



GETTING DOWN
—TO FACTS II—

Current Conditions and Paths Forward for California Schools

SUMMARY REPORT | 2018





Current Conditions and Paths Forward for California Schools

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Summary Report by:

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Preface

California's education system has seen substantial policy shifts over the past decade, potentially benefiting the state's 6.2 million students. This in-depth research report serves as a "state of the state," with the goal of providing a common set of facts to inform discussions and education policy development going forward.

This is the second time that leading researchers have come together to consolidate evidence on how to improve education in California. Ten years ago the state's dynamic system was clearly due for a revamp, but where to begin? That question could only be answered with data. The need for a fact-gathering mission gave birth to the first comprehensive *Getting Down to Facts* report in 2007 to take a critical look at all things K-12.

The first groundbreaking report informed state lawmakers in their work to adopt many reforms that were necessary to put California's education system on the right track. At the same time, an economic recession brought a chilling effect to the state's resources and made implementation of measurable improvement an even bigger challenge. Thanks to a healthy recovery in recent years, many reforms began to take hold.

Now, ten years later, after a range of educational policy changes and as the state embarks on the next chapter of its public education system, *Getting Down to Facts II (GDTFII)* once again provides the facts.

GDTFII provides in-depth analysis of the state education system as of 2018 and looks at what is working well and where improvement is still needed. The report's findings are contained in 36 separate studies thoroughly researched by over 100 leading academics from top research institutions across California and the United States. What are the most important things to know about education in California today?

Key Findings

- California's education system is moving in the right direction but is still in need of capacity building to support a decade of reforms. Over the past decade a multitude of reforms have resulted in some improvement. But, the system still must ensure that educators and other practitioners have the skills, information and materials they need to put major reforms more fully into practice.
- Large achievement gaps persist in California by race, ethnicity, income, and English learner (EL) status.
- California's children are behind before they enter Kindergarten. The system needs a continued focus on closing achievement gaps through multiple approaches including enhanced early childhood education.
- Funding levels remain short of adequate for schools in California given the goals of state policies.
- Untouched critical funding issues could destabilize the system. Pensions, special education, and facilities each have the potential to worsen inequities if not addressed.
- California produces very little information on what makes an excellent education for its own students. Despite investments in data systems in California, the state still falls short of what other states have developed.

Understanding California Education Today to Support Improvement for Tomorrow

Over the past 10 years, California has made significant changes to its K-12 public school system, including adopting new academic standards, transforming its approaches to funding and accountability, and shifting toward a more decentralized system of governance and finance. Ten years is a relatively short amount of time for systemic improvements to achieve their desired long-term impact. However, as Californians elect a new governor and superintendent of public instruction, the time is right to ensure we build on what is working and modify as needed for the next 10 years.

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In 2007, the original [Getting Down to Facts \(GDTF\)](#) project brought together stakeholders with researchers to provide research-based information to support improvements in California’s schools. Those studies highlighted concerns about the state’s prescriptive, complex, and opaque finance and governance systems, and the lack of appropriate infrastructure to support continuous improvement in education. They paved the way for many of the recent reforms relevant to schools, including the Local Control Funding Formula (LCFF), Propositions 30 and 55 (which raised taxes specifically to fund schools), and streamlined governance structures in the state.

The *Getting Down to Facts II* effort has again convened and coordinated a broad set of researchers, educators, policymakers, and other stakeholders to address key policy questions related to the state’s continuous improvement efforts. This project asks: What do California school systems look like today, after a decade of policy change? What could and should California school systems look like to ensure we are graduating all students with the preparation necessary to succeed in college, career, and community? And what steps could and should we consider to support continuous improvement at the classroom, school, system, and state levels and to improve student outcomes? We expanded upon the original GDTF project in multiple ways, such as by including standards implementation, data availability, counseling and health services, and state government capacities. We also include



preschool, in light of evidence that achieving the state’s goal of college and career readiness at graduation requires attention to learning opportunities prior to kindergarten as well as during school.

Getting Down to Facts II comprises 36 studies, summarized in 19 research briefs, which are available on www.gettingdowntofacts.com. In this overview, we cannot cover all of the useful information in the reports; those interested in specific education topics should look at the relevant reports and briefs. Our goal here is to summarize high-level conclusions from the project, drawing on timely and significant research findings. In particular, we organize this overview around the project’s three main findings:

1. During the past decade, California’s education system has undergone major reforms that have resulted in improvements, but the system is still in need of capacity building—ensuring that educators and other practitioners have the skills, information, and materials they need—to support putting those major reforms more fully into practice.
2. Large achievement gaps by race, ethnicity, income, and English learner (EL) status persist in California and need a continued focus through multiple approaches, including enhanced early childhood education.
3. Funding levels for schools in California have been improving but remain short of adequate levels given the goals of state policies. Moreover, funding reforms left critical issues unresolved: pensions, special education, and facilities each have the potential to destabilize the system or worsen inequities if not addressed.



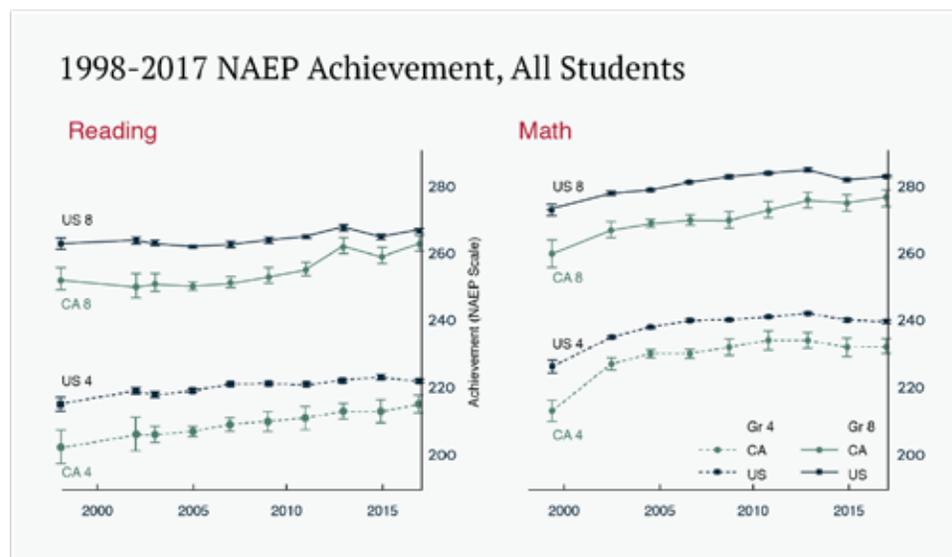


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While California still lags the nation in achievement in reading and math, even when accounting for income and racial/ethnic differences, the state’s students have been performing better over time and have been increasing at a faster rate than the rest of the nation (Reardon et al., 2018). As shown in Figure 1, test scores have been increasing in both reading and math. Moreover, graduation rates have been increasing, while disciplinary actions have been decreasing.

The *Getting Down to Facts II* research studies found broad support for many of the recent changes to California education policy from superintendents, principals, teachers, and state and regional education leaders. In particular, California has adopted new standards and aligned assessments; it has revamped the school finance system to provide greater transparency in funding levels across districts, greater funding to districts serving higher-cost students, and greater flexibility to districts in how to spend their funds; and it has created an information system that links some education data

Figure 1: Test scores have been increasing in Reading and Math, but California lags behind the national average



Data: National Assessment of Educational Progress, 1998–2017



and provides the opportunity to better understand student needs and program effects. Moreover, California charter school policy has led to a diverse sector of schools that, on average, have had relatively positive effects on learning for charter school students from groups who traditionally have poorer educational outcomes, though the broader effect of charter schools on students in noncharter schools is still unknown.

