assessment of Educational Progress (NAEP) is generally considered the gold-standard for comparing academic performance over time and across states, because the NAEP assessments are designed explicitly for this purpose. The NAEP math and reading assessments have been administered to representative samples of students from each state in 4th and 8th grade since 2003, usually every other year (2024 is the most recent NAEP data).

Figure 1 shows the trends in math and reading skills in California and the U.S. as a whole from 2003-2024. The NAEP scores are converted here to grade level equivalents, relative to the US national average in 2019. In 2003, California students performed between 0.6 and 1.0 grade levels below the U.S. average. But math and reading scores in California rose faster than the national average from 2003 to 2019 and declined less than the national average after 2019. By 2024, California students were only 0.3 grade levels behind the national average in math and 0.2 grade levels behind in reading.

Figure 1: NAEP trends, CA and US, by subject and grade, 2003-2024



Source: NAEP Data, public school sample. Average NAEP scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019.

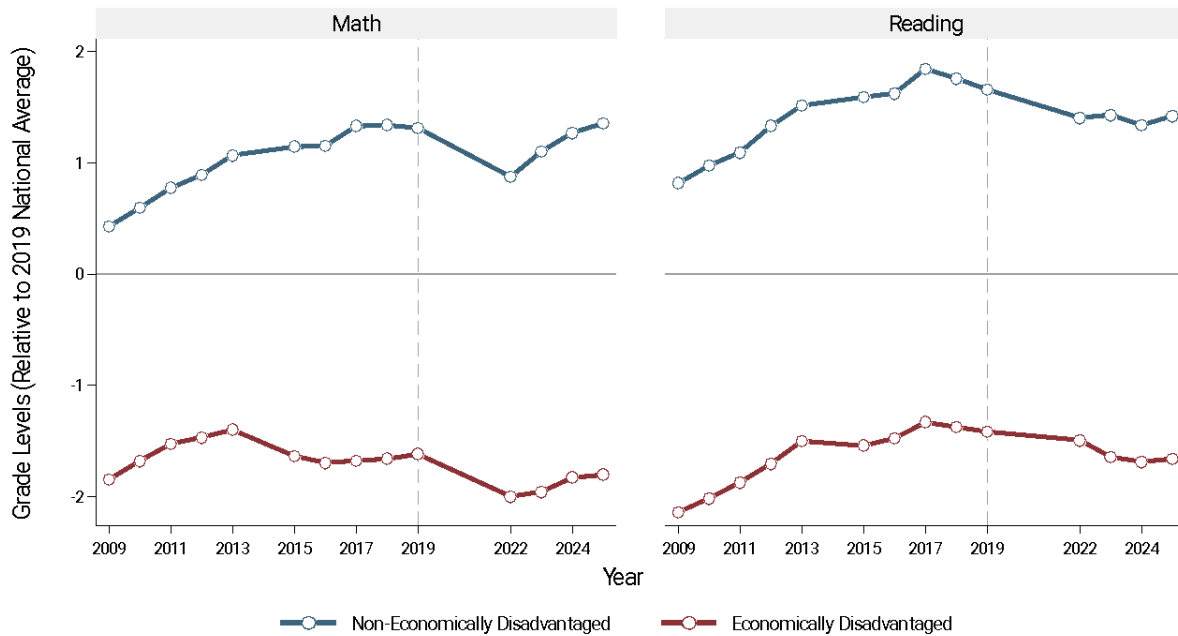
2. Academic Performance in California, by Student Subgroup

Although NAEP provides estimates of average academic performance by subgroup in grades 4 and 8, the NAEP samples, particularly when broken down by subgroup, are small, yielding imprecise estimates. In contrast, the state-administered math and reading assessments (SBAC since 2015; CST tests prior to 2014) are given to all students in the state, in each year, and in grades 3-8. As a result, the state assessments yield much more precise and detailed information about patterns and trends of academic skills by subgroup.

