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Investing in California's
Public Education

The Path to Equitable Reform



About this Report

This report was a collaborative effort of the CTA Institute for Teaching and the Economic Policy Institute.



The CTA Institute for Teaching's mission is to enhance, support, and sustain quality teaching and public schools for all California's students. Formed in 1967 as a 501(c)(3) nonprofit organization, the CTA Institute for Teaching has undertaken a massive effort to support educators to bring their vision to life through the awarded of educator grants that have awarded over \$7 million to California classrooms over the years.

The CTA Institute for Teaching exists to strengthen and facilitate collaboration between teachers and the community for public education excellence, while empowering educators to develop and implement innovative, student-centered practices that improve

learning outcomes for all students. Through meaningful resources and professional support, the Institute helps teachers grow, lead, and thrive throughout their careers.

This report is part of a new effort by the Institute for Teaching to continue its longstanding commitment to enhancing California's public schools. By evaluating the most effective ways to improve funding for our schools, the Institute aims to identify strategies that will ensure every classroom and school has the resources it needs to support quality teaching and student success for years to come.

Economic Policy Institute

The Economic Policy Institute's vision is an economy that is just and strong, sustainable, and equitable — where every job is good, every worker can join a union, and every family and community can thrive.

The Economic Policy Institute (EPI) is a nonprofit, nonpartisan think tank working for the last 40 years to counter rising inequality, low wages and weak

benefits for working people, slower economic growth, unacceptable employment conditions, and a widening racial wage gap. We intentionally center low- and middle-income working families in economic policy discussions at the federal, state, and local levels as we fight for a world where every worker has access to a good job with fair pay, affordable health care, retirement security, and a union.

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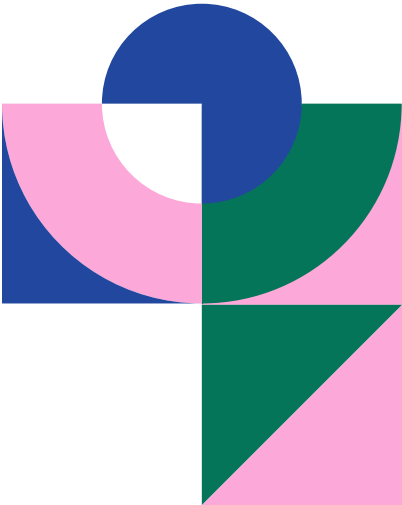
We would like to express our appreciation and gratitude for the many individuals who were interviewed and contributed their valuable insights to this report. A special thank you to the students in Redlands, California, for sharing their voices as part of this work. This report was produced thanks to generous funding from The William and Flora Hewlett Foundation.

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Executive Summary

Increasing Investment in California's Public Schools Will Result in Huge Gains

Universal public education was the primary reason why the United States became the richest economy in the world in the 20th century, and this vital public good remains a cornerstone of economic growth in wealthy economies. Yet recent decades have seen the public investment effort put into K-12 education in the United States lag across many measures: compared to its own history, compared to other wealthy countries, and most importantly compared to what would be necessary to maximize the large potential economic and social returns these investments could yield.

California specifically made huge investments in public education in the mid-20th century but then let anti-tax politics severely compromise this investment. In 2013, state policymakers undertook a significant school funding formula reform – the Local Control Funding Formula (LCFF). A year earlier California voters had passed Proposition 30 – a ballot initiative that raised sales taxes slightly and also enacted significant revenue increases from the richest California households. The Proposition 30 revenues were an indispensable complement to the LCFF, and the combination of both of these policy changes allowed California to see the level and progressivity of its public spending on education increase. The results have been unambiguously successful – but further investments are needed to reap the full potential of investing in the education of the state's children.

The rest of this report examines California's educational funding system and makes recommendations for how to sustain and expand these needed investments. Drawing on prior academic research, analysis of state policies, stakeholder focus groups and students themselves, this report attempts to chronicle the past policy choices that have shaped California's education funding landscape and shed light on how to attain a future where education funding is robust and student success is near-universal.

Photo-Voice Project

We asked students from Redlands, California to tell us what a fully funded school looks like. You'll find their photos and explanations throughout the report.

“ This is one of many MANY holes and mounds across the field, which the soccer players are expected to fix as a part of their practice because the school can't hire people to manage them. If the school had proper funding, they would likely be able to get an entirely new ground for soccer and ensure the players can focus on practice rather than solving the school's problems.”



Key Findings and Recommendations

01 Universal public education is a necessary condition for steady and broadly-based economic growth.

02 Public investments in education in the United States lagged sharply between the Great Recession of 2008–09 and the COVID pandemic.

03 A revolution in research assessing the causal effect of higher public investment in education shows that such additional increments to this spending yields high social returns and easily passes cost-benefit tests — in short, such spending in the United States is nowhere near saturated.

04 The proper way to measure a state's investment effort in public education is the ratio of per pupil spending to per capita GDP — this accounts for both the size of the student population needing resources as well as the state's ability to provide these resources.

→ Before the national decline in education spending in the 2010s, California was a notable laggard in its public education investment effort, consistently ranking in the bottom third of states nationally ranked by this measure of investment effort in public education.

05 A series of policy reforms and progressive tax initiatives in the 2010s notably changed the trajectory of investment in California public education for the better.

→ While the progressive tax initiatives improved the overall level of California school financing, it still remains in the bottom third public education investment effort nationwide.

→ The spending reforms have pushed the *progressivity* of California school financing — how much relative spending goes to higher-poverty districts — near the top of national rankings.

06 Relative teacher pay in California is barely better than the national average, and the high cost of living in California puts additional pressure on the ability of California educators to live comfortably on salaries from schools.

→ Other components of job-quality for educators in California are even worse — with California seeing some of the highest student-to-staffing ratios in the country.



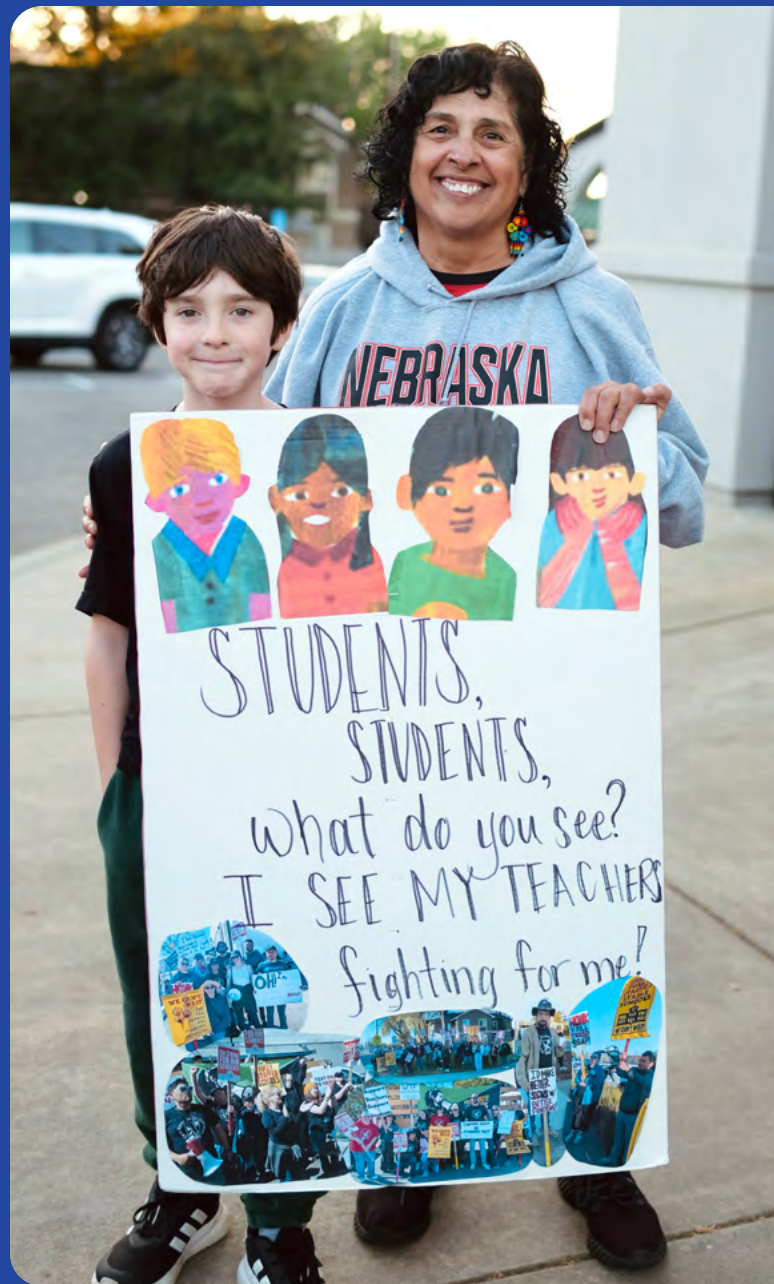
07 Other states that have launched successful school finance efforts — both durable and ephemeral — offer some lessons for California policymakers. The main lesson is the need to make reforms permanent and not give anti-reform forces easy institutional hooks to allow them to wither away.

08 California education finance remains hampered by Proposition 13 — a measure passed in the 1970s which suppresses property tax collections for both residential and commercial properties.

09 The Local Control Funding Formula (LCFF) reform of 2013 — along with two voter-approved progressive income tax measures — has brought transparency, progressivity, and time-limited increases in overall spending levels to California school finance. Gains to student achievement and success have been large and measurable.



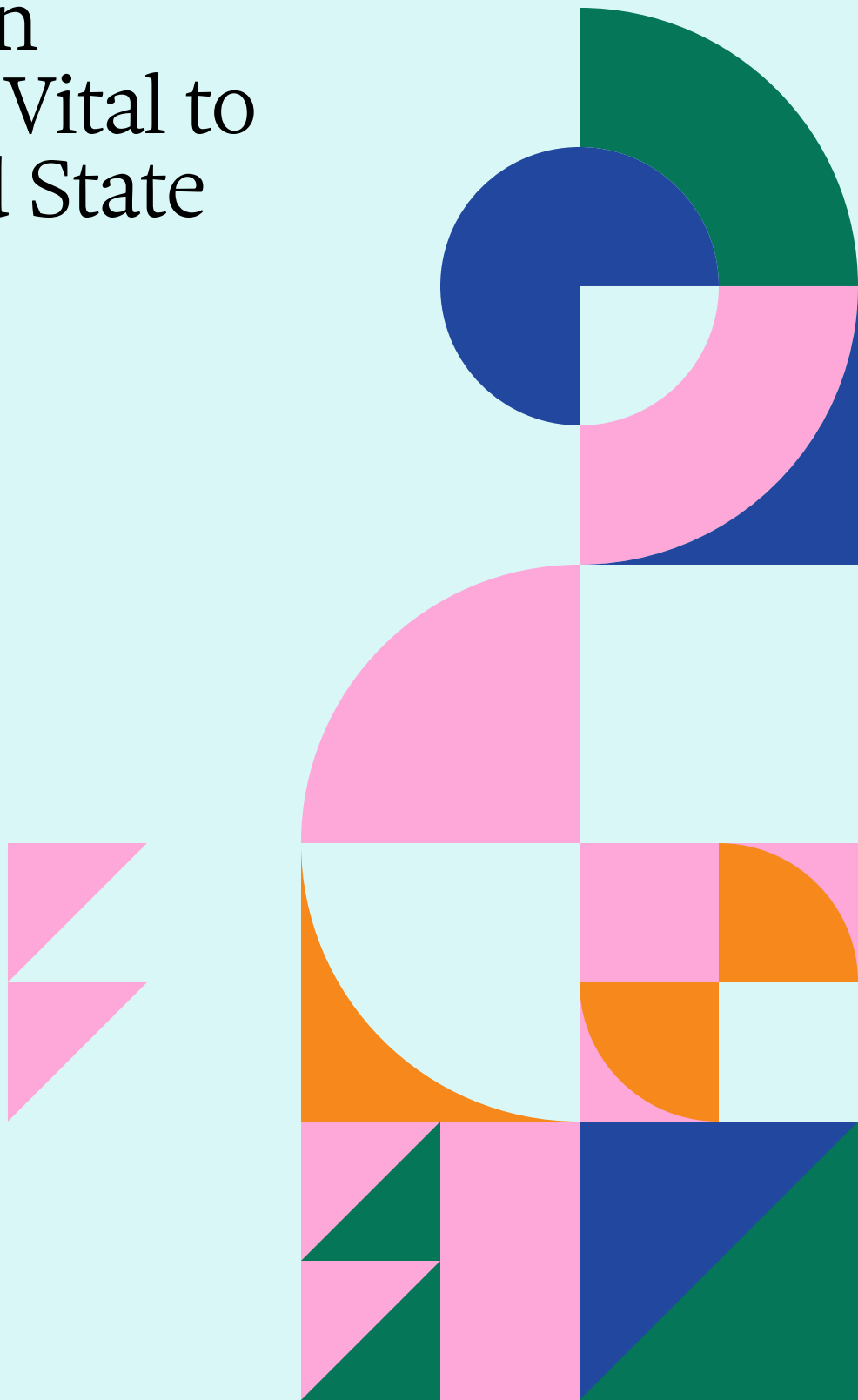
→ Further reforms could lock-in and expand on these gains including making permanent the time-limited revenue increases provided by Propositions 55 and 30.



