

Research Brief

Have Schools Changed for Good?

California Educators Sustain Covid-Era Innovations

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Executive Summary

California educators have innovated, or reformed, in bold and differing ways in the wake of COVID-19 (Banks et al., 2024). The pandemic may feel increasingly distant, but remarkable and district-led organizational and classroom reforms persist—the focus of this research brief.

We detail organizational and pedagogical reforms—big and small—that local educators have sustained in four districts between 2022 and 2025. These reforms typically do the following:

- ***Lengthen teaching time*** by extending school days, providing various forms of tutoring, and expanding summer learning.
- ***Create active learning roles*** for students, often aided by deepening teachers’ use of digital tools, apprenticing learning rather than relying on didactics.
- ***Widen the aim of schools*** to buoy the health and social-emotional well-being of students, families, and teachers.

This brief also details the external conditions that foster sustainability of innovations, along with a blending of each district’s internal values and educational commitments. The development of state stimulus funding during the COVID period, including new categorical programs initiated by the governor and state legislators, continues to be important for maintaining these reforms. The internal culture and commitments of educators have also influenced the extent and persistence of these reform initiatives.

It’s too early to claim these new forms of schooling or teaching discernibly lift student test scores. Nor can we predict whether these shifts in the social organization of schooling will persist long term. Nonetheless, our research provides insights into how the pandemic and its lingering impacts have altered the operation of K–12 schools in meaningful ways.

A Thousand Flowers Did Blossom

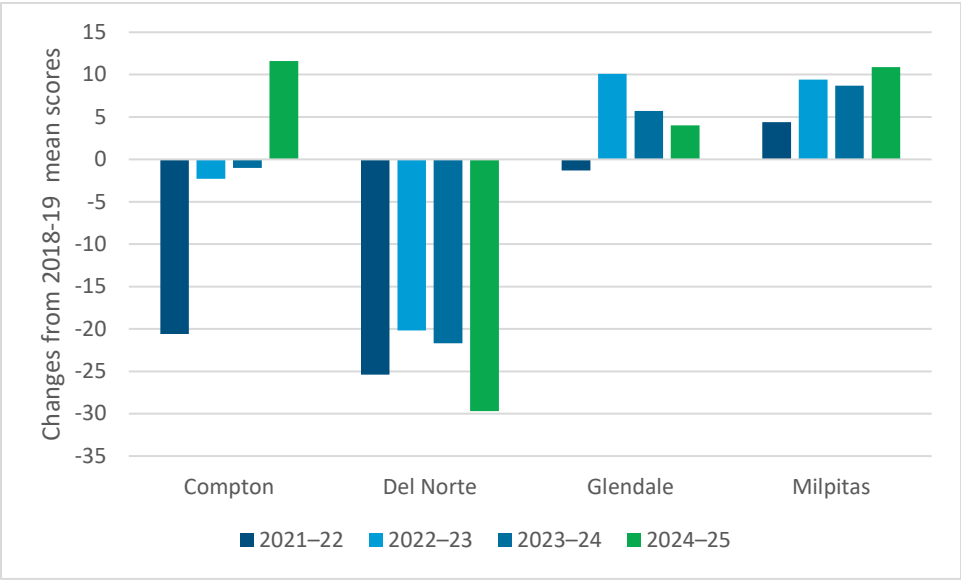
The COVID-19 pandemic exerted a profound impact on children and families (National Academy of Sciences, Engineering, and Medicine, 2023). In Banks et al. (2024) and Slovick et al. (2024), we described how district leaders and site principals took time to explain how they were adapting to off-and-on remote instruction, uneven teacher morale, and death and anxiety that beset many children, families, and staff members as classrooms reopened in the spring of 2021. In addition, we discovered a range of organizational and classroom reforms, some of which touched the everyday experiences of students and their relationships with teachers. In this follow-up study, we ask two overarching questions:

- What kinds of reforms persisted as the pandemic shifted into the rear view?
- What external or inside-the-district forces sparked the rise of intriguing reforms?

To answer these questions, we draw on interview data and field notes from four districts: Compton, Del Norte, Glendale, and Milpitas from spring 2022 to spring 2025. A descriptive summary of student demographics, educational needs, and math/English language arts proficiency rates is included in Exhibit A1. Compton and Del Norte serve mostly low-income and working-class families. In contrast, Glendale and Milpitas host a blend of middling and blue-collar parents and students.