Figures 2-4 below show trends in average math and reading skills, by student economic disadvantage status (Figure 2), student race/ethnicity (Figure 3), and student gender (Figure 4). Each figure shows the trend in average test scores, by subgroup, from 2009-2025. Note that data for 2014

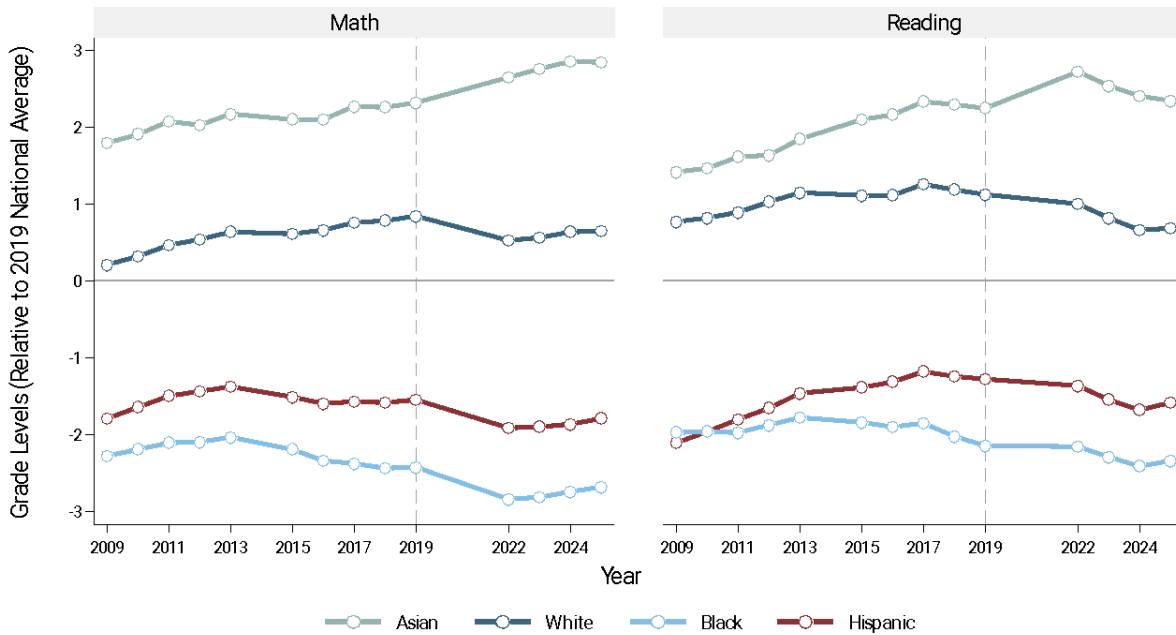
are not available, as the state did not test students that year as it transitioned from the CST tests to the SBAC tests. Nor are data available for 2020 and 2021, due to suspended testing during the COVID-19 pandemic. In each year, the state test (CST or SBAC) scores are converted to the NAEP scale, to facilitate comparisons over time. The NAEP scale is converted to 2019 grade level equivalents, using methods described by Fahle et al (2026). In this scale, a score of 0 indicates that average student performance in grades 3-8 is equal to the national average in 2019; scores above or below 0 indicate the difference, in grade levels, between students' scores and the 2019 national average.

Figure 2: California Test Score Trends by Student Economic Disadvantage Status, 2009-2025