10 Because Proposition 98 guarantees public education a fixed share of the California state budget, any measure that boosts the state General Fund will strongly benefit public education financing. There are many measures — including reforms to the state's corporate income tax — which could provide such significant revenue and these should be pursued.

01

Why Public Investment in Education is Vital to National and State Success



Economic Nobel Prize Winner Claudia Goldin (2001) has written extensively about why universal public education was the main driver of the United States becoming the wealthiest nation in the world:

“ At the dawn of the twentieth century the industrial giants watched each other cautiously. The British sent high-ranking commissions to the United States and the United States sent similar groups to Britain and Germany. All were looking over their shoulders to see what made for economic greatness and what would ensure supremacy in the future...Earlier delegations focused on technology and physical capital. Those of the turn-of-the-century turned their attention to something different. People and training, not capital and technology, had become the new concerns...For the twentieth century to become the human capital century required vast changes in educational institutions, a commitment by governments to fund education, a readiness by taxpayers to pay for the education of other people's children...”

Claudia Goldin | Economic Nobel Prize Winner (2001)

In the 21st century, unfortunately, too few policymakers recognize this history and what it should teach us about the proper scope of continued investment in public education. A key reason why universal public education is such a powerful force for economic growth is that its benefits do not accrue only to enrolled children and their parents but also generate positive spillover effects for society at large. But these positive spillover effects also mean that socially optimal levels of education investment *require* that high-quality education be universally available and publicly-funded.

Finally, by making quality education free for all, public education has the potential to reduce inequalities of both opportunities and outcomes between children from wealthy and poorer families. If students from poorer families had to rely solely on household resources to finance their education and skills-acquisition, these investments would go lacking and this would squander huge swathes of potential in the future workforce of the United States. This is not idle speculation — a large body of research shows that students from low-income families disproportionately benefit from incremental investments in public education.

What is “Enough” Spending on Public Education?

There might not be a *precise* answer to how one would know if a state or country was spending exactly enough on public education, but there are many clear pieces of evidence that educational investments in the United States and California are too low.¹

One piece of evidence is the simple fact that additional investments in public education reliably produce large social gains — higher educational attainment and greater life success for students who receive the benefits of larger investments. Further, these gains are large enough that they easily pass any conventional cost-benefit analysis once one factors in the higher income earned by students later in life after they have received the benefits of additional educational investments.

Another piece of evidence comes from how even prices in *private* markets move in response to new educational investments.

To be clear, market signals should certainly not dictate all (or even most) decisions about public investment in education, but the fact that *even* pure market prices show clear signs of underinvestment is a very powerful signal.

A growing body of research shows, for example, that home prices in school districts increase by well over \$1 when district investments in education increase by \$1. This unambiguously shows that when districts *are* able to spend more, this spending is highly valued by surrounding families, as they vote with their feet and demand houses in the districts where spending has increased. There is obviously much that is problematic about the linkage between school district

resources and property values that exists in modern U.S. school finance, most notably that high property values become a *de facto* barrier to obtaining better-resourced schools for children from lower-income families.

This research on the signaled market value of additional school spending is not an endorsement of this linkage, instead it is simply **evidence that public education spending today is underprovided**, even by the strict and limited test of whether or not families with means look to move to places that decide to spend more.

Finally, this evidence on social returns and market prices does not account for equity — on either the cost or the benefit side. Additional educational investments provide particularly large benefits to communities suffering from disadvantages linked to either low incomes or historical patterns of discrimination. And these investments can be financed with progressive taxes that are disproportionately paid by those with higher incomes and wealth. Once equity is accounted for on both the cost and benefit side, the prospects for boosting social welfare by using progressive taxes to finance increases in educational investment are even larger.



New Evidence Shows the Success of Increased School Spending

There has been a recent explosion of research highlighting that the social returns that could be realized from putting additional resources into public education have been radically underestimated by economists and policymakers for decades.² In later sections we will highlight California's relatively weak standing among U.S. states in its education spending — meaning that any *national* finding that public education investment effort is inefficiently low will certainly apply to the state as well. Further, some of this new wave of research highlighting large gains in student outcomes caused by an infusion of resources into public schools is based on the specific experience of California — in particular the gains in student achievement that accompanied the large influx in resources made possible by California's education reforms and progressive tax initiatives in the 2010s.

The backdrop to this recent research is that for decades many economists and education policymakers asserted that the overall level of K-12 education funding was sufficient in that across-the-board increases would not reliably raise student achievement or later life success of students. This often led to a focus on the *allocation* of spending across educational inputs rather than the overall level. This argument was obviously convenient in that it let policymakers off the hook for the hard political job of finding more revenue for schools. But it cannot be overstated how influential this argument was among economists and many policy experts — the

claim that levels of funding were sufficient and there would be no measurable payoff to boosting average per pupil spending was the conventional wisdom of education policy debates through the early 2010s.

However, more recent research undertaken with better empirical methods has overturned these earlier claims about the overall sufficiency of school funding. In short, the easy claim that U.S. schools were spending “enough” on K-12 education turned out to be extremely misleading.

Crucially, this wave of new research has overcome the statistical challenge of trying to isolate the causal effect of higher spending levels of educational and social outcomes. Public education spending is not random and depends on a number of factors that are correlated with student success. For example, spending in a given district might rise as higher-income families move into the area and property values (and taxes) increase. These higher-income families might also be able to provide greater in-home resources that will aid their children's academic performance. Simple correlations between the level of district spending and student success might hence show a positive relationship, but the causality would not necessarily be running from district spending decisions to student success; both might instead be driven by a third variable, which is simply the level of family resources on average across the district. Running the opposite direction, much of school funding is explicitly compensatory, targeting students

facing greater socioeconomic disadvantage to attempt to even out total resources (both in-home and public) available to students for academic success. But if this greater spending targets students with fewer in-home resources, it could show a negative relationship between levels of spending and student performance and again would not be reflecting the causal effect of this spending.



Education Investment During the Pandemic

Importantly, these findings that large gains in student achievement are possible with higher levels of funding have been validated by the very recent experience of significant spending increases made possible by pandemic-related educational aid provided by the federal government.³ States and districts that received and spent more of this federal aid saw better educational outcomes, and the relationship between the amount of aid and the expected benefits of student achievement largely mirrored what would have been expected before the pandemic.

In short, the most cutting-edge evidence — which has yet to have permeated policy debates the way it should have — indicates strongly that boosting public investments in education would lead to large gains to society.

02

California's Past and Present Education Investments – and Future Challenges

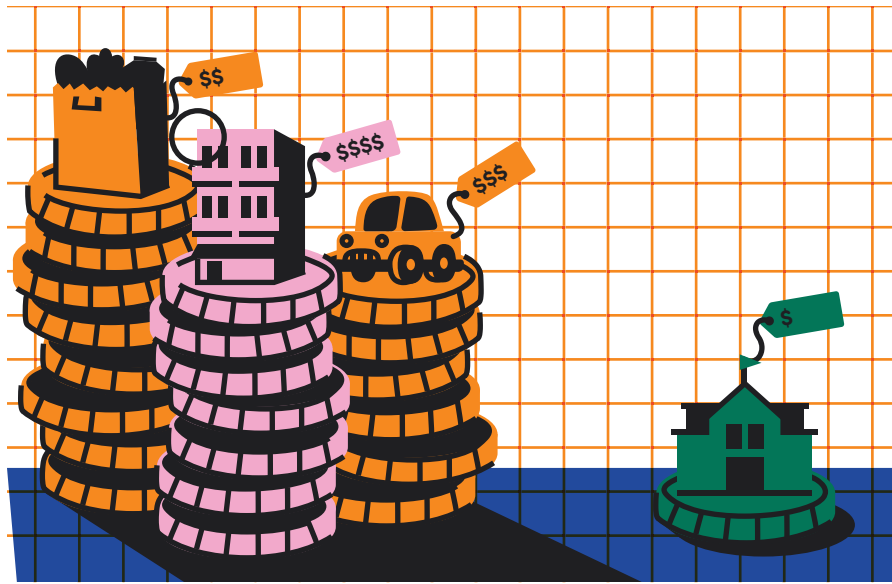


Section One mostly highlighted evidence that higher levels of spending on education across the U.S. would boost student achievement and later life success. In this section, we document California's current educational funding landscape and show that this finding applies fully to California.

For good or bad, the vast majority of funding for K-12 education in the United States is driven by state and local governments. This means that — unlike many crucial policy questions — the decisions about how to improve it going forward rest largely in state and local policymaking hands. In short, California is in charge

of its own destiny in deciding the proper levels of education funding to a degree that is not true of many other vital policy issues.

Throughout this section and the rest of the report, we share results from questions we asked in our stakeholder focus group convenings. These focus groups asked questions about California funding to stakeholders who, in our view, are experts in the real-world outcomes that result from school finance policy: teachers, school board leaders, union members and youth organizations, and students. For more information on these convenings, see **Appendix A**.



These stakeholders had high hopes for what California schools could deliver. But for these hopes to be fully realized, they will need sufficient funding.

California has the highest cost of living of any state in the U.S. but ranks 36th in per-pupil education spending.⁴

Photo-Voice Project

“ The photo shows the school is not fully resourcing students by showing a lack of active support or engagement. The student is alone in a hallway ditching class. The isolation and lack of activity hint at a shortage of human and social resources— meaning there might not be enough staff, mentors, or designated spaces to fully support the student's emotional well-being and keep them actively engaged.



This inefficiently low level of public investment carries consequences for student achievement and life success, teacher pay, capital improvements, special education, and summer learning support, among other key goals. This insufficient investment in public education also foists artificial zero-sum choices about needed educational inputs across school systems — for example by putting sustainable teacher salaries against classroom sizes. Even within today's too-constrained funding these choices are often false and could be greatly alleviated with finding efficiencies in the system in spending that do not impact student achievement. But insufficient funding really does bind possibilities for reaping the full potential gains from public education.

Measuring California's Past and Present Investment Effort

Probably the best summary measure of investment “effort” any political unit makes in public education is the ratio of per-pupil education expenditures to GDP per capita. This measure has a number of virtues. For one, the data for both the numerator and the denominator are readily available and can allow comparisons between states or countries. For another, this measure reflects that assessments of the adequacy of public education spending should account for both the number of school-age children (ages 5–18), but also the *capacity* to spend on education, which we define in this case as the overall state GDP-per-capita.

Scaling educational spending by overall economic growth rather than just inflation is vital for assessing how well a state is able to maintain a constant quantity *and quality* of educational inputs. The most obvious and important example of this is teacher salaries. To maintain a high-quality pool of potential teachers, it is not enough for teacher salaries to rise with inflation, they must also rise enough to keep pace with other highly educated workers. If teachers’ pay

begins to lag relative to that of other highly educated workers, the supply of willing, high-quality teachers will shrink and children’s education will suffer. If the ratio of per-pupil spending to per capita GDP is falling over time, then society’s educational investment *effort* can be said to be lagging, meaning that we are not spending enough to keep a consistent quality and quantity of resources available for educating kids.

