

Not Enough Adults to Go Around: Underfunded California Schools Provide Less Support for Kids

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Executive Summary

Since the 1960s, and accelerated by the passage of Proposition 13 in 1978, California has experienced a decline in adequate funding for the public education system that has created a jarring reality for its 6.2 million students. While recent investments have helped schools fully recover from the devastating cuts made during the great recession, that additional spending has not come close to what is needed to achieve the state's goals.

California's schools have larger class sizes, fewer counselors, stripped-down course offerings, and fewer support services than most every other state in the country. The impact of this understaffing acutely affects those students with greater needs, including those caused by poverty, language barriers, adverse childhood experiences and special needs.

Policymakers have adopted important education reforms in California in recent years, which are laudable, but leaders must also understand that the investments made to date have been insufficient to ensure students have enough caring adults on campus.

In schools, people make the difference. Without enough staffing, school personnel are often overworked and lack the professional development they need. Understaffing also affects the quality of students' experiences at school and their ability to access additional support when they need it. Students with specific learning needs, such as those with disabilities and English learners, require additional support and are often best served by teachers, and others, with specialized skills and knowledge. Students who face significant adverse childhood experiences in their lives outside of school, including experiencing trauma, being homeless, or living in foster care, also need support that goes beyond traditional instruction. While all students suffer as a result of understaffing, it is these vulnerable students who are impacted most deeply.

If California is serious about eliminating disparities and improving performance in our education system, adequate school funding is critical.

This brief illuminates California's school funding shortfalls based on analysis in key areas like professional staffing and development, student-teacher ratios, per pupil spending, and student performance.

Comparisons of three similar high schools in California, Illinois, and New Jersey bring the data to life by showing where dollars are spent and how that translates into actual experiences that benefit students and their success. Each school serves an ethnically diverse population of about 1,100 students, of which more than 60 percent are considered low-income. The high schools are:

- Gunderson High School in the San Jose Unified School District (San Jose, California)
- Urbana High School in the Urbana School District (Urbana, Illinois)
- Garfield High School in the Garfield School District (Garfield, New Jersey)

	Gunderson High School (San Jose, California)	Urbana High School (Urbana, Illinois)	Garfield High School (Garfield, New Jersey)
DISTRICT	San Jose Unified	Urbana School District	Garfield School District
2017-18 EXPENDITURE PER PUPIL AS REPORTED BY DISTRICT	\$10,982	\$14,364	\$17,388
COMPARABLE WAGE INDEX COMPARED TO NATIONAL AVERAGE	29% higher	11% lower	24% higher
EXPENDITURES PER PUPIL ADJUSTED BY REGIONAL COSTS	\$8,493	\$16,210	\$13,997
LOCAL COST OF LIVING COMPARED TO NATIONAL AVERAGE	51% higher	18% lower	27% higher

Inadequate funding impacts all aspects of the school experience, affecting students, educators and staff alike:

- In the 2017-18 school year, the average student to teacher ratio for the three schools ranged from 11 and 20 students, at Garfield High and Urbana High, respectively, to a staggering 30 students at Gunderson High.
- When it comes to extra-curricular activities, students have a choice of 8 clubs or organizations at Gunderson High, 17 clubs and organizations at Urbana High, and 40 organizations and activities at Garfield High.
- There are far more credentialed support staff at both Urbana and Garfield High Schools, which include a student engagement advocate, school psychologist, student interventionist, social worker, teaching assistant and staff librarian, than at Gunderson High.

Over the last decade, California policymakers have put important school reforms in place to address equity issues, including updated college and career standards, a new finance system and a new accountability system. While these efforts are steps in the right direction, the accompanying increase in the funds that California schools receive has been inadequate to support student achievement, particularly for the most vulnerable students. State leaders need to use their political capital to make sure California invests more in schools, so students actually have the opportunity to succeed. At a minimum, that needs to include programs for kids ages birth to five in order to narrow the school readiness gaps that otherwise exist before young children enter kindergarten, and hiring approximately 208,000 more adults, staffing schools well enough so educators have reasonable workloads and can provide the academic and social-emotional support students need.

Introduction

When people come to California from states where school funding is a high priority, they are often shocked at what's missing from our schools. California schools have larger class sizes, fewer counselors, stripped-down course offerings, and fewer support services than most of the country. Without the needed funding to remedy these issues, many students lack the support they need to succeed.