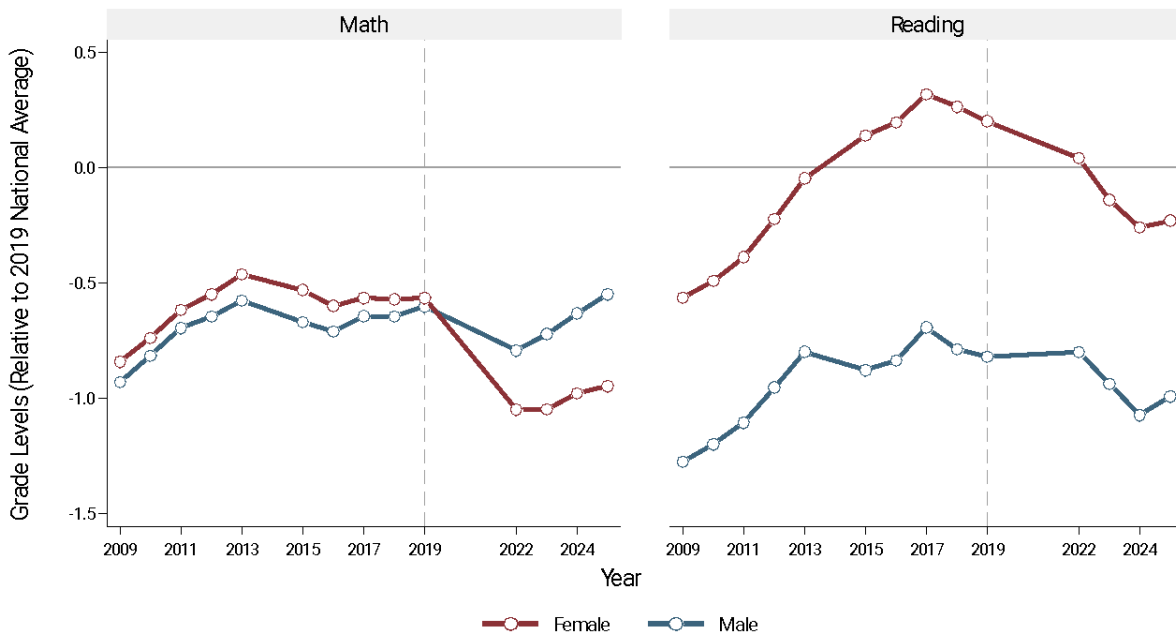
Source: Stanford Education Data Archive (SEDA), as compiled from *EDFacts* (2009-2019) and CDE data (2022-2025). Data include all tested public-school students in grades 3-8. Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8.

Figure 3: California Test Score Trends by Student Race/Ethnicity, 2009-2025



Source: Stanford Education Data Archive (SEDA), as compiled from *EDFacts* (2009-2019) and CDE data (2022-2025). Data include all tested public-school students in grades 3-8. Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8.

Figure 4: California Test Score Trends by Student Gender, 2009-2025



Source: Stanford Education Data Archive (SEDA), as compiled from *EDFacts* (2009-2019) and CDE data (2022-2025). Data include all tested public-school students in grades 3-8. Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8.

Table 1 reports the academic performance gaps between student subgroups in California from 2009 through 2025. Gaps here are measured in grade levels. performance gaps have grown substantially in math over this period: the gap in math performance between non-economically disadvantaged and disadvantaged students grew from 2.3 grade levels in 2009 to 3.2 grade levels in 2025, a 37% increase. The Asian-White, White-Hispanic, and White-Black gaps in math also grew significantly over this period. Notably, the female-male gap was insignificant in 2009, then grew to 0.1 grade levels (in favor of girls) by 2015, but then reversed sharply after 2019; by 2025, boys outperformed girls in math by 0.4 grade levels.

In reading, the gaps changed in similar ways, but less dramatically, except for the Asian-White gap, which more than doubled from 2009-2025, and the White-Hispanic gap, which narrowed by 20%, from 2.9 to 2.3 grade levels.