Figure A

California spends less on education relative to GDP than 35 other states

Spending and GDP are inflation-adjusted to 2024\$

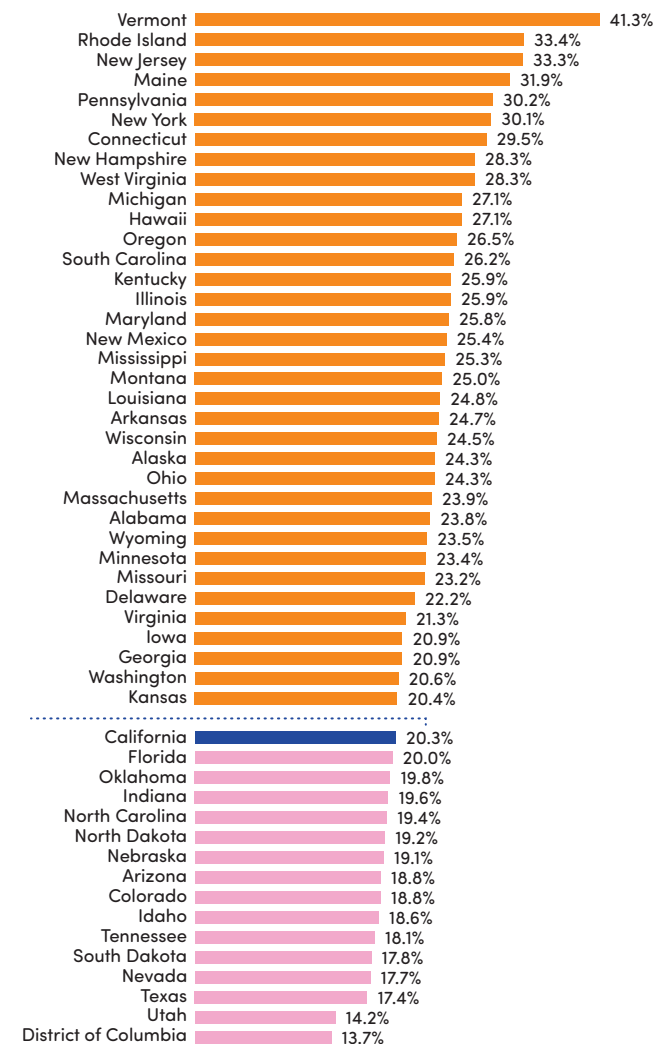


Figure A shows that California’s education spending per pupil as a share of per-capita GDP in 2022 was low relative to its capacity. California only spends about 20% of its GDP-per-capita on education, whereas other high cost, densely populated states like New York spend nearly 30%.

Source: Author analysis of U.S. Bureau of Economic Analysis [state GDP summary statistics](#); U.S. Census Bureau, Population Division (2020–2024); and National Center for Education Statistics, Common Core of Data, “[National Public Education Financial Survey](#)” data.

This snapshot of California's public education investment effort can be supplemented with a look at its historical trends. **Figure B** below highlights this ratio over the past quarter-century. In the years following 2008's Great Recession, California's investment effort collapsed — a common occurrence across the U.S. as spending in most states was deeply damaged in those years.⁵ Pressure on state and local budgets from the steep and prolonged recession, as well as specific damage done to local property taxes stemming from the burst housing bubble combined to put intense downward pressure on state and local spending in the 2010s. Except for a brief period of fiscal aid through early 2010, little relief came from the federal government in this time.

By 2013, however, California had enacted reforms to boost the level and progressivity (and the transparency) of its educational financing. Following these reforms there was an improvement in California's investment effort. However, as of 2022 it still remained below the peaks it reached in the early 2000s. California is a bigger and richer economy now than in the early 2000s, and it clearly has room to spend more on public education.

Figure B

California is Spending Less Proportionally on Students than it did During the Great Recession

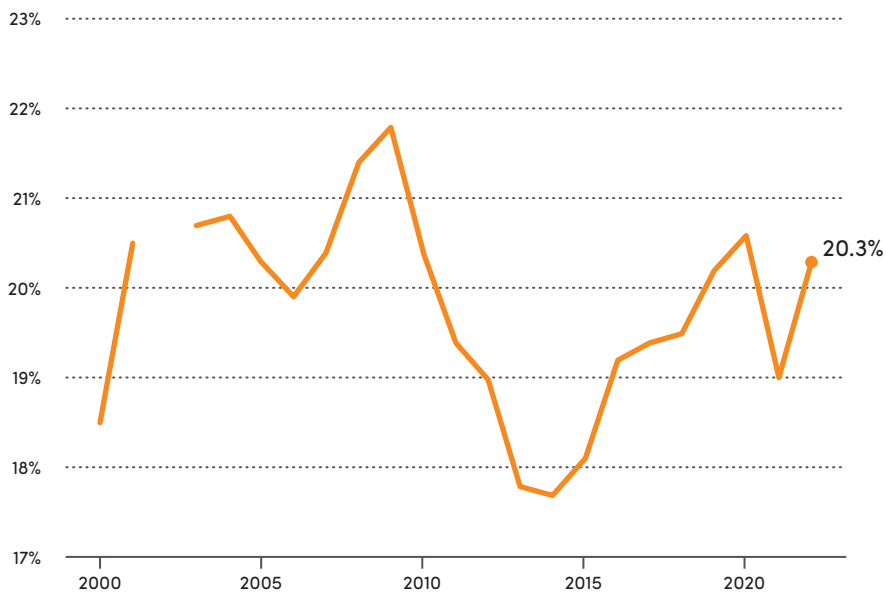


Figure B shows per-pupil education funding as a share of GDP per capita over time, 2000–2022.

Source: Author analysis of U.S. Bureau of Economic Analysis [state GDP summary statistics](#); U.S. Census Bureau, Population Division ([2000–2009](#), [2010–2019](#), [2020–2024](#)); and National Center for Education Statistics, Common Core of Data, “[National Public Education Financial Survey](#)” data.

Photo-Voice Project

“ I took a picture of us, our theatre department going to Knott's. Our school has the resources (supported by student donation) to send us on fun field trips. We have access to the busses and such required to do fun things, like field trips.”



Measuring the Equity of School Funding Distribution in California

Besides the overall level of school funding, the distribution of this funding across districts crucially affects how effective it will be in broadly providing educational opportunity. Children from districts with higher poverty are likely to need higher levels of educational funding to have the same opportunity for success as those from lower poverty districts. In-home resources like access to books, enrichment activities and parental time and investment in helping prepare kids for schooling are distributed highly unequally across school districts, and resources available within schools can either narrow or further exacerbate these inequalities. For any fixed level of overall resources, a progressive distribution that gives larger per pupil amounts to lower income districts will raise overall measures of educational success.

In **Figure C** below we explore how California's spending varies across neighborhoods ranked by their resources. We compare California's funding in low-, middle-, and high-poverty areas to a measure of funding **adequacy** for these districts.

Figure C
California's Spending is Inadequate in High-Poverty School Districts

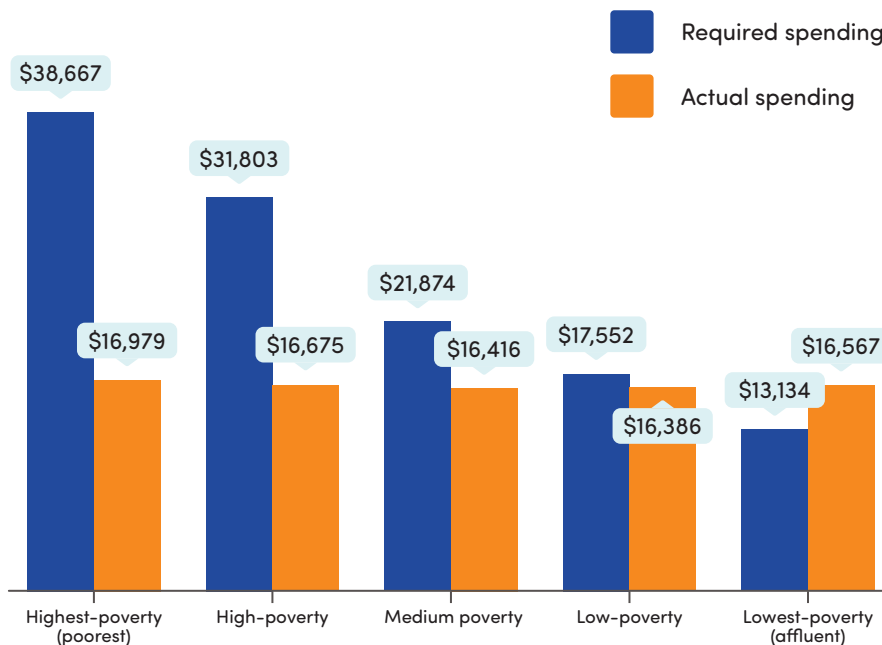


Figure C shows per-pupil spending compared with estimated spending required to achieve national average test scores, by poverty quintile of school district, 2019.

The figure shows how much is spent in each of the five types of districts and how much they would need to spend for students to achieve national average test scores. We use the most recent year prior to the COVID 19 pandemic to avoid comparisons that relied on short-term ESSER payments. Spending is inflation-adjusted to 2024\$.

Source: Adapted from [Baker, Di Carlo, and Weber \(2024\)](#).

What is Funding Adequacy?

This measure of funding adequacy estimates the amount of spending required to allow the majority of a district's students to exceed the national average math and reading scores in grades three to eight. This adequacy measure differs by district because it incorporates factors that affect students' needs in a given district, such as Census child poverty rate, labor costs, student characteristics, and teacher labor markets. These factors help illustrate that resources available *outside* the school strongly affect student learning outcomes. For example, students in high-poverty districts will have fewer resources at home and thus require more resources in their school to achieve a given outcome goal (like a score on a standardized test) relative to students in more affluent areas.

Funding at adequacy thresholds ensuring that students can achieve average test scores should be viewed as the bare minimum.

Except for the wealthiest districts, California districts spend less than the adequacy threshold. In particular, the highest poverty districts spend *less than half* of what is needed to meet the adequacy threshold. This measure of education adequacy is not necessarily a hard-and-fast target for defining what would constitute “full funding” of California schools — enough funding for all students to get average test scores shouldn’t be the only goal of education investments. But this adequacy measure is illustrative of how funding gaps in California vary by resources available to certain districts.

The takeaway is that while California’s per pupil spending does indeed rise as measures of district need rise (ie, higher-poverty districts generally receive higher funding levels, except the gap between “low poverty” and “lowest poverty” districts), this gradient is nowhere near steep enough to fully neutralize the inequality of out-of-school resources between districts.

Further, even as California’s most affluent districts spend more per pupil than a basic adequacy standard, there is nowhere near enough spending in affluent districts above the adequacy level to redistribute to other districts and allow them to move over the adequacy standard.⁶

Funding at adequacy thresholds ensuring that students can achieve average test scores should be viewed as the bare minimum; what California deserves is enough funding so students can achieve excellent student outcomes, regardless of neighborhood resources.

Photo-Voice Project

“ The school does not clearly resource the students because, due to rain, a portion of the ceiling of Mr. Perez’s classroom gave and landed on the floor, completely soaking the carpet. Although this happened before a class was in session, the ceiling fell on a portion of desks that would have had students seated as the class was going. The fact that the ceiling is so cheap that it can collapse from rain water is bad enough, however seeing the way the tiles are placed, an earthquake could very easily dislodge tiles from the ceiling, which creates another hazard for students and staff.”



How Do Levels of School Funding Translate to Real-World Stakeholders?

In our focus groups with education stakeholders in California, we asked teachers, union leaders, school board members, district administrators, and youth advocacy groups whether they had ever experienced fully funded schools (see **Appendix A** for methodology on focus groups). We quite purposely did not provide any definition (and certainly not a technical definition based on estimated adequacy thresholds) of what “fully funded” might mean.

While some of our participants were able to identify certain programs or years during which they felt they had experienced fully funded schools, the dominant response among participants was that they had never experienced a fully funded school in their career.

When referencing instances where they experienced full funding, these participants mentioned the influx of federal education aid passed in the wake of the pandemic, but they noted that these funds were temporary and hence didn't allow for many long-term investments that would be helpful for California's public schools.

In response to a question about full funding in California, a teacher from southern California said:

“In my entire experience from kindergarten all the way through as a teacher of 22 years, I've never experienced a truly fully funded anything ever...[E]ast coast schools tend to be nicer and better built and better developed. But in California... my chairs have been the same chairs since the 1970s. The only time we came close full funding was during COVID...but nobody knew how to spend the money that fast.”

Teacher | Southern California

Photo-Voice Project

“Our school has a really great tech department for theater, and these tools are used for set building. Our shows would not be nearly as professional if we didn't have these tools to build sets. Offering set design also allows students a really great opportunity to learn how to use power tools and get hands on work experience they could use later on in life.”





Low levels of funding often lead to strain in the classroom and tough decisions at the district level.

For example, California teachers have the second highest spending level in the nation on out-of-pocket expenses, spending nearly \$600 per year on out-of-pocket school-related expenses.

According to survey data from the National Center for Education Statistics (NCES), more than nine out of 10 teachers will not be reimbursed for what they spend on supplies over the school year, making this a substantial expense in teacher's personal budgets. This shortfall in basic supplies is also uneven across districts and schools, highlighting that further improvements in the progressivity of education financing are needed.