In each of these areas, infrastructure has been improved and stakeholders have recognized the potential of the reforms. However, in each case, the state falls short of realizing that potential because of capacity limitations. For example, to realize the gains from the new standards and assessments, instruction needs to adapt and improve. To make the best use of the flexibility provided by the new finance system, district leaders need additional knowledge and skills. And although the state's education data system is now richer, access to the data is severely limited, significant gaps in data remain (especially for pre-kindergarten), and the California Department of Education does not have the capacity to use the data effectively to guide policy decisions. In addition, while some other states have linked other data to their education systems—such as data on higher education and social services—California's K-12 education data are not linked. Thus, we are missing an opportunity to provide important information to educators and policymakers that could lead to more efficient and effective provision of services. Finally, to maintain a charter school sector that benefits students, we need more information on the costs to existing schools and more guidance and support for charter school authorizers.

In the next sections, we summarize where California stands with regard to these issues and the efforts needed to ensure continued progress toward meeting education goals.

Standards and Assessments

During the past decade, California has adopted and implemented new academic standards and retooled its summative assessments of student learning. These new standards have broad support. *Getting Down to Facts II* researchers interviewed many state leaders and school superintendents and a plea to “stay the course” emerged frequently in both sets of interviews ([Moffitt et al., 2018a](#)). Moreover, teachers, including those in schools with high-needs students, reported in surveys that they perceived improvement in the alignment between instructional materials and California's grade-level standards, and between district professional development and teachers' needs. They also reported improvement in the quality of district professional development and in school-level professional learning communities ([Moffitt et al., 2018b](#); [Finkelstein, 2018](#)). Large majorities of teachers reported using the state's standards documents in deciding what curriculum or objectives to teach, what instructional materials to use, and which activities or teaching strategies to use ([Moffitt et al., 2018b](#)).

Nonetheless, the need for additional supports was also evident. California teachers who teach in schools with higher concentrations of low-income students or English learners were less likely to report that their instructional materials are well-suited to the needs of their students ([Moffitt et al., 2018b](#)). Principals also cited barriers to making faster progress, including difficulty finding quality substitute teachers, a perceived overload of initiatives, and educators' inexperience and/or discomfort with honestly sharing their needs and practices with peers ([Finkelstein, 2018](#)). While about two-thirds of teachers express satisfaction with their professional learning opportunities ([Finkelstein, 2018](#)), only 40% of math teachers and about half of English language arts teachers reported receiving professional learning with an explicit and sustained focus on aligning materials or teaching activities to standards ([Moffitt, 2018b](#)).

In addition, while California schools have many sources of support from an expanding set of nonprofit and for-profit education service providers, districts, schools, and teachers have difficulty assessing quality and selecting the best available options. Identifying instructional materials and professional development that are well-aligned with classroom needs and choosing among them can be time consuming and overwhelming (Campbell & Polikoff, 2018). Those carrying out this work expressed a need for help sorting through available supports to identify quality and alignment with standards.



Interviews revealed that many superintendents look to the state for help and information, more so among superintendents from districts with high concentrations of English learners. While the California Department of Education is a logical provider and curator of instructional supports, current conditions in the CDE constrain the agency's ability to support frontline practice ([Moffitt et al., 2018a](#)). The CDE has limited in-house subject-matter expertise; reductions in CDE staff have occurred disproportionately in portions of the agency devoted to instructional support; and state-level staff reductions over time have been significantly higher in California than in other states. In addition, average salaries in the CDE are lower than in high-enrollment county and district offices, making it difficult to attract and retain subject-matter experts. School principals who participated in focus groups conducted by WestEd said that they were initially unaware of where to find, and how to use, the wealth of state resources that support standards implementation. However, after the state resources were located (or provided to them) and professional development on how to use them was delivered, principals saw the resources as helpful examples of standards-aligned instruction and pedagogy ([Finkelstein, 2018](#)). Thus, although the CDE currently is not an efficient source of instructional support for schools, it could potentially avoid duplication of efforts across the state, thereby improving the quality and effectiveness of the supports districts use.

Finally, although bilingual and dual language instruction is rising with the passage of [Proposition 58](#) and the implementation of the [CDE's Global California 2030 Initiative](#), the state still does not have a reliable home language assessment system. The CDE is making progress by creating a Spanish language assessment, but that assessment is not, to date, going to be used for accountability purposes nor are there assessments in other key languages. The continued use of high-stakes tests in English likely undermines efforts to develop a bilingual and biliterate population ([Umansky, 2018](#)).

Local Control Funding Formula

In 2013-14, California overhauled its outdated school finance system by enacting the Local Control Funding Formula (LCFF). The LCFF established base, supplemental, and concentration grants to districts, providing more funds to districts with a greater share of high-cost students. (See [Bruno, 2018](#), and [Koppich and Humphrey, 2018](#), for a full description of the LCFF.) The transition to the LCFF was helped by additional revenue from Propositions [30](#) and [55](#): not only has average per-pupil spending for all students increased, but the new formula has meant more funds are directed to higher-needs districts and students.



Nearly all school district officials view the LCFF favorably ([Koppich & Humphrey, 2018](#)). Those interviewed in case study districts reported a variety of advantages to the LCFF, especially the elimination of most categorical grants, which constrained how dollars could be spent. Most educators appreciated the increased attention to the targeted student groups and the recognition of the special needs of foster youth.

In addition, although identifying the causal effects of the LCFF on student learning is difficult, initial research provides evidence that LCFF-induced increases in school spending led to increases in high school graduation rates and academic achievement, particularly among low-income and minority students ([Johnson & Tanner, 2018](#)). The *Getting Down to Facts II* research estimates that a \$1,000 increase in district per-pupil spending experienced in grades 10-12 led to a 5.9 percentage-point increase in high school graduation rates. On average among low-income children, a \$1,000 increase in district per-pupil spending experienced in 8th through 11th grades led to increases in 11th-grade math test scores equivalent to approximately seven months of learning and increases in English language arts test scores equivalent to approximately three months of learning. The evidence suggests that the additional money, targeted to students in need and provided with fewer strings attached, made a difference in student outcomes and narrowed achievement gaps ([Johnson & Tanner, 2018](#)).

While increased resources have accompanied the LCFF implementation efforts, the *process* requirements that accompany the LCFF can strain districts ([Koppich & Humphrey, 2018](#)). In particular, the template that districts have to complete (the Local Control and Accountability Plan or LCAP) is considered cumbersome, leading districts to produce lengthy and largely unreadable documents. The LCAP is particularly burdensome for small rural districts because they tend to have lower administrative capacity for implementation and for developing multiple metrics for planning and monitoring of progress ([Koppich & Humphrey, 2018](#)). District leaders report that the template is more about compliance and less like a coherent strategic plan. Districts also have struggled to attract participation in LCFF-related activities, particularly among nonparent community members and traditionally underserved individuals ([Marsh, 2018](#)). Such participation is mandated under both state and federal law, though without criteria or accountability for its quality.

The state intended county offices of education (COEs) to play a central role as part of a comprehensive System of Support to ensure that every district has access to assistance. Beginning in 2013 with the implementation of the LCFF, COEs were given two new responsibilities: (1) to provide technical assistance to districts for completing their LCAPs, and (2) to determine whether the completed LCAP meets state requirements. This System of Support also includes the CDE and the California Collaborative for Educational Excellence (CCEE) and is part of the state's new accountability system, which is still in the early stages of implementation. Interviews with district chief business officers indicate that many districts find their COE helpful in the LCFF process, but other COEs still lack the skills and staff capabilities to be helpful. ([Willis et al., 2018](#)). To fulfill their new roles, COEs will have to learn how to support the process of continuous improvement at the local level and to coordinate with other governmental and nongovernmental support providers.