Table 1: California Academic Performance Disparities, by Subgroups, 2009-2024

Year (Spring)	Math					Reading				
	Female-Male	Non-ECD - ECD	Asian-White	White-Black	White-Hispanic	Female-Male	Non-ECD - ECD	Asian-White	White-Black	White-Hispanic
2009	-0.01	2.32	1.60	2.57	2.08	0.76	2.96	0.65	2.79	2.86
2010	0.06	2.27	1.78	2.49	1.91	0.69	2.97	0.76	2.77	2.74
2011	0.15	2.29	1.89	2.49	1.83	0.71	2.96	0.89	2.73	2.64
2012	0.11	2.29	1.38	2.45	1.79	0.71	3.01	0.48	2.76	2.66
2013	0.04	2.36	1.37	2.52	1.85	0.72	2.97	0.59	2.74	2.58
2014			n/a (no testing)					n/a (no testing)		
2015	0.13	2.81	1.29	2.99	2.38	1.08	3.16	0.95	3.18	2.63
2016	0.12	2.86	1.37	3.09	2.37	1.08	3.09	1.01	3.17	2.51
2017	0.10	2.99	1.48	3.14	2.36	1.03	3.15	1.05	3.16	2.46
2018	0.09	2.96	1.57	3.14	2.29	1.06	3.10	1.15	3.15	2.37
2019	0.05	2.92	1.62	3.14	2.25	0.98	3.07	1.14	3.16	2.34
2020			n/a (no testing)					n/a (no testing)		
2021			n/a (no testing)					n/a (no testing)		
2022	-0.24	2.89	2.11	3.37	2.45	0.86	2.94	1.72	3.13	2.39
2023	-0.32	3.06	2.19	3.37	2.47	0.79	3.06	1.71	3.12	2.37
2024	-0.34	3.06	2.24	3.36	2.48	0.82	2.98	1.74	3.06	2.30
2025	-0.38	3.18	2.19	3.31	2.45	0.78	3.08	1.63	2.97	2.28
Change 2009-2025	-0.37	0.86	0.58	0.74	0.36	0.02	0.12	0.98	0.17	-0.58
Percentage Change		37%	36%	29%	17%	3%	4%	153%	6%	-20%

Source: Stanford Education Data Archive (SEDA), as compiled from ED*Facts* (2009-2019) and CDE data (2022-2025). Data include all tested public-school students in grades 3-8. Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8. Gaps are computed by subtracting the statewide mean score of students in the second subgroup from that of the first subgroup (e.g., “Female-Male” gap is the female mean score minus the male score), so that a positive gap indicates the first subgroup has higher average scores than the second.

3. Patterns of Academic Performance by District Characteristics

California is a large, diverse state, and the average levels and trends in academic performance in California shown above mask substantial variation across the state. Table 2 shows average math and reading scores in 2025, relative to the 2019 national average, by district size and urbanicity. In general, test scores are roughly half a grade level higher, on average, in larger districts than in the smallest (bottom quartile of size) districts. Scores are highest in suburban and urban districts than in rural/town districts. More generally, this reflects a pattern of fewer educational opportunities and lower academic performance in the Central Valley and many small and rural districts relative to the larger suburban

districts in the state’s metropolitan areas (San Francisco/San Jose/Oakland, Los Angeles/Long Beach, San Diego, Sacramento, etc.).