California's status quo, with its educational shortcomings, would be unthinkable in many other states, where priorities and political will align to serve the educational systems and students above all. Since the 1960s, and accelerated by the passage of Proposition 13 in 1978, the Golden State's slow but steady decline in adequate funding for the public education system has created a jarring reality for its 6.2 million students, who could be better served. While policymakers have made important education reforms in California in recent years, the critical missing link remains funding for student success so that no one is left behind.

This brief illuminates California's school funding shortfalls based on critical fact analysis in key areas like professional staffing and development, student-teacher ratios, per pupil spending, and student performance. The brief also provides an eye-opening picture of what our schools might look like – in terms of experiences for both students and educators – if California's funding level was increased by the \$25.6 billion suggested in the *Getting Down to Facts II* funding adequacy studies released in 2018. According to the research, such an increase would provide the opportunities necessary for California's students to meet state standards and graduate college- and career-ready (Stanford University, 2018). Comparisons between three similar high schools in California, Illinois, and New Jersey bring the data to life by showing where monies are spent and how that translates into actual experiences that benefit students and their success.

People are at the heart of educational quality, but California's public schools are short-staffed.

For decades, student-to-staff ratios in California schools have consistently been among the worst in the United States. In an enterprise that is often described as a "people business," California schools generally operate with three-fourths the paid professional staff found in most other states¹. The problem is particularly acute for children in low-income communities where family members are least able to fill in the gaps with donations of time and money.

It would stand to reason that a resounding YES should follow the logical question "Are California schools adequately funded?" In response, policymakers often point to recent investments in public education and use 2011 as a baseline for talking about funding increases since the "great recession." Doing so makes it appear that schools have enjoyed a huge increase in funding when, in actuality, per-pupil funding levels have only been restored to their pre-recession levels which were among the country's lowest in 2007.

When compared to what other states provide, California's school expenditures are almost always found wanting. These comparisons are complicated, however, by how the numbers are derived and by differences among the states. In part, personnel costs (salaries and benefits) have a tremendous effect on the equation. In California, state data shows that average personnel costs are slightly higher, 82.5 percent, when compared to a national average of 80 percent.²

Funding does not go as far in California

In an often-cited comparison of per-pupil expenditures, *Education Week* documents that California's education spending lags behind that of most other large states. They provide data on both per-pupil expenditures and the percentage of total taxable resources spent on K-12 schools.

Education Week's methodology adjusts for regional cost differences, which is one way to take personnel costs into consideration. California's expenditure number is adjusted downward to reflect the higher labor market costs that California schools face. By looking at the earnings of non-educators, the University of Texas created a "comparable wage index" that measures the costs that schools face in hiring teachers. *Education Week* and others have adjusted states' per pupil spending amounts by this comparable wage index to measure the real purchasing power of each state's funding. Table 1, below, reflects that adjustment³ (*Education Week*, 2019). The *Education Week* comparisons are widely accepted, in part because they do account for the differences in personnel costs across the states.

Information published by the National Education Association (NEA Research, 2019.) uses an unadjusted per-pupil expenditure number. Considered along with two other data points, the NEA data illustrate how expenditure levels and the cost of living interact. In 2017, the average teacher salary in California was the second highest in the country. As Table 2 shows, the combination of high average teacher salaries and relatively low expenditure levels results in California having one of the nation's worst ratios of students per teacher.

California has one of the nation's worst ratios of students per teacher.

TABLE 1

The number of teachers depends on both salary levels and expenditures (2017-18)

STATE	STUDENTS ENROLLED PER TEACHER (RANK)	AVERAGE TEACHER SALARY (RANK)
California	22.7 (49th)	\$80,680 (2)
Florida	19.7 (46th)	\$48,168 (46)
Illinois	15.7 (34th)	\$65,721 (11)
New Jersey	11.8 (3rd)	\$69,917 (6)*
New York	11.6 (1st)	\$84,227 (1)
Texas	15 (23rd)	\$53,334 (27)
United States	15.8	\$60,477

Four states, Utah, Nevada, Arizona and California, stand out as serious outliers with pupil-teacher ratios over 22. Florida is the next highest.

Data: National Education Association, 2019 Rankings and Estimates. *NEA Estimate

At first glance, the data might suggest that California's teachers are well-paid among their peers in other large states – but several facts indicate that is not the case.

According to Salary.com, the cost of living in every major city in California is above the national average (Salary.com, 2019). In the San Francisco Bay Area, it is more than 50 percent higher than the national average.

At the same time, teachers' salaries are low compared to workers with comparable education levels. A 2016 report from the Economic Policy Institute (Allegretto & Mishel, 2016) estimates that California's teacher salaries were 85.5 percent of wages for college graduates in other professions and about 92 percent of compensation if pension and benefits are both taken into account.