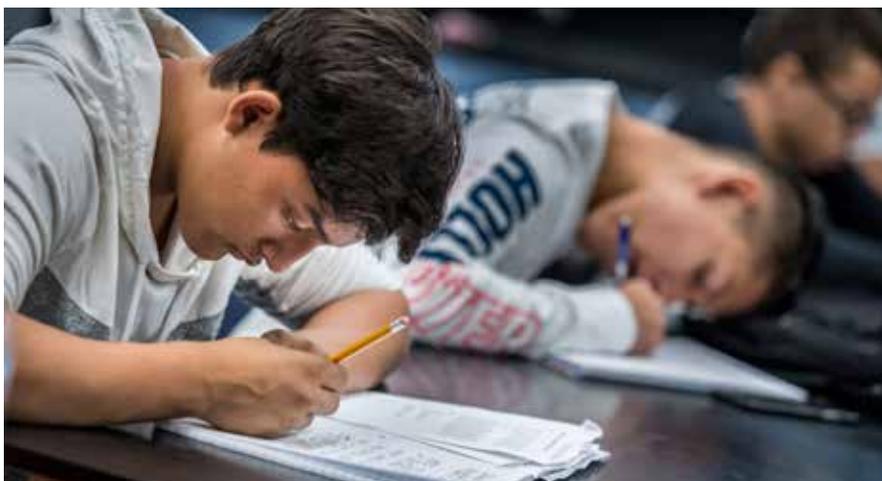
Data Systems

Information about students, their experiences, and their learning help educators and policymakers determine which needs are greatest and which approaches are most effective. The original *Getting Down to Facts* project identified data and information infrastructure as a crucial need. Since then, California has improved its education data system in several ways. For example, the CDE maintains the CALPADS data system, which now includes some, though not all, of the student- and staff-level information that school districts collect. These data can be useful for both system accountability and research, allowing educators and researchers to assess the effects of policies and practices, and to locate schools and districts with particular needs.

However, despite investments in data systems in California, we still fall short of what other states have developed. The research shows that local educators are often unable to access and use data effectively. This lack of use stems from the datasets not being tied to other information, such as local financial data, that would allow more informed local decision making. Moreover, the lack of a user interface that would make it easy for smaller districts to query and use the data is a significant obstacle ([Hough, Byun, & Mulfinger, 2018](#)).

California's K-12 information systems also do not connect with other sectors, such as preschool, higher education, and social services. Instead, the state has a patchwork of data systems that are not integrated. At the most basic level, more information sharing within and among sectors could make it easier for service providers to offer more efficient and timely supports to students and better coordinate their services. For example, Allegheny County, Pennsylvania, has connected academic and human services–related data to help school staff understand students' mental health and child welfare involvement, while helping social workers and caseworkers understand children's school performance, attendance, and disciplinary history ([Phillips, Reber & Rothstein, 2018](#)). Similarly, data integration between pre-kindergarten and K-12 would make it possible to examine the effects of educational experiences in early childhood and later school outcomes. Likewise, data integration between K-12 and postsecondary education would provide information on options for students with different interests and skills and make college access and success easier for many students.

Finally, the data that do exist are unusually difficult for researchers to access. As a result, we cannot answer basic questions on the status of California education that might help inform policymakers' and educators' decisions, such as evaluating the effects of programs or systems such as teacher preparation. As one example, any assessment of the supply and distribution of teachers across





schools and districts should rely on individual student- and teacher-level data that enable researchers to understand what kinds of students, schools, and districts have access to teachers of different experience levels, certification and education levels, and, ideally, measures of performance and effectiveness. These types of data are often difficult to access in California.

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The limitations of California’s data system are not the result of technological difficulties. Modern software technology makes it possible for governments at all levels to use the data they already collect to improve service coordination and delivery, and to conduct research and evaluation to inform policymaking. California is well behind other states in taking advantage of this opportunity. Because decision makers cannot access information on California, they must rely on analyses from other states. California produces very little information on what makes an excellent education for its own students.

Improved statewide data systems, with appropriate privacy protections, and increased capacity to use the data productively would support many different purposes—from service provision to predictive analytics to program evaluation, all of which would help agencies and policymakers better serve Californians ([Phillips, Reber & Rothstein, 2018](#)).



Charter Schools

California's charter schools serve a growing number of students and provide a variety of schooling options. While we were not able to evaluate the effect of charter schools on traditional public schools in the state, the available data provide evidence that in urban areas and for traditionally lower-performing student groups, students are learning moderately more in charter schools than they would in the traditional public schools they would likely otherwise attend. (The study uses "days of learning" as a metric of academic progress: one day of learning approximates the advancement in knowledge that a student would gain from attending one additional day of school.)

Not all students performed better in charter schools. The study, for example, estimated that black students from low-income families learn the equivalent of 36 more days of reading and 43 more days of math when attending charter schools, while white students learn seven fewer days of reading and 72 fewer days of math when attending charter schools ([Raymond, 2018](#)). California charter schools also appear to be improving over time, in part because less effective charter schools are more likely to close than other charter schools ([Raymond, 2018](#)). Moreover, California charter schools have provided innovations in areas such as use of technology, school structures, and labor relations ([Mumma & West, 2018](#)).

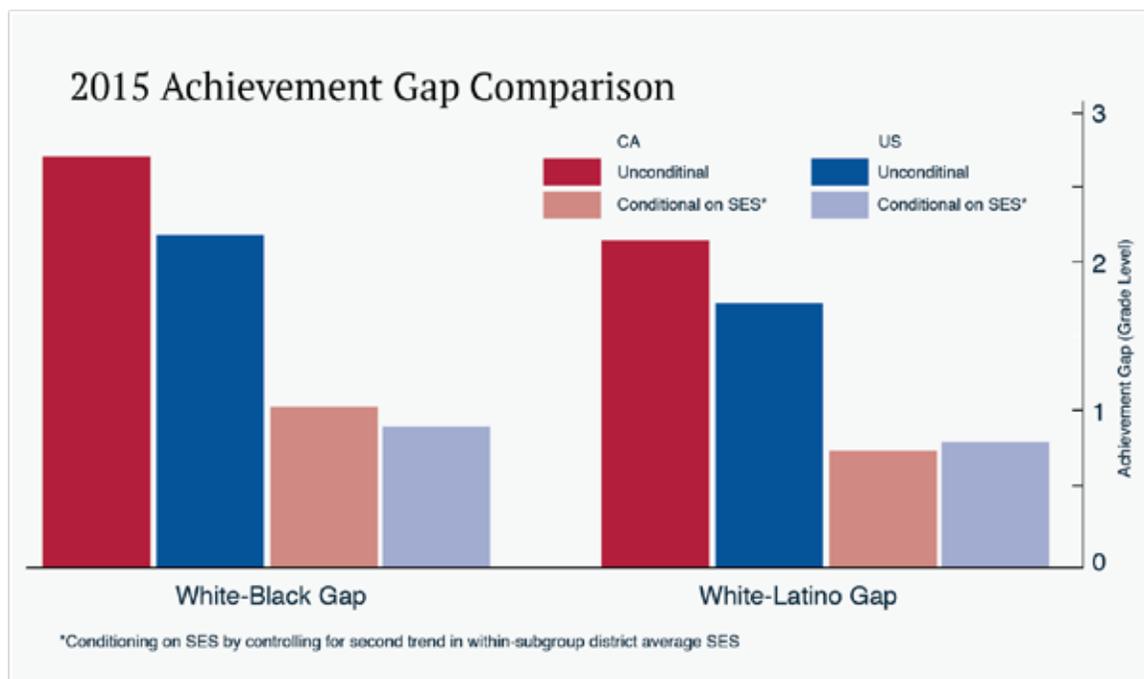
While California charter schools are offering benefits to some groups of students, the expansion of charter schools may impose costs on local school districts. In addition, the accountability system for charter schools is in transition. School districts are the most common authorizer of charter schools in California and are also responsible for oversight and re-authorization. Authorizers receive less state funds to fulfill these responsibilities than those in many other states ([Mumma & West, 2018](#)). State law also does not outline a process for renewal that is distinct from the initial petition approval process. As a result, authorizers are directed to look only at what is in the new petition (i.e., forward-looking promises) rather than at past performance, which may limit the accountability of charter schools for their past performance, though lower performing schools do still close at higher rates. Temporary regulations establishing performance criteria for charter renewal were in place previously, but were based on California's prior assessment system and are no longer in use. Charter accountability will now be tied to LCAP plans, which may provide stronger guidance for reauthorization in future years ([Mumma & West, 2018](#)).