Students across the four districts are on different trajectories since the pandemic. Exhibit 1 displays post-COVID change in average student scores in fourth-grade math, relative to scores pre-COVID (2018–19). In Compton, after a sharp decline in the wake of school closures, math scores were improving, exceeding pre-COVID levels, in 2024–25. Students in Glendale and Milpitas experienced little or no learning loss in the pandemic’s wake, and achievement levels continued to grow despite the pandemic. Del Norte has yet to recover to their pre-COVID scores, experiencing a bigger dip in 2024–25 than any year since the pandemic.

Exhibit 1. Changes in Average Fourth-Grade Scale Scores From 2018–19, by District



Note. Data are from California Department of Education (2025).

In proceeding sections, we first review the many changes observed in the immediate post-COVID period and then discuss the subsets of changes that have persisted.

A Flurry of Adaptations and Innovations Immediately Following the Pandemic

Districts adapted to the pandemic in two main ways. First, leaders mobilized and implemented digital tools to support remote instruction, organizing materials and creating engaging lessons, with the use of digital resources and a universal learning management system continuing beyond the pandemic. Concurrently, districts reallocated resources and staff to support the health and well-being of families and teachers, with varying levels of ongoing support across districts.

DEFINING VARIOUS REFORMS

Organizational reforms shift the way schools are organized, for example, adding an additional period so students can enroll in another elective.

Pedagogical reforms affect how instruction is arranged or alter curricular content and teaching practices.

Technological reforms include the adoption of new technologies. For example, many districts have opted to use one learning management system to create consistency for students and families across the district.

Structural reforms change how districts approach certain roles and activities.

Incremental reforms are peripheral adjustments that do not impact teaching and learning or change the relationships or roles of students and teachers.

Exhibit 2 sorts these initial reforms based on their structural or incremental nature. Several *structural changes* have altered the roles of teachers and students, even widening the aims of schools to address the broader motivation and well-being of students. Compton, for instance, created a variety of hands-on courses and extracurricular activities, where students learn to code or build robots and drones. These activities occur in regular courses, as well as during extended-day activities. Del Norte has dramatically expanded health services for families, along with steadily attending to the physical and social-emotional health of students. These substantive changes shift the roles of student or teacher and rearrange district and school staffing to rebalance the school's work in the local community.

Exhibit 2. Structural and Incremental Reforms in Four School Districts

District	Structural change—roles and activities	Incremental change—adjustments to social organization
Compton	<i>Social-emotional support:</i> Flood of adults, forming relationships with students; mobile health clinic; wellness centers; weekly SEL sessions (districtwide approach) <i>Community outreach:</i> STEM fairs, recruiting parents into school activities <i>Digital tools:</i> Core curriculum digitized, along with possible classroom activities (requiring digital platform) <i>Active learner roles:</i> Students as creators/builders with coaching from teachers via CTE pathways, STEAM labs, E-sports	<i>Expanding dual enrollment:</i> Wider access to college prep courses
Del Norte	<i>SEL support:</i> Expansion of clinically trained adults; mobile health vans; wellness rooms (districtwide approach) <i>Community outreach:</i> Weekly podcast to update families on district happenings; family liaisons to build relationships with students and families as well as monitor student attendance and engagement	

District	Structural change—roles and activities	Incremental change—adjustments to social organization
Glendale	Seven-period day + block scheduling: Addition of extra period to enroll in an elective and block scheduling Childcare expansion: Revamp of childcare system to better serve family needs Dual immersion: Expansion of districtwide dual immersion program to include youngest learners in the district	Outdoor classrooms: Creation of outdoor classrooms to increase student engagement SEL support: New culturally responsive curriculum during advisory period; wellness centers; daily activities during lunch to build student morale (decentralized, school—rather than districtwide—approach) Tutoring: Students as peer tutors to help with learning recovery
Milpitas	Active learner roles: Innovation campus (new construction), maker workshops, teachers as coaches; Mustang Academy with small cohorts and project-based learning Delineating student competencies: PLC work in tracking student progress on clear competencies, advancing student efficacy	SEL support: Mentors assigned to students with periodic check-ins, meeting for lunch (decentralized, school—rather than districtwide—approach) Tutoring: Contracting with private and nonprofit vendors Digital tools: Single, unified software for coursework, grading, communicating with families Expanding dual enrollment

While some districts have embraced sweeping structural changes that redefine the roles of teachers and schools, other adaptations have been more incremental, often operating at the periphery of teaching and learning. For instance, multiple districts hired attendance clerks to improve student attendance—a necessary role to address the postpandemic absenteeism crisis (U.S. Department of Education, 2023), yet one that leaves the fundamental social dynamics within schools largely unchanged. In Milpitas, adult mentors meet monthly with high school students over lunch to foster supportive relationships. Meanwhile, Compton took steps to centralize resources by digitizing class syllabi and classroom activities for teachers’ use. Although these modest adjustments may improve pedagogy or enrich relationships among students and adults, they tend to fit within the boundaries of traditional public school roles and routines.