Teacher compensation is not the only personnel cost in a school district, but it is the largest and the one for which comparable data are readily available. Similar data for administrators and counselors shows California schools with some of the highest student-to-adult ratios in those positions as well. In 2016, California ranked 47th out of all states in the number of pupils per administrator (Grissom & Sutchter, 2018) and it was last in the ratio of students to counselors.

California’s effort to fund schools also falls short

Another way to evaluate the financial support states provide to their schools is to compare their capacity or effort. According to National Center for Education Statistics and the U.S. Bureau of Economic Analysis, in the late 1960s Californians as a whole were contributing 4 percent of their personal income to schools; by 2015-16, that had declined to 3.2 percent, which translates into a difference of \$16.6 billion if Californians made a similar effort today as they did decades ago. In addition, if California invested at the national average level of effort, which is 3.7 percent, it would be spending an additional \$11 billion per year on its schools. Both Illinois and New Jersey fund a much higher level of effort, 4.5 and 4.9 percent, respectively. If California spent on K-12 education at a similar level of effort as these two states, it would spend an additional \$26.7 billion (Illinois effort) or \$37 billion (New Jersey effort).

TABLE 2
California’s education spending lags most other large states (2015-16)

STATE	PER-PUPIL EXPENDITURE ADJUSTED FOR REGIONAL COST DIFFERENCES (2016)	PERCENT OF TOTAL TAXABLE RESOURCES SPENT ON EDUCATION (2016)
California	\$10,281	3.2%
Florida	\$9,764	2.8%
Illinois	\$13,829	4.5%
New Jersey	\$16,543	4.9%
New York	\$19,697	5.0%
Texas	\$8,619	3.8%
United States	\$12,756	3.7%

Adjusting for regional costs differences, Education Week ranks California 39th in per-pupil expenditures and 40th (with several other states) for the portion of resources it devotes to education.

Data: Education Week, Quality Counts, June 5, 2019; National Center for Education Statistics and the U.S. Bureau of Economic Analysis

A look at what adequate funding buys at typical high schools and the impact on students and teachers

All these comparisons point to funding challenges for schools in California. But perhaps the most useful way to look at California’s support of its schools, and the impact on both students and educators, is to look at what

the money will buy and how that compares to what is provided in schools in other states. In an enterprise that depends heavily on people, that means looking at how many adults are on a school campus and what services they are able to provide to students.

The rest of this brief describes the staff and student experiences at three high schools located in California, Illinois and New Jersey. The schools are roughly the same size and serve similar students but differ greatly in the financial – and thus in the human – resources they have available.

Current funding creates workload burdens and limits learning opportunities for staff in a typical California high school

Gunderson High School, located in San Jose, California, is part of the San Jose Unified School District. Former principal Mark Camilleri describes his school as one of the most “typical” schools in the state in terms of students’ socio-economic status, ethnic diversity, and educational needs (such as special education and English learners).

In Illinois, Urbana High School has a similar percentage of students in need as Gunderson High and the district has around average funding.

While the Urbana School District receives significantly more funding than districts in California, the district is underfunded by Illinois standards. Based on that state’s new school funding formula – the Evidence-Based Funding Formula – Urbana receives only 74 percent of what the state has determined to be the district’s needs to meet state goals. Similar to research done for the Getting Down to Facts II research report, Illinois conducted an adequacy study. Officials then used the results of that study to develop a state funding formula that identified how much the state would need to spend to meet its goals. Each district’s funding target depends on the proportion of its students that are low income, English learners or students with special needs. In each budget, the state recalculates each district’s target funding level, and then fills a portion of the gap between their current funding and the funding target. Thus, if Urbana were actually receiving the funding level calculated by the state’s funding model, it would receive roughly an additional \$5,000 per student.

In New Jersey, a state that ranks third in the nation for its education funding, Garfield High School offers a somewhat different comparison. The Garfield School District is one of the 31 “Abbott” school districts in the state, so named because of a 1990 court order, that provides it with extra funding, including paying for Pre-K for all children.

All three high schools have about the same size student body, but the numbers of adults working on campus are dramatically different. That disparity has a direct impact on the opportunities educators can provide to their students.

A Tale of Three High Schools

This brief compares three high schools:

California: Gunderson High School in San Jose Unified School District

Illinois: Urbana High School in Urbana School District

New Jersey: Garfield High School in Garfield School District

Each school serves an ethnically diverse population of about 1,100 students, more than 60% of whom are low-income.