When asked for signs that a school is not fully funded, many focus group participants gave textured detail on supply crunches and this need to pay out of their own pockets for supplies.

“ We get one pencil per student.”

Teacher | Bay Area

“ We just got a printer 2 years ago, but only one cartridge per year...and it's not standardized to have printers in classrooms throughout California.”

Teacher | Southern California

“ We can't ask the parents because they have a right to free- and appropriate public education... We often end up dipping into their own pockets.”

Teacher | Southern California

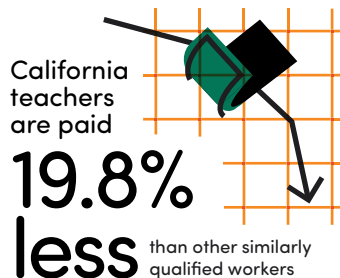
Teacher Pay and Working Conditions: Evidence of Education Funding Neglect

California's teacher pay is higher in nominal terms than the national average. But California's relatively high nominal pay for teachers does not account for how prices differ across states. In 2023, for example, a measure of cross-state price levels from the Bureau of Economic Analysis (BEA) indicated that California was the single most-expensive state in the country.

Even with collective bargaining rights, California public school teachers still make significantly less than peers in their state with similar education and credentials.

California teachers are paid 19.8% less than other similarly qualified workers, whereas the national average is 24.1% (Allegretto 2024). **Figure D** shows how

California's teacher pay gap compares with other states.



In focus groups, educators noted that paraprofessionals, a role that often provides key support in educational settings for students with individual education plans or for managing large classes, are paid much more poorly than teachers. Moreover, educators noted that paraprofessionals do not receive the necessary resources or training.

In the face of these higher prices in California, one strength of the California public school system is relatively strong collective bargaining laws for teachers, allowing California teachers' unions to meaningfully bargain for strong wages and benefits.

“ [Regarding a push to move some special education students into general education] we don't have the aides to support those students... there are no aides going in and no training going in.”

Teacher | Bay Area

“ Our para[professional]s are the least expensive portion of any program we have, but they [the district] don't give them an extra two hours or a day for training, so [paraprofessionals] are training on the fly...it's not that expensive.”

Teacher | Southern California

This is a low bar for labor standards in the abstract, but it is unfortunately one that many other states do not pass. In Texas, for example, teachers are legally barred from collective bargaining. This is effectively true in 5 other states as well. A further 9 other states do not bar collective bargaining at the state level, but local employers are not obligated to bargain and so many teachers in those states have no real collective bargaining rights.

Figure D Teachers Face a 20% Pay Penalty in California

Regression-adjusted estimates by state, pooled data for 2019–2024

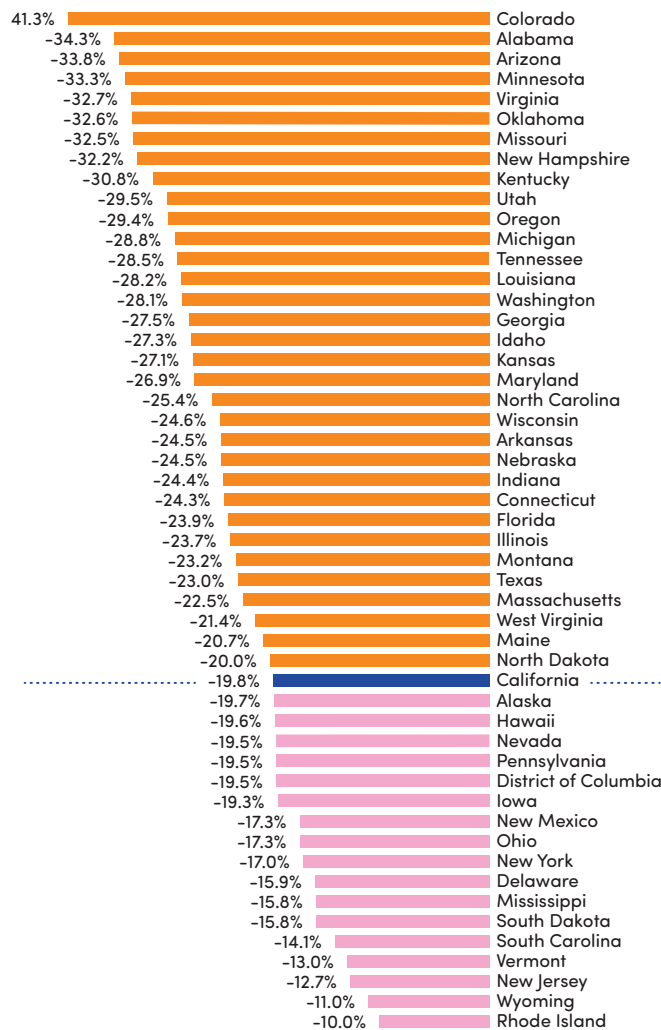


Figure D shows how California's teacher pay gap compares with other states.

Figure shows state-specific regression-adjusted weekly wage penalties for public school teachers (elementary, middle, and secondary) relative to their college-educated, nonteaching peers. See [Allegretto and Mishel 2019, Appendix A](#), for more details on data and methodology.

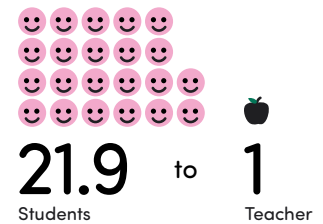
Source: Author's analysis of Current Population Survey Outgoing Rotation Group data accessed via the EPI Current Population Survey Extracts, Version 2025.7.10 (EPI 2025a), <https://microdata.epi.org>.

Finally, while pay is the clearest signal about the quality of employment in teaching, many other dimensions matter as well. For example, another measurable input into the job-quality of teachers is the student to teacher ratio. Holding pay constant, a higher student to teacher ratio represents a greater intensity of work for teachers and likely translates into lower job satisfaction.

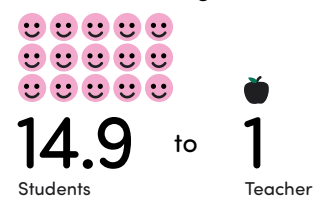
Currently, California has one of the highest student-to-teacher, and student-to-staff, ratios in the country.⁷ The average student-to-teacher ratio in the nation in 2021 was 14.9-to-1, however California's was 21.9-to-1. California's student-to-staff ratio was 9.6, but the national average is well below that at 7.2. These high ratios mean that the job of education professionals is higher-stress and more intense, and it likely means that students are less supported in the classroom, which has implications for their ability to learn and succeed in California schools (Darling-Hammond 1999; Ladd and Sorensen 2016).

When asked for the clearest indication that schools are not fully-funded, the issue of class size was raised repeatedly in our focus groups:

California Average



National Average



“Class size. It's hard to provide individualized teaching when there is a 40 person class.”

Teacher | Southern California

“State policy in California is for a 24-1 student to teacher average in K-3; but as they expanded transitional Kindergarten (TK), it's gotten rolled into the k-3 ratio. TK needs to be staffed at a 10-1 ratio. As TK gets rolled in, the class sizes have exploded in grades 1, 2, and 3.”

Teacher | Southern California

The Future of Public Education Investment in California

Photo-Voice Project

“

This picture shows that there are people who are keeping us safe by make sure that everything are stable and safe for students to be at this school. For example, this person was observing this school campus for any unsafe places for students to go and fix the problem later on that students wouldn't be hurt or injured. Another reason this picture represents that the school fully resources students by this person providing places where it can tell people where to go or what to do at certain events. Like hanging up a poster for reporting thing and being safe.”



The *status quo* of California public education financing has been much improved since the passage of the Local Control Funding Formula (LCFF) in 2013, but it still needs significant reform. Going forward, trends outside the level of state support will impact this financing. One trend — the continuing improvement in the opportunities for women in the wider labor market — is clearly positive overall but does require policymakers recognize this means higher teacher pay is needed to preserve the quantity and quality of the California teacher labor force. In addition, sharp cuts in federal funding are a steep challenge that will take either extraordinary reversals at the federal level or an even greater commitment at the state level to hold education funding harmless.

Changes in the Labor Market: Teachers and Opportunities for Women

Earlier sections provided evidence that pay for public school teachers lags increasingly behind pay for similarly-educated professionals. Besides pay, other measures of job-quality among teachers have reached historic lows.⁹ This deterioration in job-quality will obviously be a drag going forward on the ability to attract enough qualified and motivated people into the teaching profession.

Further, it is often under-recognized how much teacher retention and recruitment in previous decades was aided by restricted opportunities for highly-qualified women in other segments of the labor market.¹⁰ Discrimination and gendered norms in professional labor markets severely restricted women's opportunities in many professional fields until the relatively recent past. Even today, discrimination in professional labor markets — which often comes in the form of jobs structured to be inflexible and requiring very long hours early in a professional's career — still leaves many highly-paid professions with fewer opportunities for women. As these barriers to women's participation in highly-paid professions steadily fall, this actually means the relative pay of teachers needs to rise simply to keep the size and quality of the female teaching workforce constant over time.

To be clear, rising opportunities for women in the wider labor market is clearly a positive social trend — it's just one that requires the public sector respond by keeping its job-offers competitive.

Finally, school-age children in the United States are a more racially- and ethnically diverse cohort than older generations (like the working-age teachers in their classrooms). Research has shown that reducing the demographic mismatch between teachers and students can boost student achievement.¹¹ Reducing this mismatch will require investments to ensure that a diverse pool of potential teachers receive proper training and recruitment to join the teaching profession and will likely require improving teachers' relative pay.

None of these challenges to recruiting and retaining enough highly-qualified teachers should be insurmountable — especially since they stem in part from economic good news that leads to higher incomes throughout the economy. Further, there are many who would leap at the chance to do the socially-rewarding work of teaching, so long as the sacrifices they would have to make in terms of job-quality were not too large. But making sure job-quality is sufficiently high to ensure this pool of qualified teachers does require greater investments in public schools.



Deep Federal Cuts: The Primary Challenge to California's Educational Funding



While this paper mostly focuses on state and local funding for California, it should be noted that Federal funding for states dedicated to public education is under severe threat. First, there is the predictable fading away of federal educational aid linked to the pandemic crisis of the early 2020s. This tranche of federal aid to states for public education was substantial. It provided huge help to states to manage the greater demands on public schools imposed by the pandemic and its aftermath. It often funded the hiring of key school staff (tutors and nurses and paraprofessionals) that became key contributors to educational quality. By 2026, however, this aid will have effectively dried up.

More worrying, even the baseline level of federal grants to states and localities for public education looks deeply threatened. In pre-pandemic years this federal aid accounted for roughly 7-9% of total spending on K-12 spending — far from a majority but a significant amount. In dollar terms it approaches \$50 billion annually if pandemic-linked aid is excluded.¹²

Early in 2025, President Trump signed executive orders to dismantle the Department of Education and “return the funding to the states” and regulate curriculum taught in the more than 13,000 public schools in the country (Wething 2025). Further, for over a month in the summer of 2025, he held up \$6.2 billion in funding for education programs, including extended learning programs in the summer, English language learning and professional development of staff and teachers. Finally, the 2025 budget reconciliation bill (which went by the acronym OBBBA) created a national school voucher program, which allows individuals tax breaks for donations to scholarship granting organizations. This program essentially uses public dollars to subsidize private schools all over the country, including in California.

All of These Federal Trends Threaten Key Resources for California

In 2024, including pandemic-related aid, California received 14% of its educational funding from the federal government, much of it targeted towards special education through the Individuals with Disabilities Education Act and supports for high-poverty districts through Title I grants. Coming years will see this federal share erode significantly.

Finally, though it is outside the official category of “education financing”, it is worth noting that the OBBBA legislation also enacted steep cutbacks to Medicaid and the Supplemental Nutrition Assistance Program (SNAP – commonly called food stamps) in the coming decade. Over \$800 billion was cut from Medicaid and over \$300 billion from SNAP.¹³ Medicaid and SNAP provide transfers to low-income families primarily to provide health insurance coverage and food assistance. While Medicaid and SNAP are not generally counted as education resources, it is clear that these transfers provide large and often underappreciated benefits to educational outcomes, and if state spending on these programs does not rise to compensate for the federal losses, there will be steep headwinds in trying to provide an effective high-quality education for all children.

For example, research has found that children’s exposure to both Medicaid and SNAP lead to improved educational attainments.¹⁴ The logical pathways from exposure to these programs to greater educational attainment are obvious: kids that are in better health and not suffering from nutritional deficiencies will focus better in school.