Table 2: California Average Test Scores, 2025, by District Characteristics

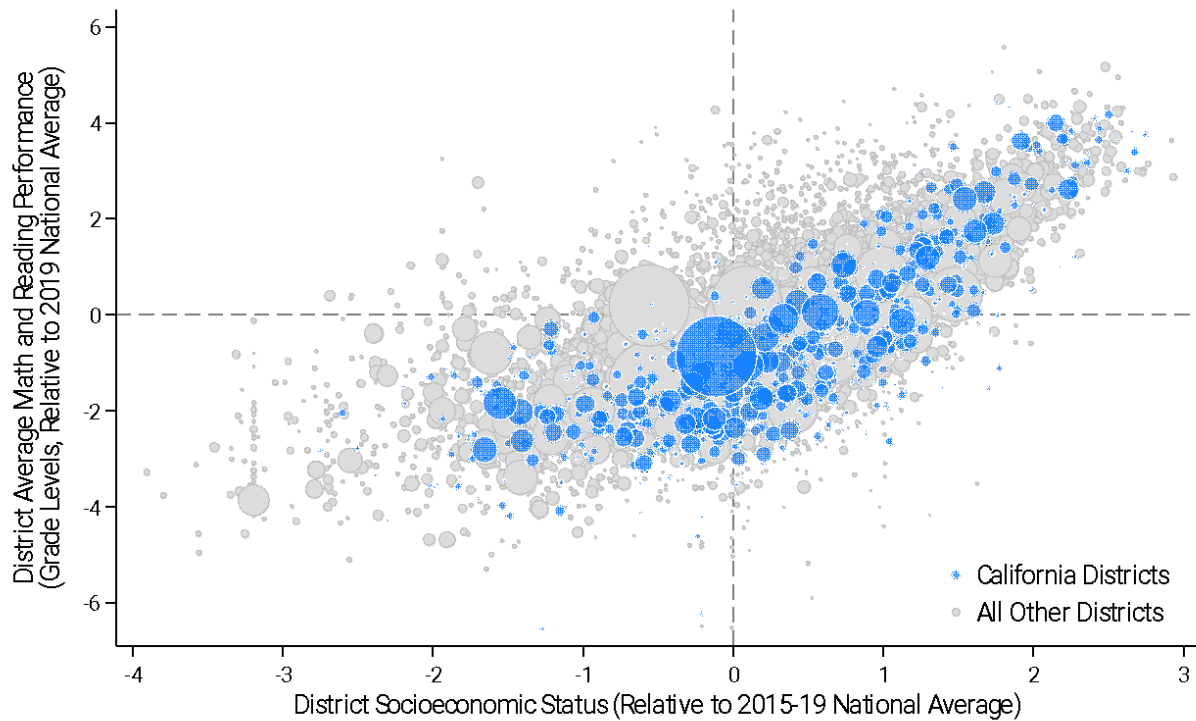
	Math		Reading	
	Unweighted District Mean	Enrollment-Weighted District Mean	Unweighted District Mean	Enrollment-Weighted District Mean
District Size				
Small (Size Quartile 1)	-1.02	-1.09	-1.10	-1.19
Quartile 2	-0.95	-0.97	-0.96	-0.97
Quartile 3	-0.61	-0.58	-0.57	-0.53
Large (Size Quartile 4)	-0.55	-0.66	-0.45	-0.55
District Urbanicity				
Rural	-1.09	-1.38	-1.08	-1.33
Town	-1.51	-1.65	-1.44	-1.53
Suburban	-0.23	-0.63	-0.18	-0.50
Urban	-0.55	-0.50	-0.64	-0.44

Source: Stanford Education Data Archive (SEDA), as compiled from *EDFacts* (2009-2019) and CDE data (2022-2025). Data include all tested public-school students in grades 3-8. Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8.

School districts’ average academic performance also varies with socioeconomic status. In California, as in the U.S. as a whole, average test scores are much higher in affluent school districts with highly educated parents than in lower-income districts where fewer parents have college degrees. This pattern is somewhat more pronounced in California than nationally, as is evident in Figure 5. In Figure 5, the most affluent California districts (upper rightmost blue circles) have average test scores as high or higher than similarly high-SES districts around the country. But average and low-SES districts in California have, on average, test scores that are lower than the average district of similar socioeconomic status elsewhere in the U.S.

The difference in academic performance between higher- and lower-SES districts is quite large. In California, students in districts at the 90th percentile of socioeconomic status score, on average, 2.7 grade levels higher in math and 2.5 grade levels higher in reading than those in districts at the 10th percentile. These large disparities result from the vastly different sets of educational opportunities available to children growing up in families and communities with different levels of economic resources.

Figure 5: District Average Academic Performance, by Socioeconomic Status, 2025



Source: Stanford Education Data Archive (SEDA), as compiled from *EDFacts* (2009-2019) and CDE data (2022-2025); ACS data (2015-19). Data include all tested public-school students in grades 3-8. Each bubble represents a school district; bubbles are weighted by district size (average students/grade). Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8. District math and reading scores are averaged. The socioeconomic status (SES) index is constructed as the first principal component of district median income, proportion of adults with a bachelor's degree or higher, district poverty rate, unemployment rate, SNAP eligibility rate, and proportion of female-headed households.