Adjusted for regional cost differences, the per pupil expenditure level for San Jose Unified School District is \$7,717 less, per pupil, than the funding level for Urbana School District, and \$5,504 less than Garfield School District. The San Jose Unified spending level, when adjusted for cost, is only 52 percent of the spending level in Urbana and 61 percent of the spending level in Garfield.

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Gunderson High staff members are each responsible for many more students

Based on state data, Gunderson High School had 60 teachers in 2017-18. Camilleri says that seven of those teachers were specifically assigned to the school's approximately 140 special education students. Typical class sizes hover around 30, so teachers have a caseload of about 150 students in their core subjects given that they generally teach five classes.

The state of Illinois does not report the number of teachers or the pupil teacher ratio at the school site level. The current (2019) staff directory for Urbana High lists 87 teachers, 15 of whom are designated as special education teachers. The reported average class size at the school in 2017-18 was 20. That would translate to an average caseload for each teacher of 100 students, assuming that all teachers teach five classes.

The state of New Jersey reports that there were 96 teachers at Garfield High in 2017-18, serving its student population of 1,051. That works out to an approximate 11 students per teacher. The state data does not provide an average class size or information about assignments such as special education.⁴

As striking as the differences in teacher numbers is the count of other adults on each campus. Along with the school principal, Urbana has three assistant principals, four counselors, and 12 other student support personnel (again based on the current staff directory). The latter group includes a variety of job titles dedicated to students' physical and mental health, as well as behavior issues.

Similarly, Garfield reports a student-to-administrator ratio of 53 to 1, which works out to 20 adults in administrative positions. That includes a school principal, two vice principals and other staff whose roles are not detailed.

At Gunderson, state data from 2017-18 puts the total number of certificated administrators at nine. Camilleri said that the school has a principal, three assistant administrators, three guidance counselors, one social worker and one student health aide. State data indicate the school also has 30 classified staff members. The total staffing levels are slightly better than the average for California's unified school districts.

California lags in certified staff

FIGURE 1
Gunderson, Urbana, and Garfield
High Schools Staffing Data

	Gunderson High School	Urbana High School	Garfield High School
TEACHERS	60	87	96
ADMINISTRATORS AND OTHER CERTIFICATED PERSONNEL	9 (including 3 administrators)	20 (including 4 administrators)	20 (including 3 administrators)
TOTAL CERTIFICATED STAFF	69	107	116

Teachers need more time to improve their practice

When asked how he would use more funding, Camilleri's first response was that he would like to be able to buy more of his teaching staff's time.

“It would be awesome for teachers to have more time to dive into an area of their teaching practice,” Camilleri said. “I would want about 10 more paid days at the start of the year and let them choose professional development based on their subject matter. Professional development is important so teachers have time to create their instructional plan, so they have the confidence and framework to be successful with all kids in the classroom setting.”

He notes that with the implementation of the state’s Common Core and Next Generation Science Standards, along with a new framework in history/social science, teachers are being called upon to innovate their practice – which requires additional, focused support. *The Getting Down to Facts II* research affirms Camilleri’s perception:

“The expectations include extraordinary learning about academic subjects from teachers and other educators, and equally extraordinary learning about how to teach those academic subjects. The standards also aim much more plainly to redress problems of inequity in public education than earlier standards did.

“The coupling of more ambitious content with more ambitious pedagogy has underscored the importance of professional learning. As one interviewee noted, ‘The thing is, those [prior] standards did not call for huge shifts in instructional practice in the way that the Common Core standards are calling for, yet we haven’t made that same kind of investment in professional development that we did back in the early 2000s.’”
(Finkelstein & Moffit, 2018)

For teachers in this San Jose school, where housing costs are extremely high, Camilleri said higher earnings could enable staff to live near the school rather than spending hours each day commuting. He worries less about the number of students each teacher has, contending that a caseload of 150 is manageable “if you have great teachers.”

The one exception, he said, might be smaller class sizes for 9th graders, “If they have supports and succeed in their first year in high school, they will be successful the rest of the way to graduation.”

Camilleri added that his teachers also need additional professional development related to supports and interventions for students identified as struggling, whether because of academics or behavior: “We need student supports to address social-emotional issues with our students. Teachers need to understand the whole child.”

In short, Camilleri says his teachers need time away from students in order to improve their practice. International comparisons show that U.S. teachers spend more hours each week in contact with students than is true in most other countries. For example, in a 2018 international study, U.S. teachers in grades 7-9 reported an average workweek of 46 hours, with 28 hours spent teaching. The other countries surveyed reported an average 20 hours teaching with a 38-hour workweek (NCES).