As resources available to children outside of school are stripped away, it is clear that children’s performance in school will suffer unless some compensatory resources are provided.

Photo-Voice Project

“ This drain doesn’t work so when you turn off the sink it floods. It has been this way for so long that there is a spot on the ground that is sunken in from corrosion. This is a tripping hazard along with stepping in the puddle and soaking your whole shoe is another issue.”



03

Policies That Have Informed the Past Can Mold the Future of Education in California



To make sense of how California got to its current education funding situation, this section provides a potted history of policy choices that played a major role in shaping California's education finance system.



Funding for K-12 schools throughout the 1950s and 1960s was largely financed with property tax revenues imposed by local school districts, leading to considerable disparities in per-pupil tax revenues between wealthy and poor districts. Districts with high property values could raise more revenue per pupil for any given property tax rate, while a district struggling with low property values would need far higher property tax rates to reach the same level of funding. These higher property tax rates would in turn provide an incentive for families to leave these districts, further depressing property values.

This system of school financing by local property taxes was contested in a 1968 court case (*Serrano v. Priest*) that made it all the way to the California Supreme Court. The Court agreed that this financing system was unequal because students in low-property wealth districts received less funding and, as a result, less access to educational opportunities compared to students in high-property wealth districts. In the wake of the *Serrano v. Priest* decision, California enacted AB65, which attempted to equalize revenues through an inflation adjustment process that would inflate revenue from low-revenue districts faster than high revenue districts. However, before AB65 could be enacted, Proposition 13 — a ballot measure — was approved by voters.

Proposition 13: A Blow to Both Equity and Sufficiency of Education Financing

In 1978, voters approved Proposition 13, which limits the property tax rate to around 1% and assesses property values at the time of sale only. At the time of its passage local taxes were still a key revenue source for school funding. By assessing the value of property only at the point of sale, Proposition 13 led to large declines in revenue collected from long term homeowners and corporations, as these groups were able to accrue increased property values without having to pay taxes on the rise in value. Property values are generally lifted up (like average wage levels and profits) by overall economic growth. If property taxes are collected on assessments that update relatively frequently, this helps keep property tax revenue roughly stable as a share of the economy.

But Proposition 13 delinked property tax revenue from economic growth by stopping assessments in between sales, thereby switching off one potentially valuable source of revenue for the state.

Proposition 13 creates incentives in property ownership that have led to the underfunding of California public schools. Long-term residents, for example, do not generate much revenue for public education because their property taxes are fixed, so to generate revenue for a district, new residents are saddled with higher taxes. These high taxes increase the cost of buying in that area, which further reduces turnover in these neighborhoods and leaves neighborhoods with a large share of long-term residents with an even lower tax base than before. The turnover that does happen even in the face of Proposition 13 hence leads to sharp inequality in tax payments among neighbors with similar property values based solely on the tenure of ownership: long term homeowners pay considerably less than new homeowners.

About Proposition 13

Year Passed
1978

Definition
Limited property tax revenue collected from long term homeowners and corporations

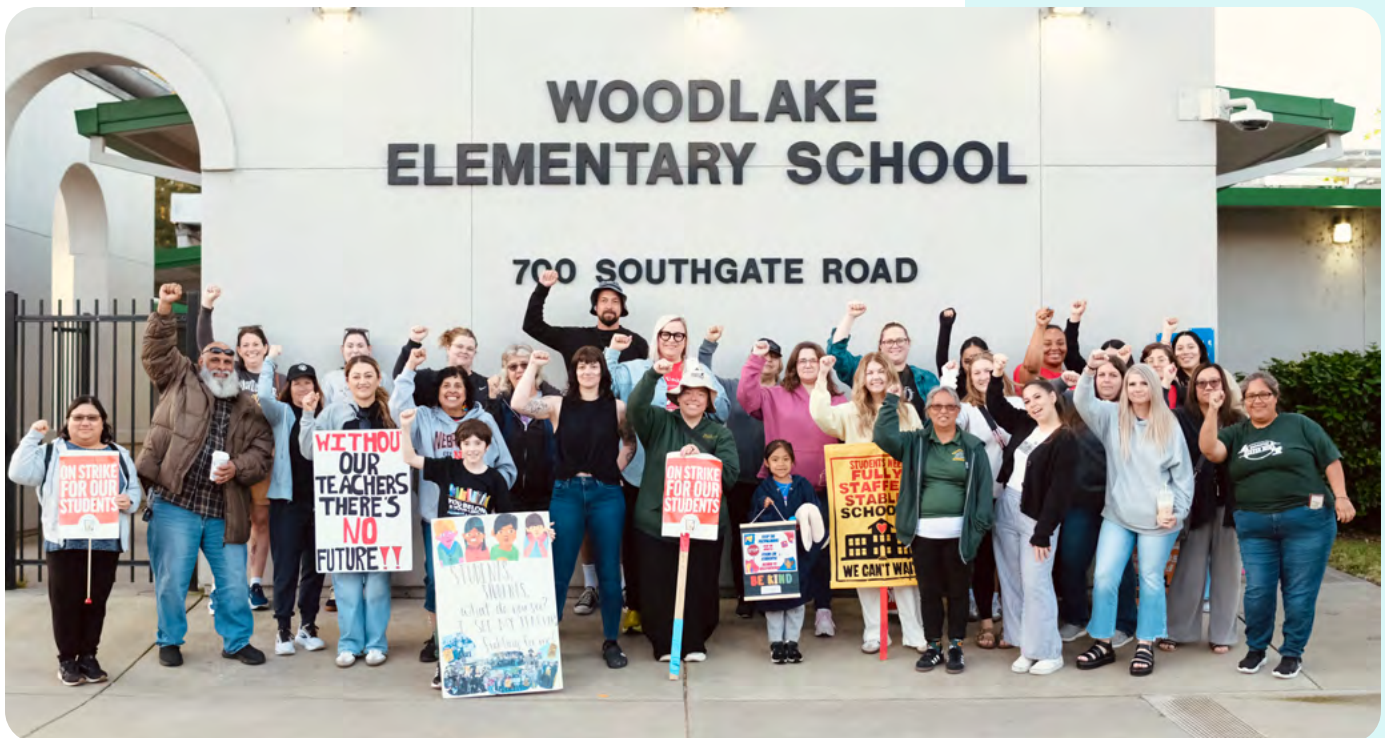
Effect on California Schools
Created an incentive for long term property ownership, and decimated a stable source of state revenues to spend on education.

At the time Proposition 13 was enacted, it was not matched with an overall increase in funding, leaving California school inadequate and inequitable. This lack of funding has had consequences for California public school students, leading to poor student performance.

We asked focus group members about the impact of Proposition 13 on public education funding in California and every person that responded indicated the impact was negative. A superintendent from the Bay Area mentioned the negative impact on school funding as a result of Proposition 13:

“The biggest problem with Prop 13 was it took away a stable source of funding because property taxes are predictable.”

Superintendent | Bay Area



Proposition 98: A Minimum Funding Guarantee for California Schools

In an effort to prop up funding for public education in the face of throttled property tax revenues, Proposition 98, passed in 1988, set a minimum guarantee of state funding for K-12 schools and community colleges. Each year the level of funding is based on a percentage of general fund revenues or the prior year guarantee, adjusted for inflation and attendance. The percentage is usually 40% of the General Fund to the K-14 education budget (K-12 plus community colleges) (Kapphahn and Kuhn 2017). The K-12 share generally hovers around 38% of general fund revenues.

Given the inequalities and sharp fiscal constraints in education funding after Proposition 13, the stabilization brought on by allocating a set percentage of the general fund to public education created an important bulwark against a downward spiral in this funding. However, the funding formula used to establish funding amounts is often used as a “ceiling” rather than a minimum — California rarely allocates more than 40% of the General Fund to the overall public education budget (Kapphahn and Kuhn 2017).

Further, while Proposition 98 guarantees that public education funding gets a stable share of the General Fund, if policymakers do not ensure enough overall revenue for the General Fund, this means that the result of the guarantee is essentially a fixed share of a too-small pie. This particularly binds when California faces a budget shortfall, as it did in 2023. In the 2022 tax year, revenues were an estimated \$25 billion lower than what policymakers had forecast. This meant that the funding guarantee for K-14 education was lower than assumed in the last year's budget, in this case of about \$14.3 billion across a 3 year budget period ([Kaplan and Saucedo 2024](#)).

When we asked about policies that make the biggest impact in California, Proposition 98 frequently came up. A union leader from southern California replied:

“Prop 98 is a minimum funding guarantee for California Public Schools. All revenue measures goes into the general fund and public schools get 38%. At a time like this when we have a really bad budget year, it provides some security for school funding. In California there's been a disinvestment in California public schools due to prop 13, so even though we get 40% of the state budget it's still not enough for public schools.”

Union Leader | Southern California

Others discussed the way that Proposition 98 could be improved. A union leader from Central Valley, said:

“Prop 98 is going to give us a good chunk of the big 3 taxes [personal income, sales and use, and corporation taxes], but we're lacking entry into the newer forms of the economy, such as tech, that's not really taxed yet. So the digital services/advertising is making hundreds of [billions of] dollars but it's not a part of Prop 98's calculation. And also the fact that income tax is a way that people are taxed, but the big money doesn't pay income tax, they're on dividends/securities, so it's not taxed the same way. So in addition to reforming to 13, we need to make sure corporations pay their fair share. [Companies] never dies, for example, they just get to enjoy their sustained lower tax rate.”

Union Leader | Central Valley

About Proposition 98

Year Passed
1988

Definition
Set minimum guarantee of state funding for K-12 school and community colleges based on a percentage of the General Fund

Effect on California Schools
Stabilized education funding after Proposition 13's damages, but treated more like a ceiling by the state. When budget faces a shortfall, percentage of funding remains fixed and education funding decreases.

The Reforms of the 2010s Made Progress on California Financing and Student Outcomes

States across the country saw intense downward pressure on state and local revenues stemming from the burst housing bubble of the mid-2000s and the Great Recession of 2008.¹⁵ This across-the-board pressure on state and local revenues was felt most acutely in education spending, which saw significant declines nationally. In 2013, five years after the Great Recession began, California enacted the Local Control Funding Formula (LCFF), which was implemented to consolidate, stabilize, and make more transparent dozens of different revenue streams going to California schools and which was also explicitly aimed at reducing achievement gaps by steering more resources to higher-need districts.

In the year before the enactment of the LCFF, California voters also approved Proposition 30 — a set of time-limited increases in sales taxes and personal income taxes that increased funding to local education agencies. In 2016 Proposition 55 extended Proposition 30 until 2030.

The revenue from Proposition 30 (along with the pre-existing Proposition 98 guarantee) made it possible for the LCFF to commit \$18 billion in increased state support, distributed to districts incrementally over 8 years, based on pupil needs such as student family socioeconomic status or whether the student was an English-language learner.

The LCFF funding formula is essentially the sum of three components: a *base grant*, which varies based on the composition of a district's students across grades; a *supplemental grant*, which average roughly 20% of the base grant for each high-need student in the district; and a *concentration grant*, which is equal to 65% of the base grant per high-need student in those districts comprised of more than 55% high-need students. For districts comprised of more than 55% "high need" students, the concentration grant is provided for every high need student above the 55% threshold (Jones 2024).

The LCFF is largely viewed as beneficial to California schools because it increases the funding that high need districts receive, and provides a stable funding formula, allowing for districts to plan for larger and longer-term initiatives rather than one-off expenditures. Moreover, the LCFF grants come with few strings attached, allowing districts to exercise substantial autonomy to decide how to best spend the money for their students.

Rigorous evaluations demonstrate clearly that the introduction of the LCFF was beneficial for California students. An analysis by Johnson (2023) for the Learning Policy Institute (described in a previous section) found that an additional \$1,000 in per-pupil spending over three consecutive years from LCFF resulted in a full grade level improvement in math and reading.

Of the focus group respondents that discussed the package of changes to California's public education financing that took effect in 2012 and



About the Local Control Funding Formula (LCFF)

Year Passed
2013

Definition
New school funding system for California K-12 schools which distributes funding according to the needs of certain student populations and districts

Effect on California Schools
Simplifies, stabilizes, and makes more transparent the dozens of different revenue streams going to California schools. In addition, the LCFF also steers more resources to districts with higher needs

2013, many indicated that Propositions 30, 55 and the implementation of the Local Control Funding Formula were critical to stopping the downward spiral in public education investment effort that began with the shock of the Great Recession. Others indicated that while these changes constituted a sharp improvement over what came before, they remain insufficient to achieve genuine fully funded public schools. In asking stakeholders about these changes, a teacher from southern California said:

“Prop 30/55 is wonderful to have procedural things in place, but how do you have the 4th largest economy in the world and we fund education at a fraction. So I love the progress we might make, but at each one, we can see some of the upsides, but from an educational perspective they're inadequate.”