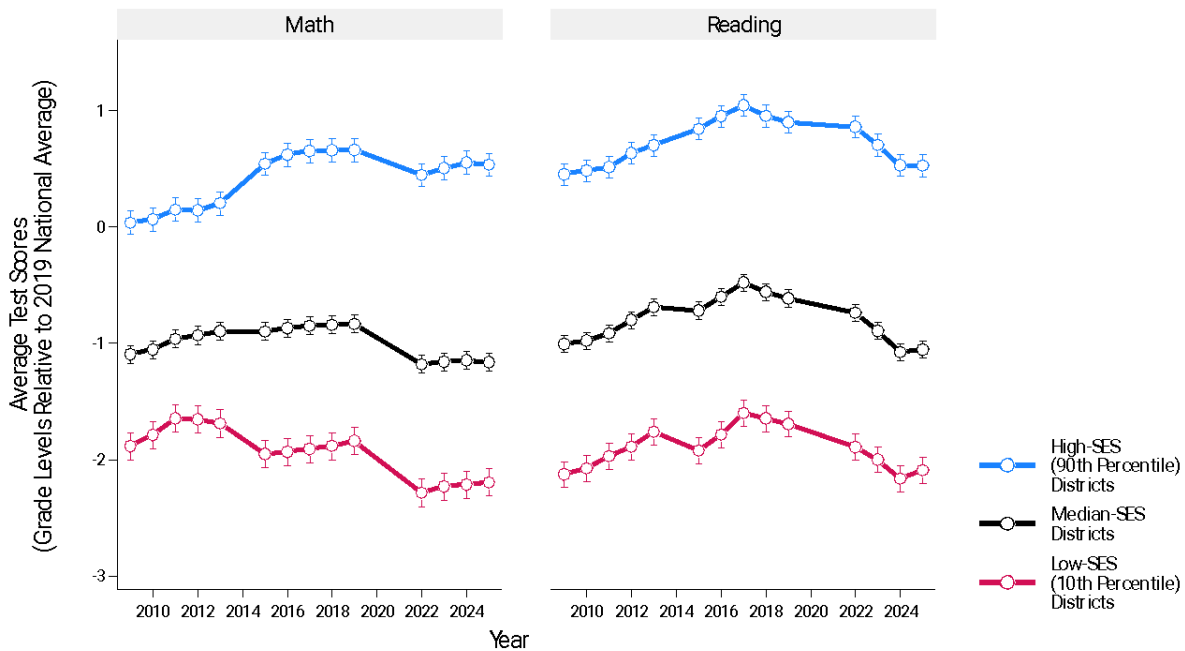
4. Trends in Academic Performance, by District Socioeconomic Status, 2009-2025

Figure 5 displays the association between district performance and socioeconomic status in 2025. But it is also useful to know what kinds of districts have seen improving academic performance over time, and which have seen declines.

Figure 6 shows trends in academic performance for high-, median-, and low-SES California school districts from 2009-2025. In high-SES districts, math scores have risen over the last 16 years, except for a modest decline during the pandemic, while in middle-SES districts, math scores have been

relatively flat. In low-SES districts, in contrast, math scores have fallen since 2011. Trends in reading scores have been relatively similar in high- and low-SES districts, rising from 2009 to 2017, and declining from 2017 to 2025.