Large achievement gaps by race, ethnicity, income, and English learner status persist in California and need a continued focus

Although *Getting Down to Facts II* researchers have documented the steady progress California has made on student test performance, they also have found that California continues to lag the nation, with both lower average scores and greater disparities among student groups relative to other states (Reardon et al., 2018). In more affluent California districts, student achievement levels are similar to the average performance in affluent communities nationally, but California students in nonaffluent districts score, on average, nearly a full grade level behind their national counterparts. These patterns related to income are consistent when the same comparisons are made within each racial/ethnic group. As seen in the graph below, differences between black and white students, and Latino and white students, are also greater in California than in most other states. However, the graph also demonstrates that family income is more predictive of achievement differences than race/ethnicity. The size of the gap shrinks noticeably when student socioeconomic status is considered (see the light-colored bars in the graph)—and California’s white-Latino gap becomes smaller than that in other states. But the black-white gap persists and exceeds the gap in other states.

Figure 2: Students’ socioeconomic status has a substantial impact on achievement gaps by race/ethnicity



Data: [Stanford Education Data Archive](#) (SEDA). SEDA contains student achievement on state standardized tests from all students in the nation and links them to a common scale. A grade level is defined as the nationwide average increase in learning in one academic year.

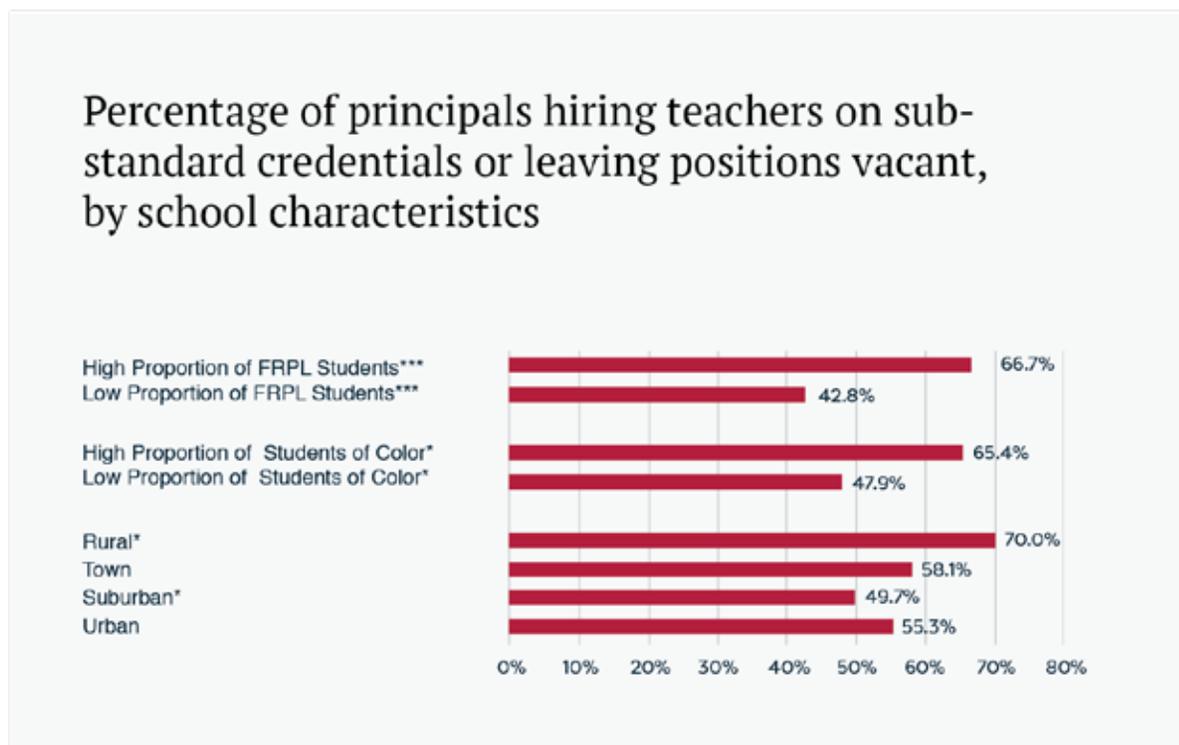


Inequality in K-12 Schooling

At least part of these inequalities is likely due to unequal education quality in K-12 schools. For example, schools serving less advantaged students tend to have more difficulty filling teaching positions and, as a result, employ fewer experienced and appropriately credentialed teachers and principals (Goldhaber, Strunk, Brown, Chambers, Naito & Wolff, 2018; Darling-Hammond, Sutchter & Carver-Thomas, 2018). Shortages of educators exacerbate the problem because schools serving the most vulnerable populations suffer the most when there is an insufficient supply of teachers. Since 2014-15, 80% of California districts have reported acute shortages of teachers, especially in special education, mathematics, and science, with growing shortages of bilingual teachers as well (Darling-Hammond, Sutchter, & Carver-Thomas, 2018).

These staffing difficulties are most severe in the districts with the highest-needs students, in districts with lower wages (particularly lower wages for early career teachers), and in districts located further from teacher education programs (Goldhaber et al., 2018). As an example, in the *Getting Down to Facts II* survey of California principals, principals serving schools with higher proportions (top quartile) of students of color and students from low-income families reported unfilled vacancies or the need to hire teachers with substandard credentials more often than their peers in schools with fewer low-income students or students of color (bottom quartile). (See Figure 3 below from Darling-Hammond, Sutchter, and Carver-Thomas, 2018.) Vacancy rates across districts show a similar trend, with school systems serving more disadvantaged and lower-performing students tending to have more vacancies. In addition, districts with higher salaries, higher starting salaries (relative to salaries

Figure 3: Teacher shortages disproportionately affect schools serving historically disadvantaged students



Data: Learning Policy Institute analysis of Getting Down to Facts II 2018 Principal Survey conducted by RAND. Note: The percentage of students who qualify for free or reduced-price lunch (FRPL) can be used as a proxy measure for the percentage of students living in poverty.



for more experienced teachers), and a location closer to teacher education programs have fewer vacancies ([Goldhaber et al., 2018](#)). These results provide suggestive evidence that increased starting wages and locating teacher education programs closer to districts with high-needs students can reduce inequalities.

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Differences in access to high-quality educational opportunities are also evident when comparing English learners to other students in the state ([Santibañez & Snyder, 2018](#); Umansky, 2018). Almost four out of 10 K-12 students in California comes into the school system as an English learner, and many ELs in California do not have equitable access to grade-level core content instruction. This occurs partly because ELs may be tracked into lower-level content area classes and because English language development classes often crowd out content instruction. The reduced access to content affects students’ academic outcomes, likelihood of graduating, and postsecondary outcomes. Compounding the unequal access to content, reclassification processes of ELs that affect content access are unevenly applied across the state. While new statewide reclassification criteria are currently being hashed out, the state’s requirement that students reach a content area assessment threshold—in addition to English proficiency thresholds—likely creates unnecessary and inequitable barriers to students being reclassified as fluent English speakers, particularly at the upper-grade levels ([Umansky, 2018](#)). English learners can also benefit from teachers who speak their home language, yet bilingual teachers are among the most difficult teachers to recruit, and shortages of bilingual teachers are often felt most strongly in school districts serving lower-income students. Overall, many teachers in California are not being sufficiently and adequately prepared to meet the unique challenges of teaching ELs. For example, better-prepared teachers would have had the opportunity to tailor their instruction more appropriately to different levels of English proficiency in the classroom and engage in more effective formative assessment practices ([Santibañez & Snyder, 2018](#)).





Limited Access to High-Quality Early Education

California districts with predominantly low-income students lag behind similar districts in other states primarily because of lower school-readiness levels among entering kindergartners ([Reardon et al., 2018](#)). Differences in access to high-quality early childhood education programs likely contribute to the readiness gap. Black and Latino children and dual language learners are less likely to have attended preschool than white children ([Stipek & Pizzo, 2018](#)). And children from low-income families are more likely to have child care that is license exempt, not having to meet any quality standards.