Teacher | Southern California

In summary, education funding in California shifted away from predominantly using local sources to using state sources to support education financing over the last 50 years, and the last decade has seen both a welcome consolidation of revenue flows and a more equitable distribution across districts. But overall revenues in the state remain too low to reliably support public education at efficient levels, and this overall revenue shortfall is exacerbated by sharp caps on local property taxes, essentially throttling one promising source of revenue for education.

A union leader from southern California said:

“Prop 55 has kept us afloat. At the time of the original Prop 30, we were facing an original doomsday that would be cataclysmic.”

Union Leader | Southern California

This sentiment was echoed by a union leader from the Central Valley:

“If Prop 55 would be gone tomorrow, it would be a big hole/ it would be felt... It would be great to see a way forward for the extension could be bigger and bolder.”

Union Leader | Central Valley

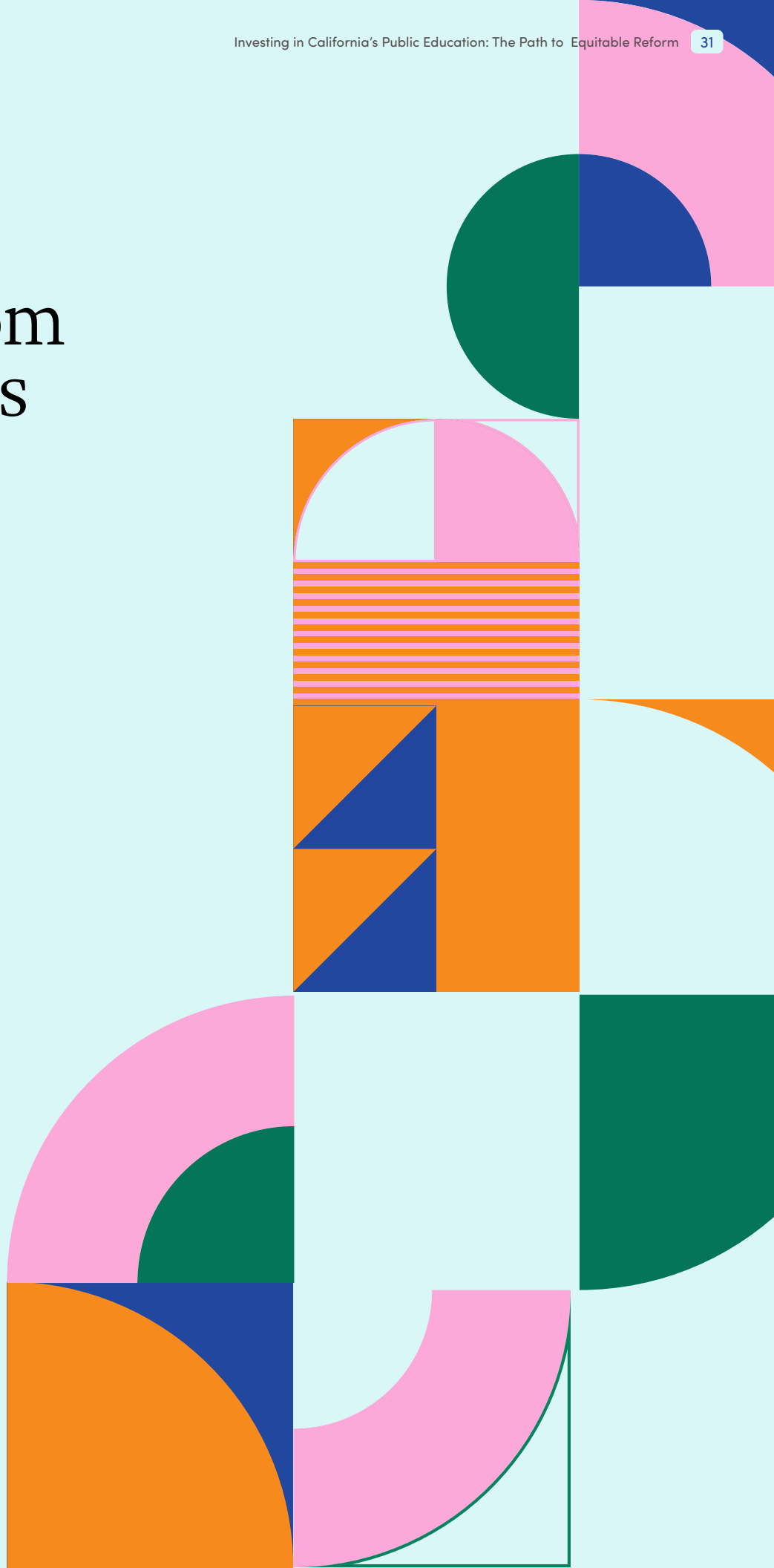
Photo-Voice Project

“This is our theater departments costume storage. It's become quite extensive after years of shows. It allows us to produce higher quality shows and allows us to purchase new costumes when needed because we don't have to buy new costumes for every show.”



04

Lessons from Other States



In this section, we explore how other states use different revenue streams and other policy targets to fund education and explore if there are lessons for how California could improve its education funding adequacy and equity. Some more detail on specific case studies of policy developments from other states is provided in **Appendix 3**, later in this report. In the rest of this section, we will mostly highlight California's ranking in several cross-state measures of school adequacy and distribution and draw broadly on the case studies to make some observations about successful policies in other states.

We continue using the adequacy definition from Part 1, in which education is viewed as "adequate" when the funding is enough to support every student succeeding to an average score on national standardized tests. We caution again that average test scores shouldn't be the end-goal of funding policies, rather, they are convenient measurable benchmarks that all schools should be able to hit and then surpass to provide excellent public education. To define equity, we use a definition from Darling-Hammond (2019) of the Learning Policy Institute, which defines a progressive funding distribution as one which provides funding to districts where at least 30% of the students live in poverty at levels that are at least 5% above what is provided the lowest-poverty districts.

Distribution of Federal, State, and Local Sources of Revenue

To get an overall sense of California's revenue streams for education compared to other states, **Figure E** shows the share of total revenue coming from federal, state and local sources, ranked by the share coming from local sources in the most recent year we have data available, FY 2022.

Figure E shows the share of total education revenue from federal, state, and local sources, by state.

Data are for the 2021–2022 school year.

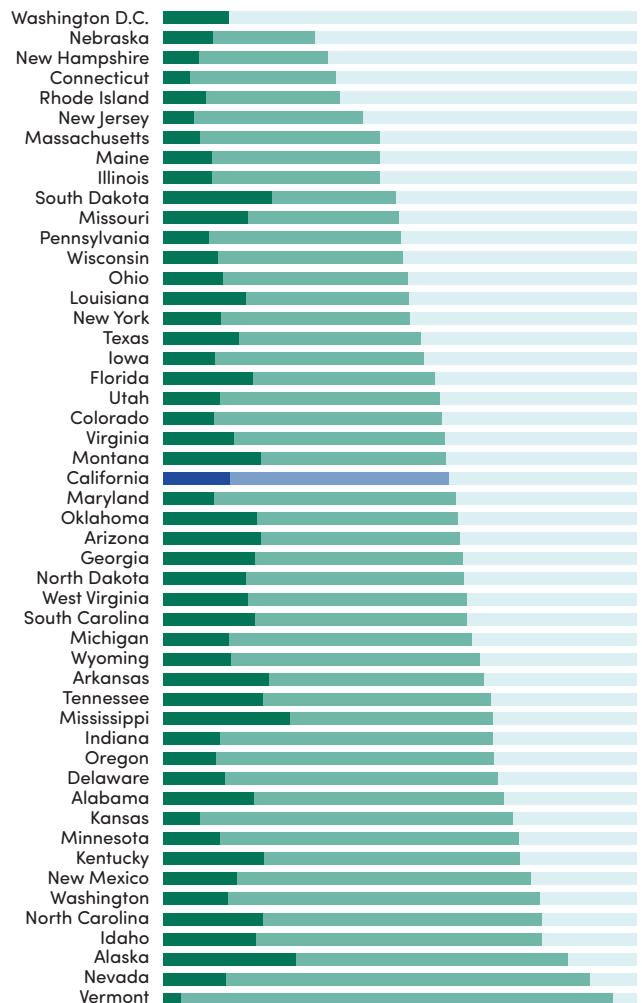
Source: Author analysis of National Center for Education Statistics, Common Core of Data, "Local Education Agency (School District) Finance Survey" data.

How is Equity Measured?

To define equity, we use a definition from Darling-Hammond (2019) of the Learning Policy Institute, which defines a progressive funding distribution as one which provides funding to districts where at least 30% of the students live in poverty at levels that are at least 5% above what is provided the lowest-poverty districts.

Figure E

Spending from Local Sources Varies Widely by State



Federal revenue share

State revenue share

Local revenue share

States that tend to see the highest measures of student achievement — like Connecticut and New Jersey — tend to have a much larger share of educational revenue coming from local sources. These states also receive a smaller share of federal revenue, in part, because they put a lot of funding into K-12 spending and have lower than average rates of poverty and hence don't qualify for as much federal aid as states that spend less on education overall.

By contrast, California currently ranks near the middle of the country in terms of its share of education revenue that comes from local sources, a ranking that is suppressed by Proposition 13. Using the Local Education Agency School Finance Survey (2022) for FY 22, we found that California has one of the lowest shares of education revenue coming from property taxes.¹⁶ In FY 2022, around 17% of California's education revenue came from property taxes, while the national average is closer to 25%, with some states (like New Jersey) getting as much as 50% of their total education revenue from property taxes.

To be clear, local funding and property taxes is not the only way to fund education, and in fact, when it is the sole or primary source of education funds the result can be vast inequalities in educational support as potential property tax revenue is tightly correlated with wealth and property values. However, given that overall spending levels across much of the nation are too low to maximize the potential social returns from K-12 education, state and local governments should be maximizing the amount of revenue they can feasibly collect along every margin. Given the long history of property taxes and the United States — and given as well that education spending boosts property values which can greatly blunt any economic burden of property taxes — allowing this source of revenue to erode over time is quite damaging to all forms of public investment, including public education.

The data highlighted throughout this report establishes that the overall funding levels for California K-12 public education are inefficiently low and there is significant scope for higher levels to boost student achievement and later life success. However, it is also important to examine the distribution of state and local resources across districts with different income levels to get a sense of how California does in terms of funding equity. **Figure F** ranks states based on the surplus (or shortage) of funding they provide to districts where at least 30% of students live in poverty.

While many states had progressive funding distributions in 2022, providing 105% or more to districts with 30% or more neighborhood poverty, California ranked particularly highly, providing 27% more (8th out of 50 states). This success can be largely attributed to the LCFF program's funding structure, which purposely structured funding to be based on student need in the district and is a sign that this program is clearly leading to greater equity in funding in California, relative to other states.

Figure F

California is One of the More Equitably Funded States

Funding that goes to districts with 30% or more neighborhood poverty as a share of funding for districts with no neighborhood poverty, 2022.