Teacher professional development is under-resourced in California and critical to student success

Despite the challenges presented by both the new curriculum and the expectations for equity, many districts report few “non-instructional days” (e.g., professional development or other planning time) for their teachers. State data show an average of 4.5 non-instructional days in California school districts in 2017-18.⁵

The financial impact of the great recession and the state’s subsequent movement away from categorical funding have combined to minimize the current investment in professional development in many districts. This is a departure from previous state policies. Through most of the 1990s, California provided extra funds to support school districts, adding up to eight days of professional development for educators. That incentive program

gradually dissolved due to both financial and political considerations. In 2001, however, California's adoption of its first set of academic content standards was accompanied by substantial, one-time funding to help districts with the initial costs of professional development for standards implementation.

Many educators, as well as researchers, agree with Camilleri's emphasis on teacher development. For example, in a school funding adequacy study conducted as part of *Getting Down to Facts*, researchers from the American Institutes for Research (AIR) (Levin, 2018) asked experienced educators their opinions regarding the resources needed to meet the student learning goals set by the California State Board of Education. They affirmed the state's typical school year of 180 days (compared to 175 days in Illinois and 185 in New Jersey). However, their recommendation is to pay teachers at all grade levels for an additional 10 days to provide more time for "planning, training and collaboration." This amounts to approximately a 5 percent increase in the average teacher work year in California. For the estimated 275,000 K-12 teachers in California, that would require an increased K-12 expenditure of about \$1.5 billion annually, or about \$245 per pupil.

At Garfield High in New Jersey, teachers are provided common planning time daily, as well as common prep times, according to the narrative section of the School Performance Report. The same report also provides some insights into how the school's teachers spend their time. For example, they provide tutoring before and after school – which is available to all students – in all the major subject areas. Extended year and summer programs serve students who need extra learning time and those who want additional preparation for Advanced Placement (AP) and dual enrollment classes. Teacher mentors are also available for students who are considered "at risk."

California has embarked on an effort to strengthen classroom instruction and integral to that effort is giving teachers time to work together. Recommendations regarding professional learning communities, ongoing collaboration time, coaching, and coteaching are all intentional ways to support educators' ability to improve and refine their practice. All require that teachers have time available outside of their regular classroom duties.

California schools need more support staff as well as teachers

Another school condition that affects teacher effectiveness is the number of support staff on campus. Students with extra learning needs, such as those with disabilities and English learners, require additional support and are often best served by teachers and others with specialized skills and knowledge. Students who face significant adversity in their lives outside of school, including experiencing trauma, being homelessness, or living in foster care, need supports that go beyond traditional instruction.

For the average school, the recommendation from the *Getting Down to Facts II* AIR study included such professional, certificated personnel as:

- Bilingual resource teachers to support English learners in order to improve their opportunities and outcomes;
- Special education program staff and specialists to provide necessary services to students with disabilities;
- Instructional support staff (such as credentialed librarians and instructional coaches) to help identify appropriate instructional resources for classroom teachers and support improvement;
- High school academic counselors to advise students about the preparation needed for various postsecondary options; and
- Pupil support staff (such as social workers and nurses) to address students' health, mental health and social-emotional needs.

All the staff listed above are recommended by the AIR study as part of a base program at a typical school, such as Gunderson High. The AIR panels also develop models for the extra resources needed in high poverty schools, which are defined as elementary and middle schools with more than 93 percent low income students and high schools with more than 86 percent low income students. The panels recommend funding augmentations of about 10 percent for elementary schools, 25 percent for middle schools, and about 16 percent for high schools to help accommodate those extra resource needs. For reference, in 2017-18, a total of 238 traditional comprehensive California high schools, out of 1,311 in the state, had poverty levels above 86 percent (Education Data Partnership, 2019).

Credentialed pupil support staff are much more numerous at both Urbana and Garfield High Schools than at Gunderson High. At Urbana High, the job titles include student engagement advocate, school psychologist, student interventionist, and social worker. The staff on campus to provide services to students with disabilities includes 15 teachers, a psychologist and a teaching assistant. Urbana High also has a staff librarian and one more academic guidance counselor than Gunderson High. The School Performance Report for Garfield High does not list the titles for the 17 certificated staff members who are neither teachers nor administrators.