Addressing the large achievement gap will thus require attention to problems of access and quality in the state's early childhood education (ECE) system. California, once a leader in early childhood education, now lags behind most states. ECE in California is an underfunded, complex, fragmented system that is inefficient for providers and families. Deborah Stipek and her research team ([2018](#)) document a range of concerns, including the minimal, misdirected, and uneven requirements for early childhood professionals. Also, in contrast to most other states, California providers have few incentives to pursue quality improvement. Quality child care is unaffordable or inaccessible for a large proportion of families and does not meet the needs of those working in low-wage jobs with irregular work schedules.

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One of the most serious problems is the low wages and benefits of child care workers in California, 58% of whom depend on at least one public income support. As a result of low wages, the turnover rate is extremely high, losing the positive effects of stable caretakers on children's development.

Preschool is also disconnected from K-12 education. Districts endeavoring to create greater alignment between preschool and elementary school have to navigate multiple funding sources, different management and accountability systems, and very different teacher preparation standards and programs. Adding to the data concerns discussed above, children's pre-kindergarten experiences are not tracked in California, so elementary schools have little information about children's early education experiences that might be used to make curriculum and instructional decisions. This is particularly problematic for students with disabilities. Because California has a poor record of identifying these children before kindergarten, elementary schools must address the serious needs of children who should have been identified as qualifying for special education and provided resources earlier.

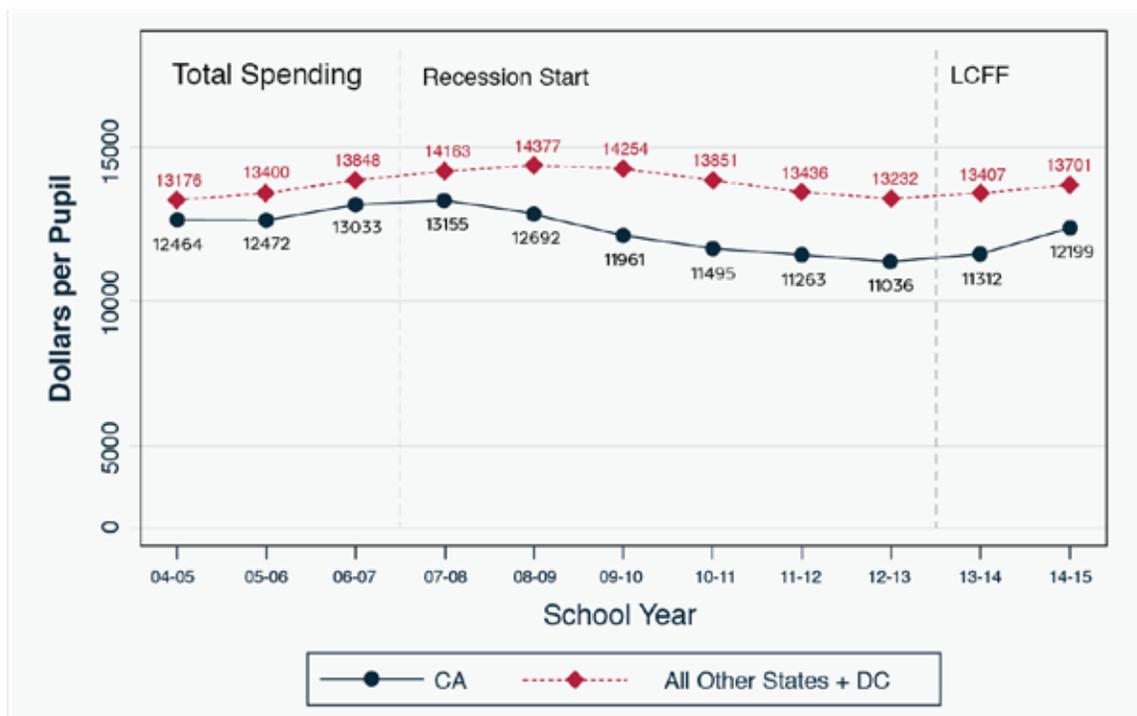




Funding levels for schools in California have been improving, but remain short of adequate, and pensions, special education, and facilities obligations could destabilize the system or worsen inequities if not addressed

In adopting the Local Control Funding Formula, California moved from one of the least transparent school funding systems in the country to one of the most straightforward. In addition, increased revenue has helped California school district resource and expenditure levels not only recover from their post-recession lows, but also reach higher levels in 2016-17 than at any point since at least 2004-05 (Bruno, 2018). However, per-pupil spending in California remains consistently below the national average, particularly in the aftermath of the Great Recession. This difference has closed somewhat under the LCFF, but it is still substantial.

Figure 4: Although average per-pupil spending has increased under LCFF, thanks in part to increased state revenue for schools, California still spends less than the national average



Data: Local Education Agency (School District) Finance Survey (F-33) Data, 2004-05 through 2014-15. Per-pupil amounts are based on fall enrollment and expressed in 2017 dollars.



Relatively Low Spending and Fewer Educators

Researcher Jennifer Imazeki (2018) compares California to several states of comparable size and demographics, showing that the average school revenue per pupil in California is substantially above that in Florida, on par with Texas and Ohio, but lower than in Illinois and substantially lower than many northeastern states such as New York (see chart below). However, at least in part due to the higher cost of living and wages of college graduates in California, average teacher salaries are higher in California than in these comparison states except for New York. As a result, given California's relatively low spending on schools, the number of students per teacher (a number smaller than average class size) is much higher in California (22.5) than in any of the comparison states. In New York, for example, it is under 13; but even in the other comparison states, it is below 17.

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The shortage of resources combined with high salaries has resulted in California having far fewer adults in schools.

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Figure 5: California compares favorably to some states and less favorably to others in a comparison of state school characteristics, 2016

	Student - Teacher Ratio	Average Teacher Salary	School Revenue Per Pupil	Instruction as Percentage of Current Expenditures	NAEP Percent as or Above Proficient (2015)			
					Gr 4 Math	Gr 8 Math	Gr 4 Reading	Gr 8 Reading
California	22.53	\$77,179	\$10,484	59.5%	29.2	27.1	27.8	28.4
Texas	15.23	\$48,882	\$10,064	61.4%	44.0	32.3	30.6	28
Florida	16.11	\$40,717	\$8,067	60.9%	42.0	26.1	38.5	30.3
New York	12.65	\$81,255	\$24,342	70.1%	34.9	30.9	35.7	32.8
Illinois	16.69	\$56,991	\$12,856	58.7%	36.6	32.2	35.5	35.1
Ohio	16.02	\$47,560	\$10,760	58.9%	44.6	35.4	37.8	35.5

Data: National Education Association (Rankings & Estimates: Rankings of the States 2016 and Estimates of School Statistics 2017). Dollar values adjusted with the NCES Comparable Wage Index to account for differences in cost of living.



More broadly, the shortage of resources combined with high salaries has resulted in California having far fewer adults in schools than most other states. As one example, California ranks at or near the bottom of all states in the percentage of K-12 public school students with access to various types of health care or mental health services inside their school buildings ([Reback, 2018](#)). Prior research studies have linked school-based health care and mental health services to better child behavior in school, reduced emergency department usage by children, higher rates of educational success, and lower rates of teen births. Yet, California ranks 39th for school nurses per student and 50th for school counselors per student. California ranks 43rd for Medicaid spending per student on school-based physical and mental health services. Fewer than half of California's public school students have regular access to physical health care in their schools, and fewer than half of California's elementary school students have access to mental health care in their schools.

At the same time, California's youth have the same or higher needs than students in more well-resourced states. It would not take too great an investment to provide the necessary resources to better address these needs. One *Getting Down to Facts II* study estimates that it would cost less than \$100 per pupil annually for the state to expand physical and mental health services so that every school provides at least basic coverage ([Reback, 2018](#)).





Estimating Adequate Spending

Getting Down to Facts II also includes a study aimed at estimating the spending required to provide an adequate education; that is, how much do California districts need in order to educate their students to the state's standards, accounting for the very different populations of students they may serve? Using a professional judgment approach, one of the most common methods for estimating adequacy, Jesse Levin and his research team (2018) gathered judgements from a range of informed stakeholders about the educational needs of adequate schools and then estimated the costs of providing these resources to students.