Figure 6: Trends in Average Academic Performance, by District SES, California 2009-2025



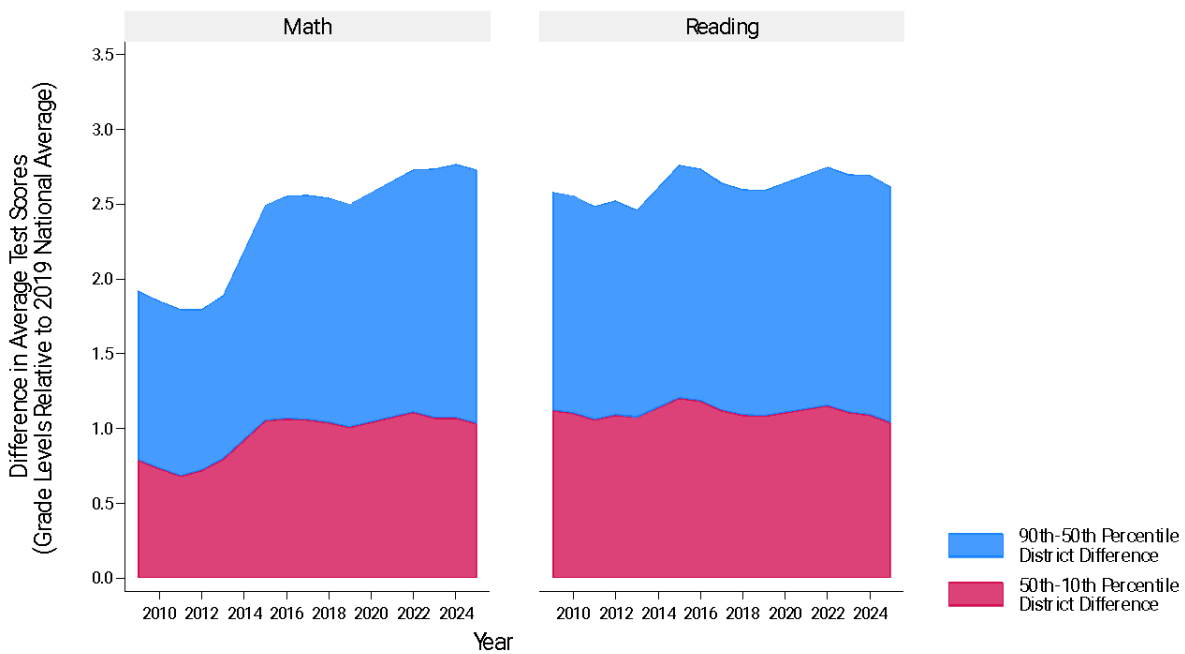
Source: Stanford Education Data Archive (SEDA), as compiled from *EDFacts* (2009-2019) and CDE data (2022-2025); ACS data (2015-19). Data include all tested public-school students in grades 3-8. Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8. The socioeconomic status (SES) index is constructed as the first principal component of district median income, proportion of adults with a bachelor’s degree or higher, district poverty rate, unemployment rate, SNAP eligibility rate, and proportion of female-headed households, as measured in 2015-19. The 90th, 50th, and 10th percentiles of SES are based on the unweighted national distribution of district SES.

The combination of rising scores in high-SES districts and declining scores in low-SES districts has led to a widening disparity between high- and low-SES districts (see Figure 7). In 2009, students in a 90th percentile SES district in California scored about 1.9 grade levels above those in a 10th percentile district; by 2025, this disparity had grown by over 40%, to more than 2.7 grade levels. The gap widened particularly from 2013 to 2015, as the state implemented the Common Core State Standards and switched from the CST tests to the SBAC assessments, and from 2019 to 2022, during the COVID-19

pandemic. In reading, the disparity between high- and low-SES districts has been comparatively stable from 2009-2025, remaining at roughly 2.5 grade levels throughout much of the 2009-2025 period.

Figure 7 also shows that the disparity in test scores between high- and median-SES districts is much larger (roughly 50% larger) than that between median- and low-SES districts. Moreover, the growing disparity in achievement between high- and low-SES districts has been driven largely by the difference in trends between high- and median-SES districts. Together Figures 6 and 7 indicate that improvements in educational opportunities and outcomes over the last 15 years have been concentrated in the most affluent districts in the state. Middle- and lower-income districts have largely experienced stagnating or declining achievement.