Current funding shortchanges students' academic and extra-curricular experiences

Every student at Gunderson High takes a full complement of academic courses, with most designed to fulfill California's a-to-g course requirements for admission to the state's public universities. The school's students struggle, however, to "meet standard" as defined in the state's testing system.

Among the 11th graders who took the 2018 state assessments, about 41 percent met the state standard in English language arts (ELA) and just 21 percent did so in mathematics. This compares to statewide results of 56 percent and 31 percent respectively on the two tests. Notably, the test results showed wide gaps between low income and non-low income students including:

- Among low income students, 31 percent met standard on the ELA test and 14 percent did so in math.
- Among non-low income students, 60 percent met standard on the ELA test and 36 percent did so in math.

Based on the state's measures, as reported on the California School Dashboard, 91 percent of the class of 2018 at Gunderson graduated on time but just 31 percent left high school prepared for college and/or career. On these two indicators, the achievement gaps were less pronounced.

A specific mathematical relationship does not exist between more resources and student outcomes. However, the differences in students' experiences at both Urbana High and Garfield High, as described below, provide a view of the learning opportunities that more resources could provide, which in turn better support student engagement and success.

NAEP Results – CA students perform below their peers

Due to a lack of easily comparable state tests, an accurate comparison of school-level student test scores is not possible. State-level testing results on the National Assessment of Educational Progress (NAEP) provide some perspective regarding the skill levels of incoming high school students. For 2017, NAEP shows that about a third of 8th grade students in Illinois scored at or above proficient in both English language arts and mathematics. California's scores were several percentage points lower and New Jersey's were substantially higher.

2017 NAEP Results

Percent of 8th graders at or above proficient

	National	California	Illinois	New Jersey
ENGLISH LANGUAGE ARTS	—	32%	36%	47%
MATHEMATICS	—	32%	36%	47%

Comparisons of NAEP schools from 2017 8th grade math scores

ALL	34%	29%	32%	44%
FREE LUNCH	18%	15%	18%	22%
NOT FREE LUNCH	48%	47%	46%	56%
GAP	30%	32%	28%	34%

Comparisons of NAEP schools from 2017 8th grade reading scores

ALL	36%	32%	36%	47%
FREE LUNCH	21%	19%	22%	26%
NOT FREE LUNCH	48%	51%	48%	59%
GAP	27%	32%	26%	33%

Fewer staff mean less course variety for students

Data regarding course offerings and participation are not systematically collected in California, nor in Illinois or New Jersey. Any examination of staffing and course offerings is thus anecdotal and specific to individual schools, and sometimes school districts. Gunderson, Urbana and Garfield High Schools offer just three examples of how course offerings can differ depending on local staffing and local decisions.

Gunderson High places a notable emphasis on college preparatory courses. The number and type of courses in each subject area reflect the school and district commitment to provide students with the chance to complete California's a-to-g course requirements (for eligibility to enroll at the state's public universities). But in this relatively small school, with its high number of students per teacher, the course selections are also rather limited. That is particularly striking when Gunderson is compared to its two better-resourced counterparts in Illinois and New Jersey.

Math: At Gunderson, the eight-person math department offers nine courses. Urbana's 12-person math department offers 12 courses, including a summer course for incoming 9th graders to prepare them for Algebra 1. Students at Garfield can choose from a variety of math sequences with several opportunities to accelerate their learning, and can also select from five additional math electives.

Gunderson's catalog offers students the binary choice of an AP and a non-AP class in most core subjects, including math, English, history/social studies and science.

Language: Students studying a second language at Gunderson choose between Spanish and French, and can do so for up to four years. Gunderson actually stands out among high schools in San Jose Unified in offering two languages instead of just Spanish. In Urbana, German is also available, as it was in San Jose Unified decades ago. Similar to Gunderson, at Garfield students can take up to four years of either Spanish or Italian.

Career Technical Education: Gunderson students interested in Career Technical Education (CTE) participate through a San Jose Unified School District partnership with the Silicon Valley Career Technical Education Center (SVCTE) and can also enroll in CTE courses at the local community college. The course catalog at Urbana lists a more robust choice of applied technology and business courses, a dual enrollment program with the local community college and AP offerings in each core academic area. At Garfield the practical arts options on campus are more varied and students can also take courses at the local CTE center or community college.