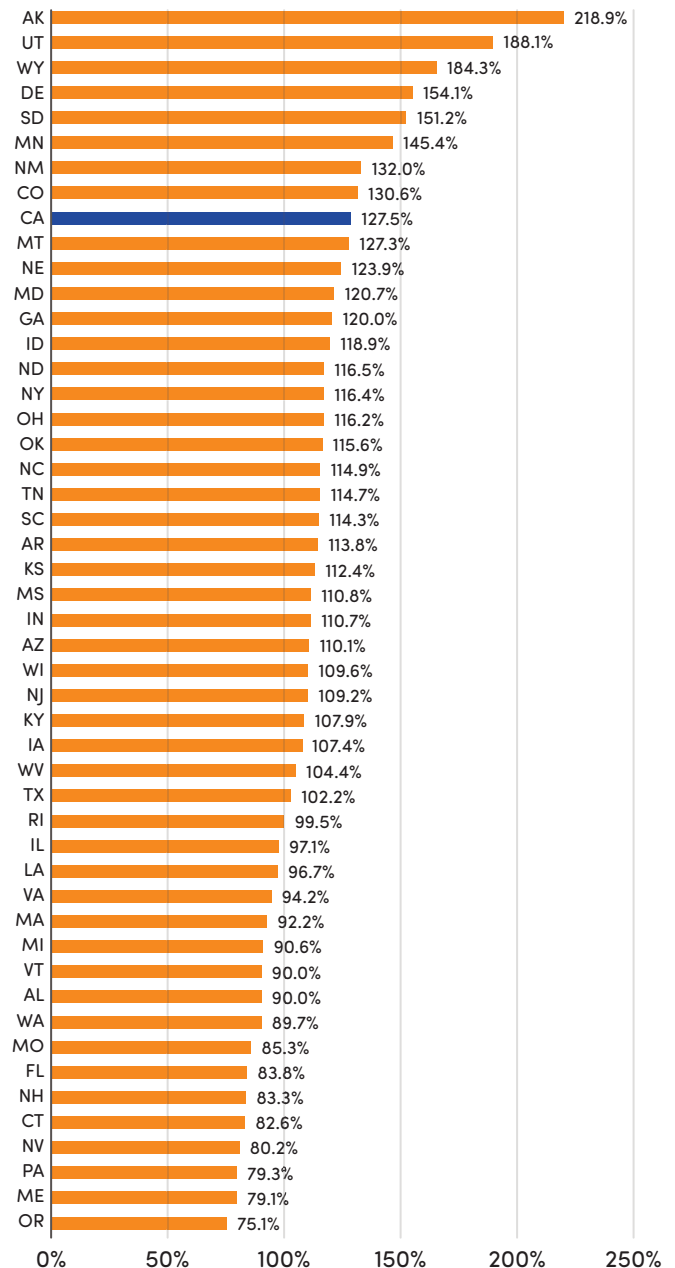


Photo-Voice Project

“

This is a picture of the feminine product dispenser in one of the bathrooms at school. This one was empty and I have never come across one that had products in it. This was an issue at my middle school as well. I think this greatly affects students because some students forget products or cannot afford them and they should be accessible to students at school.”



Lessons from Case Studies Highlight the Importance of Overall Funding Levels in a State

A clear theme in 3 of the 4 case studies discussed in **Appendix 3** is an external forcing factor (court cases) forcing states to move towards greater equality in funding across school systems, but starting in states where higher-spending districts with politically influential constituencies clearly valued school spending.

This meant that greater equality in spending across districts was a leveling-up of districts with more need, not a leveling-down of districts that were making large investments.

These key prongs seemed absent in North Carolina, which saw two waves of school finance reform launched without the spur of court cases. Potentially because there was no external forcing mechanism to keep district spending equitable, it was possible for state effort in sustaining the financing reforms (whose most consequential outcome was better pay for teachers throughout the 1990s) to flag. And in the 2000s, it did flag, and North Carolina has sunk back down the ranking of states based on their educational investment effort.

One lesson for California is that the permanence of the LCFF should serve it well. The LCFF provides a forcing factor that steers educational financing progressively across districts. Another lesson is that given the permanence of the LCFF, the remaining key challenge is locking-in long-term adequacy of revenue dedicated to school financing.

05

Policies Built on
California's Financing
Reforms Can Ensure
an Excellent Public
Education for All
Children



California undertook education reform to boost the progressivity of school spending and progressive tax initiatives raised the overall level of spending in the second half of the 2010s. In the coming decade, they should be built upon and extended to realize the full potential of investments in today's children and tomorrow's workforce. Below, we highlight the broad principles and few specifics of what this future reform agenda should include. One key theme to the recommendations is "first, do no harm".

Before getting into the principles and some specifics of education financing reforms, it should be mentioned that a key strength of the California public education system — including its financing — remains strong collective bargaining rights for teachers. States with stronger collective bargaining laws for teachers generally have smaller "teacher pay penalties" — the gap between pay for public school teachers and similarly-credentialed workers in the private sector. Given the huge importance of quality teachers and other educational staff to student achievement and outcomes, reducing teacher pay penalties should be a key priority for those interested in more-effective public schools.

Further, rigorous research has shown that states with strong teachers' unions were far more effective in translating the increased state aid mandated by recent decades' court cases into more per pupil funding in districts. Brunner, Hyman, and Ju (2020) found that in states with strong teachers' unions court-ordered increases in state aid translated one-for-one into increased spending in local districts. But in states with weak unions a dollar in increased state aid translated on average into \$0.75 in property tax cuts.

Broad Principles

The broad principles for reforming California's educational financing are clear: raise more overall revenue for schools, increase the LCFF base grant, and bolster additional funding needed for high-need students.

Boosting Overall Revenue for California's Schools

The first move for ensuring strong overall revenue for California's schools is essentially do no harm. Concretely, this means at a minimum extending Proposition 55 after its current date of expiration in 2030. Proposition 55 was passed in 2016 to extend many of the provisions of Proposition 30, which provided vital revenue that allowed the enactment of the LCFF to be a success.

While both of these propositions included time limits for the additional revenue measures they enacted, it's time to make these measures a permanent part of California school financing. The social returns to these revenues have been demonstrably large and there is no reason to allow this to regress. Further, the case studies in the previous section show that if revenue sources are not permanent there is the possibility of backsliding. If Proposition 55 was unwisely allowed to expire, this would constitute roughly a 15% cut in the resources available for California's public schools. This would greatly damage student achievement and later life success and deprive the state of large economic and social benefits.

Even including the revenues provided by Propositions 30 and 55, the main source of revenue for California schools stems from the Proposition 98 guarantee that public education (including community colleges) receives 40% of the state's General Fund. This means that any measure that increases revenue for the state General Fund will strongly redound to the benefit of public education. One obvious place to look for more revenue for the state's General Fund is from corporate taxes. These taxes are highly progressive in their incidence (ie, their burden is shouldered overwhelmingly by wealthy households). Corporate taxes currently account for about a tenth of the state's General Fund revenue, but a number of reforms have been identified that could boost this.¹⁷

Finally, substantial reform to Proposition 13 could provide vital resources to California's schools. If a Proposition 13 reform raised property tax revenues this could support an increase in the overall LCFF "buckets" of per pupil spending that are available to each district. One obvious area of potential reform for Proposition 13 concerns its limits on property taxes paid by businesses and corporations. Most of the debate surrounding Proposition 13 concerns homeowners and their desire for capped property taxes. The virtues of giving this tax benefit to often-wealthy homeowners is surely debatable at best. But what is less widely-recognized and far less broadly-defended is the large tax benefits that Proposition 13 provided businesses and corporations: the property tax caps and locked-in valuations between sales applies to *commercial* properties as well as *residential*. The revenue losses stemming from these commercial tax breaks are large and extremely regressive — it has been estimated that 80% of the revenue losses from commercial property tax caps are from the largest 8% of properties.¹⁸

Increasing the LCFF Base Grant

The LCFF funding formula admirably accounts for many of the higher needs of low-income students in the state. However, it could be improved to make sure no student's needs go unrecognized by the funding formula.

One meaningful reform would be an increase in the base grant itself within the LCFF. Because the supplemental and concentration grants are calculated as percentages of the base grant, raising the base would automatically lift funding across all three components. Strengthening the foundation of the formula helps mitigate any impact of California's student population shifts.

Reforms to the supplemental grant could account for students that are "dual-need" – for example, students that are both English learners and from low-income families. Finally, consideration of reforms to the supplemental and concentration grant components of the formula could deepen the equitable distribution of education dollars in California.

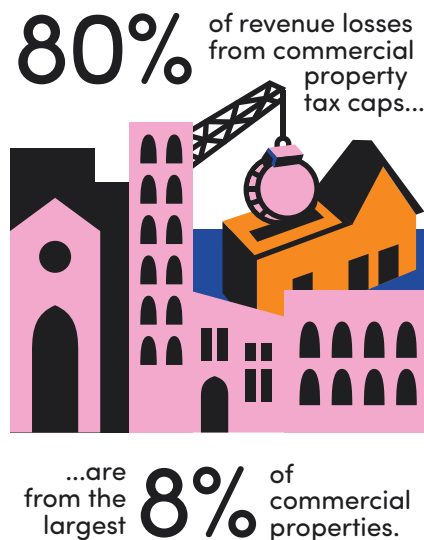
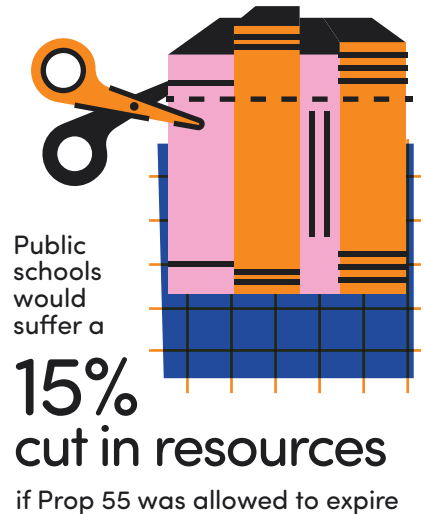


Photo-Voice Project

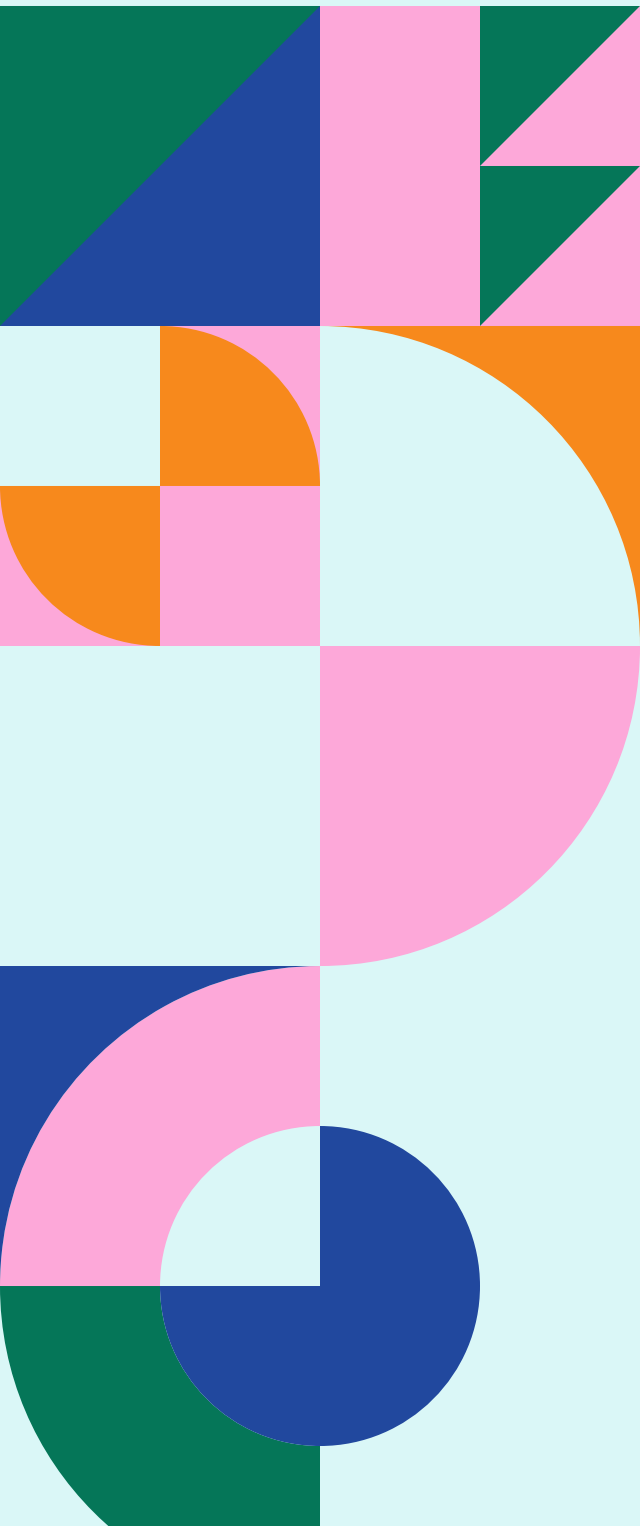
“ This photo [shows that the school] does not fully resource students as it shows the terrible cell service our school provides students, even in the event of emergencies. The lockdown mentioned in the screenshot lasted for an hour and a half and happened my freshman year of high school. My phone was on SOS the entire time, therefore I was unable to text my single, working mother of any updates to the situation. The message from the screenshot didn't even send until we were well in the lockdown period.”



Conclusion

Investments in public education across U.S. states face mounting headwinds. But choices about how much of society's resources to dedicate to universal, high-quality education are primarily in the hands of state and local policymakers. In California, the choices made by voters and policy leaders over the past decade or more have made improvements to the overall level and the equitable distribution of school funding.