Figure 7: Trends in Average Academic Performance Gap Between High- and Low-SES Districts, by Grade Level, California and U.S. 2009-2025



Source: Stanford Education Data Archive (SEDA), as compiled from *EDFacts* (2009-2019) and CDE data (2022-2025); ACS data (2015-19). Data include all tested public-school students in grades 3-8. Test scores are converted to grade level equivalents using methods described in Fahle et al (2026) and standardized to the national average in 2019 and then averaged across grades 3-8. The socioeconomic status (SES) index is constructed as the first principal component of district median income, proportion of adults with a bachelor’s degree or higher, district poverty rate, unemployment rate, SNAP eligibility rate, and proportion of female-headed households, as measured in 2015-19. The 90th, 50th, and 10th percentiles of SES are based on the unweighted national distribution of district SES.

Figures 6 and 7 show trends in test scores (and differences in scores) averaged over grades 3 to 8. Analysis (not shown) of grade-specific trends shows that the disparity between high-and low-SES districts is already large by third grade. This suggests that some of the forces that shape patterns and trends in educational opportunity operate relatively early in children’s lives and schooling careers.

Summary

This review of recent patterns and trends in academic performance in California reveals several key facts. First, California has made noteworthy progress in the last two decades to improve educational outcomes for students in public schools. Over the last 20 years, California students’ performance has risen faster (or declined slower in recent years) than those of the average student nationwide. This progress has been more pronounced in reading than in math, but in both subjects, California has shown substantial improvement relative to the rest of the country.

Second, this progress has been unevenly distributed, particularly in math. Most of the state’s gains in math have been driven by improving scores among non-poor students, Asian students, White students, and male students. For each of these groups, math performance in 2025 was higher than in 2009. Indeed, scores for most (except for White students) of these student groups are higher today than in 2019: they have more than rebounded from the effects of the pandemic. But math scores for poor students, Black and Hispanic students, and female students have been stagnant or declined over the same period. Moreover, math performance has improved in high-SES districts but has been stagnant in middle-class districts and declining in low-SES districts. As a result, patterns of economic, racial/ethnic, and gender inequality in math performance have worsened in California in the last 16 years.

This is not the case in reading; except for the Asian-White reading gap—which grew sharply from 2009-2025—economic, racial/ethnic, and gender gaps in reading have changed little since 2009. Third, inequality in educational performance is already substantial by third grade, indicating that California’s students have unequal educational opportunities in early childhood and/or in kindergarten through third grade. But because the state has no systematic assessment system for children younger

that grade 3, California lacks the data needed to determine the extent to which the differences in third grade skill arise from differences in access to quality child care and preschool or to differences in the quality of their K-3 schooling experiences.

Over twenty-five states currently require schools to assess all students' early literacy, numeracy, and socio-emotional skills at the start of kindergarten. Adoption of a statewide kindergarten readiness assessment would allow California 1) to evaluate the effectiveness of its investments in child care, preschool, and transitional kindergarten; 2) to measure the extent to which public elementary schools may be reducing inequality; and 3) to identify each student's skills to help kindergarten teachers better target their instruction.

California's assessment results provide a detailed portrait of educational opportunity in the state. Used wisely, these data can help the state better target its resources to the schools and students in need of educational supports. They can be used to identify districts and schools making strong gains, so that educators and policymakers can better understand the conditions of success. And they can be used to identify places where improvement is most needed, so that the state's resources can be effectively targeted. With the addition of a statewide kindergarten readiness assessment, the state could better understand the impact of its early childhood and elementary school investments, something that is challenging in the absence of any common assessment data prior to grade 3. And finally, the data clearly show that educational opportunities are becoming more unequal in California, particularly with regard to math skills, suggesting that the state and its schools and districts should increase their focus on providing effective learning opportunities for students from disadvantaged communities and backgrounds.

References

Fahle, E. M., saliba, j., Reardon, S. F., Shear, B. R., Kalogrides, D., & Ho, A. D. (2026). Stanford Education Data Archive: Technical Documentation (Version 6.0). Retrieved from <https://purl.stanford.edu/xh833nn4025>.