The researchers conclude that while public schools in California spent about \$66.7 billion on school operations in 2016-17, an additional \$25.6 billion— 38% above actual spending—would have been necessary for all students to have had the opportunity to meet the goals set by the State Board of Education. On a per-pupil basis, the adequate district-level cost was estimated to average about \$16,890 per student—the amount of money viewed as needed to allow students in a typical California school to meet the state's goals if it were spent effectively. In contrast, the comparably defined actual California district-level spending was only \$12,204 per student. Moreover, Connecticut, New Jersey, New York, and Massachusetts all spent more than the adequacy estimate of \$16,890 per-pupil, and each of those states has a smaller percentage of low-income students and English learners to support than California does. Overall, this estimate combined with persistent achievement gaps and the low number of adults per student in California schools all point to the need for additional funds in order to reach state goals.

In keeping with the large achievement gaps across student groups in California, the estimated costs of an adequate education are greater for districts with great student need; the per-pupil cost of adequacy for a high-poverty/high-EL program design is estimated to be \$3,300 to \$4,000 above the base model for elementary and middle schools, and \$2,400 above the base model for high schools. The current spending levels in the highest-poverty school districts are also furthest from predicted adequate levels. Districts with higher poverty rates tend to have higher costs for adequacy; and in California, that cost difference is greater than spending differences. In the two highest-poverty quartiles, actual spending was approximately \$5,700 to \$6,200 less than predicted adequate cost. It is worth noting that this project focused on the cost of adequacy in K-12 schools; additional work addressing the cost of providing high-quality child care and preschool would be useful.

These estimates differ from the first version of the Summary Report due to some double counting included in the initial calculation of actual spending in 2016-17. Please see the technical report for a detailed explanation of the update. <http://gettingdowntofacts.com/publications/what-does-it-cost-educate-californias-students-professional-judgment-approach>



Three Priority Areas in School Finance

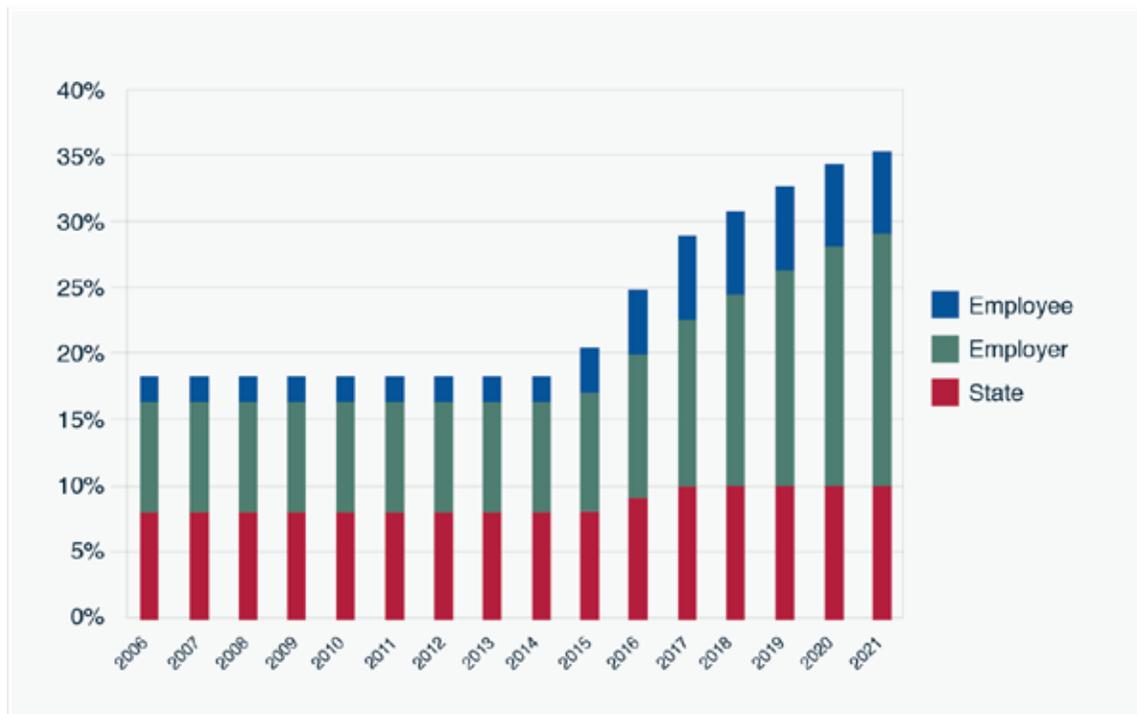
Although the LCFF substantially overhauled California’s K-12 school finance system, *Getting Down to Facts II* identified three particularly pressing areas that the reform largely ignored. Importantly, all three have the potential to strain the system and exacerbate inequalities: pensions, special education, and facilities.

Pensions: California’s teacher retirement system provides a defined-benefit pension for retirees. Pension contributions depend on the cost of providing benefits for current workers and carryovers from plan operations in previous years.

Past contributions have not been nearly enough to cover the costs, resulting in the California State Teachers’ Retirement System (CalSTRS) currently phasing in substantial increases in the contributions made by teachers, school districts, and the state of California. By law, the total contribution rate will nearly double by 2021, to more than one-third of teacher salaries. Moreover, current actuarial calculations indicate the need for even higher rates, which has resulted in additional contribution increases. These expenditures are drawing and will continue to draw substantial funds from the operations of schools, reducing the quality of education available to students unless substantial additional investments are made.

As discussed by researcher Cory Koedel ([2018](#)), there are no easy solutions and all options going forward will involve some trade-offs.

Figure 6: Realized and projected CalSTRS statutory contributions by employees, employers, and the state rise between 2006 and 2021, in percentage points of salaries



Data: CalSTRS’ actuarial valuation reports and Assembly Bill 1469.
Notes: Projections are as legislated by Assembly Bill 1469.



Special Education Finance: *Getting Down to Facts II* researchers interviewed approximately 50 chief budget officers from a randomly chosen set of school districts, and all the CBOs identified special education funding as one of their three biggest concerns ([Willis et al., 2018](#); [Koppich & Humphrey, 2018](#)). Although the LCFF eliminated most other categorical spending, special education as a program was kept intact.

As highlighted by researchers Paul Warren and Laura Hill ([2018](#)), the strength of the current special education funding formula is that it does not create incentives for districts to misidentify children with learning issues. Funding formulas based on the number of students with disabilities may create incentives to identify students as disabled and place them in unnecessarily restrictive settings. However, keeping special education apart from the LCFF has also meant that special education funding has not kept pace with district costs. The federal government mandates a process for selecting the education program for special education students, but neither federal nor state special education funds fully cover the costs of these programs. As a result, most districts use general operating expenditures to cover some portion of special education costs. This share has increased as LCFF base grants have increased while special education allocations have remained constant. As just one example, although districts are required to provide preschool programs for special education students, the current formula does not adequately address costs associated with providing these services.

However, by reprioritizing school-based programs and clarifying guidelines for school districts' Medicaid billings, the California Department of Health Care Services could help school districts gain access to more federal dollars for providing much-needed health-related services to special education students.





Facilities: School facilities is another area that went untouched as other parts of the state’s K-12 funding system were reformed. Researchers Eric Brunner and Jeffrey Vincent (2018) provide a comprehensive overview of the history of school facilities funding in California, showing that for several years, overall spending on the state’s school facilities has remained close to the national average and similar to the level of spending in comparison states such as New York and Washington. However, state funding for facilities has become increasingly regressive.

California’s system of school facility finance has often been referred to as a “three-legged stool,” with statewide bonds, local general obligation (G.O) bonds, and developer fees all playing an important role in school facility finance. Although the state, through the LCFF, largely determines district operational spending, local school district voters have far greater control over facilities funding through bond measures on local ballots. In recent years, the percentage of total facility funding coming from statewide bond revenue and developer fees has declined significantly, in part because no statewide bonds were issued to support K-12 school facilities between 2007 and 2015. Due to these declines, the share of facilities funding derived from local G.O. bond revenues rose from 50% during the 1998–2006 period to 65% during the 2007–2015 period.