Initiatives designed to support student social skills and emotional well-being—such as hiring additional counselors, providing access to hotlines for immediate therapy, or conducting periodic surveys to monitor the social-emotional health of students—also operate on the edge of the school’s conventional work. While valuable, these efforts contrast with the more

transformative changes that seek to fundamentally reshape the educational environment and relationships within schools.

Live or Die? Innovations That Persist

Many of the innovations listed in Table 1 have not survived. At the same time, several reforms have stuck inside the four districts, altering the daily work of schools and lifting the motivation and learning of students (Exhibit 3). We still have much to learn about the discrete effects of these persisting changes, and we cannot yet tie these reforms to the bounce-back in student learning enjoyed by some districts. For example, the sustained investments in SEL programming are encouraging, as robust evidence links SEL interventions with improved skills, attitudes, behaviors, school climate, peer relationships, and academic achievement (Cipriano et al., 2023). At the same time, evidence on academic recovery programs, such as extended school year, after school, and tutoring, has been limited; although intensive interventions hold promise, districts face multiple challenges implementing these programs at scale (Carbonari et al., 2024). As a result, these programs reached fewer students than intended, and at a lower dosage (Carbonari et al., 2022).

Exhibit 3. Persisting and Fading School Reform

	Reforms	Impact
Persisting	• Shifting resources to students’ health, social and emotional well-being, and increased family engagement • Deeper use of digital tools in classrooms • Nurturing student-adult relationships • Active learning roles for students	May lift student engagement, learning recovery, and well-being (Cipriano et al., 2023)
Fading	• Longer instructional time, including tutoring • Additional counselors • Virtual campus and schooling option	May yield continued benefits post-COVID, but existing evidence shows limited benefits (Carbonari et al., 2024)

In the following sections, we describe the key sets of reforms that persisted in each of the four districts.

Compton

A pair of structural shifts have persisted across the 4 years since Compton fully reopened schools in 2021. First, Compton’s district leaders remain keen on flooding classrooms with more adults. During our visits, the superintendent and school colleagues often referred to a group of volunteers and college interns who tutor students and offer broader support. A district leader provided more details:

In terms of the number of adults we have in the classroom, we have more than 250 tutors to provide additional support. We have partnerships with Cal State Dominguez Hills ... to work with students in small groups to provide the interventions necessary to assist in understanding the information they're struggling with. ... We also have intervention subs that come into the classroom to work with students. We have additional tutor partners ... to work with small groups of students in the same capacity. We also have tutors from Compton [Community] College that assist us in the process.

These volunteers follow individual students through classes, often checking in after school on homework assignments or addressing social issues that may have arisen that day. A significant portion also ensure student attendance by locating those who are absent from class. Tutors work closely with teachers, who share the assignments and learning objectives highlighted each week. This initiative was in place prior to the pandemic, then expanded in collaboration with five nongovernmental organizations and neighboring colleges, boosting the count and intensity of ties with students.

A second structural change at Compton—reshaping students’ daily experiences at school—is a districtwide shift toward career and technical education (CTE). Compton has expanded CTE offerings tied to IT jobs, including coding, robotics, and computer science courses—with basic elements introduced as early as kindergarten. Another district leader described this shift:

[Organizing] simple activities to get started with that computational thinking in preschool. So, it may be just recognizing patterns ... how they can code with that. It's taking a little bit of time, because everybody has a different idea about what STEAM is and what project-based learning is, and [some teachers] don't know how to combine both.

Newly developed courses are designed to align with state educational standards while providing culturally relevant content to Compton students. A new course on hip-hop poetry aims to advance students’ writing skills. Monthly “data chats” between the superintendent and principals track student progress, while pinpointing where teachers and students are falling short. It’s the two-pronged strategy that distinguishes Compton: fostering pedagogical

innovation and active learning roles for students, while also emphasizing fundamental skills in reading, writing, and mathematics.