Arts: When considering the arts, the contrast is perhaps most striking. Gunderson's visual arts offerings in 2017-18 included a drawing class and two CTE pathways in Arts, Media and Entertainment. The current school catalog also lists digital photography, woodworking, and cartooning and animation. All these courses qualify as a-g requirements. Camilleri and parents at Gunderson were thrilled that the school had a band in 2018-19 and 40 students were able to participate. Asked to create a wish list for the school, a group of Gunderson High parent leaders put support for arts programs, including drama and band, high on the list because of the impact they can have on student motivation. The PTA attempts to provide some funds for art supplies and band instruments, but wishes the school funded these as part of its responsibility to provide arts education. That would free the parent organization to sponsor more family engagement activities and would also recognize the difficulty of raising funds in a school with so many families struggling to make ends meet.

Urbana's students can take introductory and advanced courses in drawing, painting, photography, sculpture, and electronic media. The music offerings include band, choir, orchestra and jazz band, with performance and academic enrichment opportunities built into the course descriptions. The list is similar at Garfield.

In their exploration of strategies for improving student achievement, the educators who provided insights for the AIR study pointed to the importance of learning opportunities outside of core subjects. They saw courses such as the visual and performing arts (VAPA) as a cost-effective strategy that fosters student engagement. Many research studies show that participation in arts education also improves student achievement. Schools also must offer the arts, based on state law, and California's school districts are expected to report on student access to a broad course of study that includes not only the arts but science, world languages, CTE, health, and physical education.

The California School Dashboard includes a local indicator related to this priority, which provides only a district level summary. In 2018, San Jose Unified School District reported that only a portion of students have access to art, music and other electives, stating that "funds and the length of the school day are our primary barriers" preventing that access.

Key to offering these opportunities is having enough teachers to cover both the core academic classes and a broad selection of more engaging classes, in addition to being able to make some class sizes moderately smaller.

Limited extra-curricular activities reflect budget realities

Much research also points to the importance of extra-curricular activities in order to keep students engaged in school (Holloway, 2000). Many high schools in California, such as Gunderson, have sustained after-school athletics, and they pay stipends to the teachers and outside coaches who run those teams. However, with no extra funds to pay advisors for other clubs and activities – such as academic enrichments and community-based experiences – schools struggle to find inspired teachers and other adults willing and able to donate their time. At Gunderson, students have a choice of eight clubs or organizations.

Meanwhile, at Urbana, the list of 17 different clubs and organizations in the course catalog range from Math Team to Gay-Straight Alliance to Habitat for Humanity.

In its online school report card, Garfield claims to offer its students a choice of 40 organizations and activities. Clubs such as Book Club, Debate Club, and the Math League engage students who have special interests. Some of the other listings are tied to classes, such as chorus, while others provide participation in community events and student government.

Student Engagement	Gunderson High School; CA	Urbana High School; IL	Garfield High School; NJ
SPORTS TEAMS	17	19	22
CLUBS AND ORGANIZATIONS	8	17	40

Increased staffing is a critical component for improving California schools

In schools, people make the difference. That is why the most important resource to measure and address in pursuit of quality improvements is the number and qualifications of professionals on campus, and teachers in particular.

California is among four outlier states whose total pupil-teacher ratio exceeds 22 to 1. According to the National Education Association (NEA Research, 2019.) the national average was 15.8 students per teacher in 2017-18. In California, the ratio was 22.7 to 1.

The AIR professional judgment panels recommends that the ratio at typical schools be 15 to 1, slightly less than the national average. Achieving that ratio would require California as a whole to have one-third additional teachers (approximately 124,000) and instructional support personnel (approximately 84,000) than now work in the state's schools. The total expenditure for teachers and support personnel is about \$41 billion now (not counting pension costs). Increasing that by one-third would cost about \$13.5 billion more annually. That prospective increase in base funding does not include the AIR study estimates for extra resources to meet the needs of the highest-poverty schools.

Greater investments, beginning with preschool, will support student success

This brief has detailed some of the impacts that low staffing levels have on educators and students in a typical high school in California, as juxtaposed against high schools in comparison states. High schools are just one segment of California's public school system, and their entering students are products of at least nine years of prior school experience. Much research points to the importance of investing in children far earlier in order to prepare them for success in high school and beyond.

In California, the recommendations for additional investments in the early years, based again on *Getting Down to Facts*, include:

- Access to quality early learning programs, particularly for high-need students, in order to narrow the readiness gaps that otherwise exist before children even enter kindergarten.
- Earlier identification and services for children 0-5 with disabilities, a strategy that can reduce special education costs later on.
- Smaller class sizes in the earliest grades, particularly for students from low-income families and those who are learning English.
- Assigned teachers for VAPA and STEM at elementary schools to make sure students receive foundational instruction consistent with state standards.
- Support for educators so that they are more effective at engaging families as their children's first teachers.
- Expanded time, such as after-school and summer programs, to provide more support for learning for students who need it, particularly in the elementary and middle grades.
- More instructional and pupil support staff across all grade levels.