As a result, California has wide disparities in school facility funding that are systematically related to school district property wealth. The disparities in school facility funding between high and low wealth districts have led to concerns that California’s School Facility Program (SFP), which operates on a first-come, first-served basis, tends to favor wealthier and larger districts that are better positioned to provide the required matching funds.

The two largest SFP programs are the New Construction and Modernization programs. Brunner and Vincent found no systematic relationship between district wealth and SFP new construction funding, but SFP funding for modernization is meaningfully higher for larger, wealthier districts. This regressive pattern disparity is not necessarily difficult to fix, and Brunner and Vincent review potential policy improvements.



Conclusion

Getting Down to Facts II covers a range of education issues and aims to provide a base of knowledge to support dialogue and policy making in the state for the coming years. The findings from the studies are too numerous to summarize in this document. Instead, we highlight the most salient findings.

First, many of the reforms of the past 10 years have had positive effects on the school system and have broad stakeholder support. These include improved standards and assessment, local control funding, and initial data system development. Emerging research also provides evidence that California's policies to increase spending on high-needs students have benefited the lowest-performing student groups.

Yet, we still have work to do. In each of these cases, further capacity building is essential for realizing the full potential of the reforms. Schools and teachers need additional instructional materials and supports, particularly for teaching English learners, and they need help curating the vast available materials and other resources for quality and alignment. Many district leaders also need help in allocating resources effectively, given districts' new flexibility under the LCFF. A pre-kindergarten data system needs to be created, and the K-12 data systems need to include links to other datasets that provide information on early childhood, higher education, and social services. In addition, these data systems need to be far more accessible if they are to support education decision making. Charter school authorizers need better guidance for accountability and renewal decisions.

Second, while California has seen meaningful gains in student achievement and reductions in some disparities across groups, achievement gaps are still striking and larger than in the rest of the nation. The K-12 education system itself perpetuates those gaps, as evidenced by the unequal distribution of educators across schools. At the same time, many of the disparities across groups are evident when children enter kindergarten, which points to the need for high-quality early childhood education. California's early childhood education system is complex and fragmented. It has relatively low funding, licensing standards, and educator preparation requirements. In addition, no statewide data

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Overall, recent state policy reforms have created the right foundation. Yet, we still have significant work to do.

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system exists to provide information that can be used to target funding efficiently and to support quality improvements.

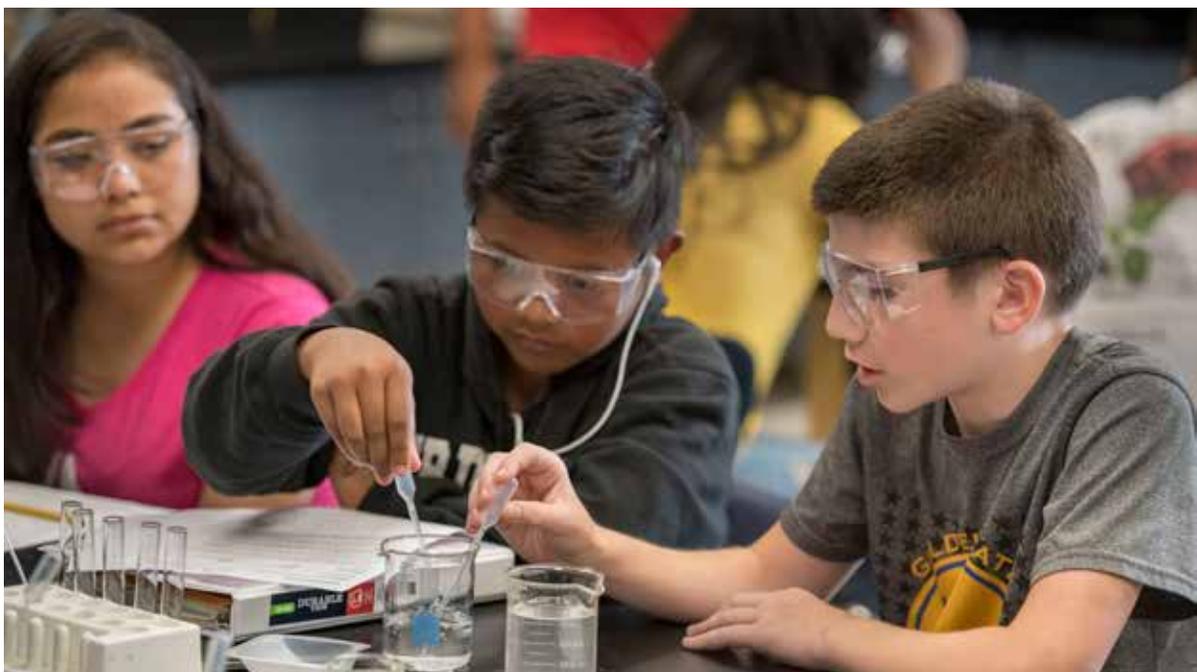
Finally, education spending in California is low relative to that in many other states, and this low spending is particularly consequential given the high wages of college graduates in the state and the linked need to pay teachers a competitive salary. As a result, California employs fewer adults in schools, resulting in higher class sizes and limited supplemental services. One study estimated that California would need to spend approximately a third more to provide schools with adequate resources to help students reach the state's educational goals. Moreover, California faces three additional funding challenges. First, the pension system is drawing substantial funds away from



school expenditures. Without intervention, this drain on system resources will continue to expand, requiring expenditures approximately equivalent to one-third of teacher salaries by 2021. Second, special education funding is similarly draining funding from districts' general operating expenditures, in part because the local control funding reforms were not accompanied by reforms to special education funding. Finally, facilities funding in California is largely regressive, resulting in much greater funding in high wealth areas. All of these funding issues could be mitigated by reforms at the state level.

Overall, recent state policy reforms have created the right foundation. Yet, we still have significant work to do. Much of that work requires the state to commit time and resources to focus on building educator knowledge and skills in areas that currently limit student success. Not only teachers, but also school, district, and state leaders need the information and skills for effective decision making. The need to build capacity can be undercut by insufficient funding—compared to other states, schools in California are significantly understaffed, and issues such as retirement costs are diverting district resources from the classroom. Early childhood education also needs attention. Achievement gaps are evident before students start school, and recent education reforms have left the state's low-quality early childhood education system untouched. These three areas—(1) capacity building through professional development, technical assistance, and data systems; (2) finances; and (3) early childhood education—represent the major policy challenges of the coming decade.

A decade ago, the original *Getting Down to Facts* project called attention to a host of problems with California's school finance and education governance structures. The intervening years have witnessed substantial reforms and improvements, but much work is left to do. The *Getting Down to Facts II* studies aim to provide policymakers and others with information needed to do that work most effectively. Education policy reform is not a one-time undertaking. We anticipate that the information provided in these reports will prove useful for decision making during the next few years, but will need updating in the years to come. Given the magnitude and pace of changes to education policies and the number of topics deserving deeper analysis, we hope these types of studies are a regular feature of an improving school system.



GDTFII Lead Researchers

Governance

Neal Finkelstein, WestEd. Insights on Standards Implementation in California's Schools

Alicia Grunow, Improvement Collective, and Heather Hough, Policy Analysis for California Education. Towards a Common Vision of Continuous Improvement for California

Heather Hough, Policy Analysis for California Education. Using Data for Improvement: Learning From the CORE Data Collaborative

Jeffrey R. Henig and Melissa Arnold Lyon, Teachers College, Columbia University. Federal Policy Meets the "California Way"

Julia E. Koppich, J. Koppich & Associates, and Daniel Humphrey, Independent Consultant. The Local Control Funding Formula (LCFF): What Have We Learned After Four Years of Implementation?

Julie A. Marsh, University of Southern California. Taking stock of stakeholder engagement in California's Local Control Funding Formula: What can we learn from the past four years to guide next steps?