Compton has jettisoned certain innovations along the way. For example, district leaders became unconvinced that online tutoring was effective, so they redoubled efforts to recruit adult volunteers and replaced conventional forms of tutoring, banking on deeper social ties.

Del Norte

Located in California's far north, Del Norte serves students from working- and middle-class families. The pandemic eroded achievement levels in Del Norte; learning recovery has been slow (Exhibit A–1). Against this rural and economically constrained context, the district became a hub of civic support and information even beyond the pandemic.

COVID's aftermath—death across families, economic distress, angst and disengagement among students—required district leaders to broaden the basic function of the school district (which doubles as the county office of education). A district leader explained their role:

I say this a lot here ... we're the hub of almost everything that happens in the community. You get spokes that come out, right? But when people talk about stuff, invariably the conversation rolls back into schools—whether it's economic development or communication.

In turn, Del Norte invested heavily in expanding their mental health resources. Asked about the district's efforts to widen access to social and emotional supports, a district leader emphasized a mindset shift in the underlying aims of public schools:

I think that the way that students, families, staff, the state, and the feds all view education now is vastly different than it was 4 or 5 years ago. Everybody has different expectations, and now we're having to figure out how to revamp the entire system to address those expectations. Even though there had been an emphasis prior to the pandemic—on social and emotional learning and behavioral support for students—as we come out of the pandemic and move forward, there is a significant change in the emphasis in supporting students socially and emotionally. ... To me, that is just a massive change.

Del Norte hired more counselors and attendance clerks and built quiet and soothing “wellness rooms” that students visit when seeking adult or peer support. District leaders consolidated under one roof a variety of counseling and mental health programs. More broadly, the district has become a preventive health care provider for students and families. The district equipped mobile vans that visit schools, assessing the physical well-being of students and even providing dental and vision care when needed.

Del Norte’s leaders continue to win state and federal grants to help finance this holistic range of health services. The districts’ core budget supports heightened efforts to track students with behavioral or social challenges, working inside schools and with parents. Del Norte also finances a portion of these supports through the California Medical Assistance (Medi-Cal) Program, contained within the state’s federal Medicaid program serving low-income individuals.

In short, district leaders have widened the institutional function of local schools in the community, aiming to lift the academic learning and social-emotional vitality of their students. Existing research shows this holistic strategy can lead to improvement in student and school outcomes (Maier et al., 2017). Del Norte offers a model for restructuring how districts and school leaders work to elevate the broadly defined well-being of students and their families.

Glendale

Located in Southern California, this district has undertaken two reforms, including changes that began before the pandemic and accelerated during it. Students and families in Glendale speak a variety of languages, from Armenian and Spanish to Russian and Mandarin. This prompted Glendale educators to expand dual-language schools and programs across the district. Persisting concerns over attendance, along with a tradition of attracting families outside of Glendale, sparked increased effort to expand dual-language offerings, including those for transitional kindergarten students.

This inventive effort also responds to the ongoing arrival of refugee families, particularly those of Armenian descent from Russia and Ukraine. Glendale’s leaders, emerging from the pandemic, have focused heavily on elevating the early literacy skills of PK–3 students. This is made possible by engaging lower-income families, learning about their situations, and asking how children’s reading and writing skills can be better supported in school and at home. After learning more about the background of its diverse families, Glendale has drawn down new state revenues. A district leader explained:

Some anxiety [persists] in poor communities even as the pandemic feels in the past. But now we are better able to equalize resources across differing parts of the community.

In concert, the district’s focus on PK–3 learners is bolstered by consolidating childcare and prekindergarten options in the pandemic’s wake. Most elementary schools now offer three pick-up times for preschoolers and kindergartners—again, a heightened response to Glendale’s diverse array of parents, many of whom work full time.

Some of Glendale’s earlier reforms have largely faded due to declining school budgets. For example, Glendale had moved to a seven-period day soon after COVID waned, allowing middle

and high school students to select an additional elective. This was seen as one strategy for reengaging students after schools reopened. But extra wages awarded to participating teachers proved unaffordable long-term. Additionally, efforts to boost tutoring for younger students, staffed by older, high-achieving peers, have been cut back, along with additional counselors.

Milpitas

This district's leaders pioneered intertwined reforms in the wake of COVID—placing students in more active learning roles and shifting how teachers mentor and advise their students. Fresh revenues from federal and state stimulus funding allowed Milpitas to build an innovation campus, replete with maker rooms and workshops where students build robots, are exposed to architecture, and learn graphic design. As the district leader explains, the intention is to better engage students by directly applying math, English, and physics concepts and skills:

We are talking about disrupting education. COVID has facilitated design thinking. We no longer seek a sage on the stage. The student now cocreates their learning, rather than being a passive recipient of what the teacher has created.