One reason researchers can point with confidence to the value of such investments is because they have proven to be effective in other states and countries. In addition to the deficiencies California's children experience in high school, the vast majority arrive at their high school without having received any of the resources or experiences that have been identified as critical to promoting future success. And conditioned by decades of under-resourced schools, many Californians do not even recognize what our schools and children are missing.

What we learned ... again: California schools need more funding

In 2013, in an effort to promote spending money in ways that best meet students' needs, California revamped its approach to education funding to put expenditure decisions into the hands of local communities. The theory behind this approach, the Local Control Funding Formula, is that those closest to schools and students know what they need and what will work best. The state is also building a System of Support intended to provide educators across the state with resources to help them make good decisions about what they and their students need. While these efforts are taking steps in the right direction, there has not been an adequate increase in the funds that California schools receive. And this is a critical component to ensuring student achievement and success.

Improving public schools is certainly not just a matter of giving them more money. Schools need to be clear about their goals for student success and strategic about using resources to achieve them. But improvement is nearly impossible if school staffing is insufficient to provide the level and quality of service that research tells

us is critical to support student achievement. Too few adults on a campus results in onerous caseloads and educators having little time for professional learning or for collaboration to improve instructional practice. Understaffing also affects the quality of student experiences at school and their ability to access extra support when they need it.

Given decades of underfunding, many Californians find it difficult to even imagine what adequate resources could provide to schools. What if this state invested at a level closer to Illinois, for example? What could happen if California committed to spending what is needed to adequately support schools that serve the state's neediest children, as New Jersey has done? What would it mean to remove the constant problem of "not enough" from the thinking of education stakeholders? Perhaps then we would have the capacity to design and implement the new strategies and systems necessary to prepare all of California's high school graduates for college and career success in the 21st Century.

To achieve this goal, state policymakers will need to use their political capital to invest more, so that students actually have what they need to support their success. State leaders can continue to focus on lauding the reinvestment in schools over the last several years after the great recession, but doing so without simultaneously acknowledging that California is behind the rest of the nation in staff, services and supports for students only masks the problem. Without these opportunities, and true political leadership to counteract decades of under resourcing public schools, it is California's vulnerable students, and ultimately society as a whole, that pays the price.

Credits

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Children Now is on a mission to build power for kids. The organization conducts non-partisan research, policy development, and advocacy reflecting a whole-child approach to improving the lives of kids, especially kids of color and kids living in poverty, from prenatal through age 26.

Learn more at www.childrennow.org

School and District Level Data Sources

Staffing and Student Demographic Information

- Gunderson High School – California Department of Education DataQuest website: <https://data1.cde.ca.gov/dataquest/>
- Urbana High School – Staffing information estimated based on school website staff directory, <http://uhs.usd116.org/parent-info-center/staff-directory/> Student demographics from Illinois School Report Card 2018.
- Garfield High School – 2017-18 New Jersey School Performance Report, <https://rc.doe.state.nj.us/Searchfor-School.aspx>

School Information about Courses, Activities, and Staff Titles

The websites for each school provide resources, including staff directories, course catalogs and student handbooks that describe these aspects of the schools in somewhat different ways.

School District Financial Data

- San Jose Unified School District – www.ed-data.org
- Urbana School District – <https://www.illinoisreportcard.com/district.aspx?source=profile&Districtid=09010116022>
- Garfield School District – <https://rc.doe.state.nj.us/report.aspx>

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Endnotes

- 1 Based on fall 2016 School and district staffing and enrollment, Digest of Education Statistics, National Center for Education Statistics.
- 2 From Ed-Data.org state expenditure tables. For example, the statewide average percent of expenditures spent on salaries and benefits for 2017-18 was 82.5%.
- 3 EdWeek adjusts Per-Pupil Expenditures as follows: Average statewide per-student spending, adjusted for variations in regional costs using the NCES Comparable Wage Index 2016, as updated by Lori Taylor of Texas A&M University. Education Week Research Center analysis using: U.S. Census Bureau, Public Education Finances: Fiscal Year 2016.
- 4 Note that pupil-teacher ratios are always lower than average class sizes as teachers who are not in charge of a classroom, such as instructional coaches and resource teachers, are included in the ratio.
- 5 Extracted from a data analysis of the California Department of Education J-90 database (<https://www.cde.ca.gov/ds/fd/cs/>).