Susan L. Moffitt, Brown University. (1) State Structures for Instructional Support in California, and (2) Frontlines Perspectives on Instructional Support in the Common Core Era

Meredith Phillips, University of California, Los Angeles. Sarah Reber, University of California, Los Angeles, and Jesse Rothstein, University of California, Berkeley. Making California Data More Useful for Educational Improvement

David N. Plank, Stanford University. Building a System of Support for School Improvement

Morgan S. Polikoff, University of Southern California. In Need of Improvement? Assessing the California Dashboard after One Year

Jason Willis, WestEd. In the Era of the Local Control Funding Formula: The Shifting Role of California's Chief Business Officers

Martin West and Kirsten Slungaard Mumma, Harvard University. Charter School Authorizing in California

Student Success

Harry Brighthouse, University of Wisconsin-Madison. Aims and Purposes of a State Schooling System: The Case of California

Michal Kurlaender, University of California, Davis. College Readiness in the Era of Common Core

Macke Raymond, CREDO. An Update to the 2014 CREDO study *Charter School Performance in California*

Sean F. Reardon, Stanford University, and Christopher Doss, RAND Corporation. A Portrait of Educational Outcomes in California

Randall Reback, Barnard College, Columbia University. Investments in Student Health and Mental Health in California's Public Schools

Sarah Reber, University of California, Los Angeles, and Demetra Kalogrides, Stanford University. Setting the Stage: Trends in Student Demographics and Enrollment in California

Sherrie Reed, University of California, Davis; Shaun Dougherty, Vanderbilt University; and Michael Kurlaender, University of California Davis. A Portrait of California Career Technical Education Pathway Completers

Deborah Stipek, Stanford University. Early Childhood Education in California

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A Systems View of California's Teacher Education Pipeline

Linda Darling-Hammond, Learning Policy Institute.
Teacher Shortages in California: Evidence about Current Status, Sources, and Potential Solutions

Dan Goldhaber, American Institutes for Research and University of Washington, and Katharine O. Strunk, Michigan State University. Teacher Staffing Challenges in California: Exploring the Factors that Influence Teacher Staffing and Distribution

Jason A. Grissom, Vanderbilt University. Assessing Equity in School Leadership in California

Lucrecia Santibañez, Claremont Graduate University. Teaching English Learners in California: How Teacher Credential Requirements in California Address their Needs

Leib Satcher, Learning Policy Institute. Learning to Lead: Understanding California's Learning System for School and District Leaders

Eric S. Taylor, Harvard University. Can Teacher Evaluation Programs Improve Teaching?

Finance

Eric J. Brunner, University of Connecticut, and Jeffrey M. Vincent, University of California, Berkeley. Financing School Facilities in California: A Ten-Year Perspective

Paul Bruno, University of Southern California. District Dollars 2: California School District Finances, 2004-5 through 2016-17

Jennifer Imazeki, San Diego State University. Adequacy and State Funding Formulas: What Can California Learn from the Research and National Context?

Rucker Johnson, University of California, Berkeley, and Sean Tanner, WestEd. Money and Freedom: The Impact of California's School Finance Reform on Academic Achievement and the Composition of District Spending

Cory Koedel, University of Missouri. Pensions and California Public Schools

Jesse Levin, Iliana Brodziak de los Reyes, and Drew Atchison, American Institutes for Research. What Does It Cost to Educate California's Students? A Professional Judgment Approach

Paul Warren and Laura Hill, Public Policy Institute of California: Revisiting Finance and Governance Issues in Special Education

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Dr. Loeb is the director of the Annenberg Institute and professor of Education and International and Public Affairs at Brown University. Before moving to Brown, Dr. Loeb was the Barnett Family Professor of Education at Stanford University. She was the founding director of the Center for Education Policy at Stanford and co-director of Policy Analysis for California Education. Susanna's research focuses broadly on education policy and its role in improving educational opportunities for students. Her work has addressed issues of educator career choices and professional development, of school finance and governance, and of early childhood systems. Susanna has been a member of the National Board for Education Sciences, a senior fellow at the Stanford Institute for Economic Policy Research, and a faculty research fellow at the National Bureau of Economic Research. Susanna led the research for both Getting Down to Facts projects for California schools.



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Dr. Edley is the president and, with Ann O'Leary, co-founder of the Opportunity Institute. He co-chaired the congressionally chartered National Commission on Education Equity and Excellence (2011-13), appointed by Secretary Arne Duncan. Dr. Edley was Dean of UC Berkeley Law School (2004-13) and continues there as the Honorable William H. Orrick, Jr., Distinguished Professor of Law. He teaches Administrative Law and Education Law. Before Berkeley, he was a professor at Harvard Law School for 23 years, where Professor Gary Orfield and he co-founded the Harvard Civil Rights Project. Chris served in White House policy and budget positions under presidents Jimmy Carter and Bill Clinton. He also held senior positions in five presidential campaigns: policy director for Michael Dukakis (1988); and then senior policy adviser for Al Gore (2000), Howard Dean (2004), Barack Obama (2008), and Hillary Clinton (2016).



Dr. Jennifer Imazeki, Director of the SDSU Center for Teaching & Learning and Professor of Economics at San Diego State University

Dr. Imazeki is a Senate Distinguished Professor and Professor of Economics with a passion for teaching and education at all levels. She is currently serving as the Director of the SDSU Center for Teaching and Learning, working with faculty across the university to improve their pedagogy. She has worked on several projects to train middle and high school teachers in using economics to teach Common Core skills, and she created an Economics for Teachers course for SDSU undergrads working toward their single-subject teaching credential in social science. This dovetails with her research on the economics of K-12 education, including work on school finance reform, adequacy and teacher labor markets. She has published several articles on education policy in a range of professional journals, books and policy outlets, and provided analysis for multiple court cases related to educational adequacy. She is a member of the American Economic Association, and has served on the Board of Directors of the Association of Education Finance and Policy, the AEA's Committee on the Status of Women in the Economics Profession, and the AEA's Committee on Economic Education.



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Dr. Stipek is the Judy Koch Professor of Education, the Peter E. Haas Faculty Director of the Haas Center for Public Service at Stanford University and has served as Dean of the Stanford Graduate School of Education. Her scholarship focuses on early childhood education. She is particularly concerned about policies and practices that afford children of color and children living in poverty the educational advantages of their more affluent peers. Her current focus is on strategies to develop young children's basic academic skills while supporting their social-emotional development and motivation. In addition to her scholarship, she was a Society for Research in Child Development Fellow, working in the office of Senator Bill Bradley; she served for five years on the Board on Children, Youth, and Families of the National Academy of Sciences and is a member of the National Academy of Education. She currently chairs the Heising-Simons Development and Research on Early Math Education Network.

About Coordinating Institutions

Stanford University

Stanford University, the same entity that coordinated the 2007 *Getting Down to the Facts* report, has once again convened an expert education research team for *Getting Down to Facts II*. Through state-of-the-art research and innovative partnerships with educators worldwide, Stanford University was well equipped to convene this multi-faceted research investigation to understand how California is implementing education reforms and to identify challenges that may need to be addressed by policymakers and educators.

Policy Analysis for California Education (PACE)

Policy Analysis for California Education (PACE) is an independent, non-partisan research center led by faculty directors at Stanford University, the University of Southern California, the University of California Davis, the University of California Los Angeles, and the University of California Berkeley. In coordination with Stanford University, PACE assisted with the coordination and dissemination of the *Getting Down to Facts II* report to bring evidence to bear once again on the current conditions and paths forward for California's schools.

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GETTING DOWN —TO FACTS II—

Current Conditions and Paths Forward for California Schools

Key Findings

- California's education system is moving in the right direction but is still in need of capacity building to support a decade of reforms. Over the past decade a multitude of reforms have resulted in some improvement. But, the system still must ensure that educators and other practitioners have the skills, information and materials they need to put major reforms more fully into practice.
- Large achievement gaps persist in California by race, ethnicity, income, and English learner (EL) status.
- California's children are behind before they enter Kindergarten. The system needs a continued focus on closing achievement gaps through multiple approaches including enhanced early childhood education.
- Funding levels remain short of adequate for schools in California given the goals of state policies.
- Untouched critical funding issues could destabilize the system. Pensions, special education, and facilities each have the potential to worsen inequities if not addressed.
- California produces very little information on what makes an excellent education for its own students. Despite investments in data systems in California, the state still falls short of what other states have developed.