These decisions have paid off in student achievement and later life success that is significantly higher than it would have been absent these policy reforms. This will pay social, economic, and fiscal dividends to the state for decades to come. But there is scope to increase these dividends for future generations by building on the last decade's reforms and undertaking even more ambitious efforts to fully-fund every public school in California.



Appendix 1

Overview of Focus Groups

Focus groups rely on the interaction within the group to produce data and insights that would be less accessible without the interaction found in a group. Topics and questions are supplied by the researcher who takes the role of moderator. Focus groups are helpful in generating group discussion and evidence about similarities and differences in the participant opinions and experiences, and for identifying conditions such as “best” or “worst” practices.

The recruitment and participation of stakeholders into the focus groups, largely facilitated by IFT, were designed to capture a wide variety of roles, tenure, and geography in the K12 education landscape. Specifically, we outlined six key groups of stakeholders: 1) Teachers; 2) School administrators; 3) Superintendents; 4) School Board Members; 5) Education union leaders; 6) Youth group advocates. Together, these groups provided a diverse set of perspectives on issues currently facing California Public Schools.

A typical focus group contains 4–10 participants and 3 of 5 of ours did too. Two focus groups fell outside that range, consisting of 2 and 19 people, respectively. The focus groups lasted for 75 minutes in each instance. Of the 5 focus groups, 3 were held over Zoom and 2 were held in person. Hilary Wething guided the discussion using the same open-ended questions for each group, while allowing the group to talk with each other rather than the facilitator. Wething — in consultation with IFT — led the question development to ensure stakeholders spoke about the challenges, opportunities, and actionable fiscal and policy goals for fully funding K–12 education in California. Wething recorded each discussion and then transcribed the discussion for analysis. In the analysis presented below, Wething focused on key themes that spanned across focus groups, while noting exceptions to those themes.

Appendix 2

Recent Research Highlights the Benefits of Greater Investments in Public Education

Evidence from pre-COVID “natural experiments”

Research prior to COVID-19 used exogenous shocks from court-ordered school finance reforms to assess how additional funds affected student outcomes. Jackson, Johnson, and Persico (2015) used longitudinal data to trace the educational trajectories and adult earnings outcomes for a nationally representative set of students who were exposed to court orders mandating changes to a state's school finance system. The authors found that a 10% increase in school spending for 12 years led to 7.7% higher wages and a 9.8% increase in family income in adulthood. Large positive effects were also found for high school graduation, completed years of education, and a reduced incidence of poverty in adulthood. Others have studied more recent reforms and found positive effects on high school graduation rates (Candelaria and Shores, 2019; Rothstein and Schanzenbach 2022) and an increase in college enrollment (Rothstein and Schanzenbach 2022; Hyman, 2017). Additionally, increases in the level of education spending reduce inequalities between students in low-income neighborhoods and students in high-income neighborhoods (Lafortune, Rothstein, and Schanzenbach 2018; Biasi, 2019).

In California, Lafortune and Schönholzer (2022) examined a large increase in educational facility investments in the Los Angeles Unified School District (LAUSD) between 1997 and 2008. Over this period, voters in LA approved nearly \$20 billion in state and local bond issues to finance increased educational expenditures. This large investment effort proceeded in numerous phases. Using the staggered rollout of new facility investments to see which students in the LAUSD were treated with new investments, the researchers found positive effects on test scores, attendance, and home prices.

The increase in home prices is particularly informative because it indicates that the public values well-

funded schools, but that no private market exists to let them easily “buy” these well-funded schools directly. In Lafortune and Schönholzer (2022), the driver of increased school spending was a political intervention (the passage of a bond issue through public referenda) that allowed homeowners to secure the gain in value spurred by higher school investments. Even more important, the gain in home values spurred by each \$1 in extra bond-financed investment in schools exceeded \$1 by significant margins (their preferred estimate is that each \$1 in investment generated \$1.62 in increased home prices). This means that the implicit demand for well-funded schools (which is what drives the increase in home prices when investments are made) is far larger than what is currently being provided through the political process — if this process was providing investment until demand for it equated supply, one would expect each \$1 in extra investment to only boost home prices by that same \$1.

Finally, a recent key piece of evidence linking higher levels of school funding to better educational outcomes comes directly from a rigorous evaluation of the finance reforms in California in the 2010s. Johnson (2023) uses linked district-school data and longitudinal data on specific students to estimate the effect of higher spending levels on student achievement. The research design is able to isolate causal effects by using the staggered timing of implementation of the LCFF formulas to isolate the policy-induced change in school spending that is relevant for each student in his data set. His findings are that LCFF-induced increases in per pupil spending increased math and reading scores in each grade analyzed, reduced the probability of grade repetition, increased the likelihood of high school graduation and college attendance, and decreased suspensions and expulsions.

Evidence from pandemic aid

In the aftermath of the COVID 19 pandemic, three separate legislative aid packages provided fiscal aid to state and local governments with funds earmarked for education in 2020 and 2021. This dedicated education aid was spurred by policymakers seeking to blunt the effect of the COVID-19 pandemic on students' education. Most of the aid was given directly to local school districts without state or federal oversight and was not tied directly to district-level education disruptions caused by the pandemic. Researchers assessing the contribution of federal educational aid to subsequent outcomes (see Dewey et al. 2025) found that each \$1,000 increase in per-pupil spending increased student achievement by just under 1% of a standard deviation. The effect was more pronounced for math than for reading scores. Further, when they restricted their assessment to high-poverty districts, the per-dollar effect was nearly double.

On the one hand, this finding is very much in line with high-quality pre-pandemic assessments of the payoff of greater educational investments and constitutes an important piece of validating evidence. However, what makes this especially informative is that these federal aid packages pushed per pupil expenditures significantly above pre-pandemic levels — generally increasing per pupil spending by *significantly* more in a short period of time than the pre-pandemic “natural experiments” assessed above did. Yet even with this large and rapid increase in per pupil spending, the incremental boost provided to student achievement was in line with what previous increases in spending provided. This provides powerful evidence that the nation is nowhere near reaching any saturation point in public education spending where more money would stop yielding high social returns. This is true even as (pointed out before) too many economists and policymakers argued that we had reached precisely such a saturation point decades ago.

Appendix 3

Case Studies of States Advancing Funding Adequacy and Equity

The following section describes how public policy and court cases guided states that currently have strong student educational outcomes to make the necessary transition towards better and more equitably funding schools in their state. Overall, the lesson from these state case studies is clear: states that improve both the overall amount of funding and the equity in their funding distributions have clear success in student achievement outcomes. One additional finding sticks out from these case-studies – the clear importance of teachers' unions in sustaining state efforts to boost investment effort in public education. In the case studies below, only one state saw a significant ramp-up of state investment effort that yielded excellent results but was subsequently largely reversed. That state was North Carolina, also the only state among the case studies that does not permit collective bargaining for teachers. This finding is not a coincidence, academic research has shown that teachers unions lead to higher spending levels and a more progressive distribution of spending across districts.

Connecticut

Connecticut's education reforms stem from a 1977 court case (*Horton v. Meskill*), in which the state Supreme Court ruled that Connecticut's current financing system for education was illegal because it relied disproportionately on local property taxes, leading to inequalities in funding across districts. As a result, in the 1980's Connecticut enacted large scale policies, to equalize education funding and improve the teaching profession. These reforms dealt with disparities in school funding left by local property taxes by providing incentives to raise teachers' salaries and redistributing school funding so that more resources went into low-wealth districts. By 1998, Connecticut 4th graders were #1 in the country in reading and math and had reduced the achievement gap between white and non-white students.

Massachusetts

[Massachusetts](#) is one of the top states in student performance, leading in achievement on the National Assessment of Educational Progress since 2002. This lead in student achievement is in large part due to the policy changes and improvements to education funding they made in the 1990s. Specifically, in 1992, the *Hancock v. Driscoll* court decision mandated an overhaul of school funding in the state. In 1993, the state enacted the Massachusetts' Education Reform Act, a policy that provided greater education funding investments to schools with greater need through a funding formula that equalized funding from local sources and, similar to LCFF, added funding to districts with higher proportions of students from low-income families and English language learners.

Beyond additional funding for K-12 schools, Massachusetts increased state funding for local early childhood programs by 500% in the first 4 years of the reform, and launched a commission on Early Childhood Education which developed plans for early education and care in the state.

The policy also added updated statewide standards for students, schools, educators and districts, and created more learning and professional development opportunities for school leaders, among other changes. These professional development opportunities included summer institutes in math and science and dedicated funds for professional development for every teacher as well as redesigned standards for certification and re-certification.

While Massachusetts remains in the lead on educational testing, a few cracks in the system have emerged in recent years, due to tax caps which disadvantage poor neighborhoods.

New Jersey

Following a string of court cases that ended in *Abbott v. Burke* in 1996, [New Jersey](#) enacted policy to create “parity” in spending for low-wealth, high-minority districts. This parity is defined as supplementing local funding with state funding to ensure that per-pupil spending in the 28-30 Abbot districts (those identified as low-wealth and high-minority) is brought up to the spending levels in New Jersey’s 110 suburban districts with strong educational achievement. The funds were dedicated to implementing new curriculum, providing early childhood education for 3- and 4-year olds, reducing class sizes and investing in school facilities, student health and social services and summer school programs.

These investments paid off. By 2007, New Jersey’s ranking on reading and math assessments rose to the top 5 on the NEAP. The progressive funding model also led to reductions in the achievement gap between white and nonwhite students, both in 4th grade and 8th grade reading and math tests. These gains are particularly impressive because New Jersey is a racially diverse state: students of color comprise over half of the New Jersey public school population (with a large share of those students coming from low-income families. Today, New Jersey still ranks high in 4th and 8th grade national test scores for reading and math. Among 4th graders it ranks 9th in math and 2nd in reading and among 8th graders it ranks 4th in math and 2nd in reading.

North Carolina

North Carolina’s education reforms occurred in two waves, the first began in the late 1970’s through the early 1980’s, and the second began in the mid-1990’s, ending in 2001. In the first wave, North Carolina enacted the 1983 Elementary and Secondary School Reform Act, which increased school funding and updated curriculum expectations for students. Moreover, it increased standards for teacher credentials and recertification and required all publicly funded schools of education receive national accreditation.

In 1997, North Carolina passed the Educational Excellence Act, which increased funding to support teachers through raising salaries, improving the quality of teacher preparation, mentoring and credentialization. North Carolina also launched the “Principal Fellows Program” in 1993 to recruit and retain principals in public schools. Following these initiatives, North Carolina was able to significantly narrow achievement gaps for non-white, low-income students. However, in more recent years, North Carolina has not been able to sustain that degree of educational funding investment and student educational attainment has stalled or been reversed.

Endnotes

- 1 The research underlying the arguments in this section are described in Appendix 2.
- 2 Jackson and Mackevicius (2024) provides an excellent review of this literature and how it progressed over the years. Another overview is provided in Wething and Bivens (2025).
- 3 See Dewey et al. (2025) for an evaluation of this emergency pandemic aid.
- 4 Per pupil spending by district and aggregated to state level draws on NECS (2025a,2025b)
- 5 Leachman, Masterson and Figueroa (2017) provide an overview of falling education spending in the 2010s.
- 6 Again, it's worth noting that the adequacy standard should be seen as a floor, not a target and certainly not a ceiling, on school spending that will generate high social returns. Even students in the lowest-poverty districts, for example, will see performance suffer if their per pupil funding levels are reduced. The leveling of education opportunities and outcomes should be a leveling up, not a leveling down.
- 7 The data in this paragraph on staffing ratios comes from NCES (2025a).
- 8 These estimates come from the National Center on Education Statistics *Projections of Education Statistics to 2030* series.
- 9 Kraft and Lyon (2024) provide evidence on current levels of prestige and satisfaction of the teaching profession compared to historical levels.
- 10 See Corcoran, Evans and Schwab (2004) for evidence on this point.
- 11 For a good review of this evidence on reducing the teacher-student demographic mismatch, see DeCourcy, Wething, and Wilson (2024).
- 12 See NCES (2025b) for the data included in this section.
- 13 See CBO (2025) for these cost estimates.
- 14 See in particular: <https://www.nber.org/papers/w14671>, <https://www.nber.org/papers/w20178>, and <https://gspp.berkeley.edu/assets/uploads/research/pdf/Hoynes-Schanzenbach-Almond-AER-2016.pdf>.
- 15 See Leachman, Masterson and Figueuro (2017).
- 16 This data was accessed at the Common Core of Data program of the National Center for Education Statistics.
- 17 Kitson (2025) offers one such reform.
- 18 See Goldberg (2019) for this estimate.

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