Closely related, district leaders lead teaching and learning staff to delineate key competencies tied to academic subjects, and leaders nudge teaching and learning staff. Students and teachers now talk through what is to be learned and use practical high-tech tools to do so. By empowering students with their own learning, district leaders hope to improve student engagement and learning outcomes.

Fertile or Parched Soil—Why Do Certain Innovations Take Root?

Through our interviews and field notes, we identified external forces, along with values internal to districts, that contribute to the sustainability of innovations. Forces emanating from outside the district include demographic shifts and declining enrollment and health conditions and family needs, along with state and local financing trends. The values and priorities internal to districts, expressed by local leaders, also condition the extent to which certain reforms survive.

External Forces

Expanded Physical and Mental Health Responsibilities. The pandemic—resulting in disease and death within communities—pulled school districts into the novel role of health care provider. District leaders set up testing stations, distributed meals, and eventually opened vaccine centers. School principals and teachers often lent a hand, allied with short-staffed county health departments (Banks et al., 2024).

In COVID's aftermath, district leaders encountered significant challenges, including a national crisis in chronic absenteeism (U.S. Department of Education, 2023), students and families

experiencing considerable economic and mental health stress (Office of the Surgeon General, 2021), and teachers facing exhaustion (Doan et al., 2024). These circumstances prompted an organizational transition toward prioritizing the well-being of both students and staff, while simultaneously addressing the critical need for learning recovery. Fresh opportunities arose as well. California lawmakers liberalized Medi-Cal reimbursements through the Children and Youth Behavioral Health Initiative to cover the panoply of health services now provided by many districts. Federal grants initially supported advances in counseling and mental health aid for students, many still suffering from anxiety, depression, or disaffection with conventional schooling. The extent to which districts have pursued these new revenues continues to vary, helping to explain local leaders' capacity in sustaining efforts that support the social and emotional vitality of students and staff.

Demographic and Socioeconomic Context. District leaders face a variety of demographic and socioeconomic conditions that shape enrollment levels, community resources, and student attendance. Although districts serving a higher proportion of low-income students received more stimulus funding from federal and state agencies, they face a multitude of challenges. For example, public school enrollment, which was already on the decline before the pandemic, has fallen further, especially for low-income children (Council et al., 2025). Since state funding is based on student enrollment, the declining figure translates to lost state funding. Students from low-income families are more likely to miss school and experience chronic absenteeism (California Department of Education, 2025).

At the same time, California's progressive method of financing schools awards stronger funding to districts that serve lower-achieving students. Districts such as Compton attract grants from companies and foundations to support certain innovations, including new career pathways in robotics, computer programming, and graphic design (also seen in Milpitas). We didn't find the depth and range of innovations was any greater in districts that serve middle-class or better-off communities. We found strong leadership and committed teachers can trump the exigencies that often come with neighborhood poverty.

Competition. When district leaders talk about innovative programs, they often mention their competitors, including charter and private schools, or their ability to attract families from outside district borders. Glendale expanded its dual-language programs to attract families to the district, whereas Milpitas advanced their innovation campus to remain relevant and competitive in Silicon Valley. Both efforts are intended to ensure districts remain "competitive" in the local community, especially when public school enrollment is declining across the state (California Department of Education, 2025). These sources of competition predate the pandemic, but they remained top of mind for many district leaders in COVID's wake.

Shifting Funding and Reform Logics. California’s governor and state lawmakers proved especially active—during the pandemic and since—in pressing a variety of reforms. This has included, since 2020, expanding preschool (transitional kindergarten), offering universal free meals at school, growing afterschool programs, renewing art and music funding, expanding Medi-Cal reimbursement for mental health services, and funding community schools (Lafortune et al., 2023).

These initiatives have provided billions of additional state dollars to local schools, with district leaders noting an increase in available revenue. While much of this funding is flexible, it requires submission of plans and spending reports for each individual program. Educators have noted concerns regarding the increased administrative requirements linked to these initiatives.

Additionally, district leaders express concerns that certain aspects of these reforms may displace locally developed initiatives. State funding secures these policies and prevents the allocation of funds for salary adjustments. Meanwhile, some new funding programs impose more restrictions, limiting flexibility for district leaders who might prefer investing in reforms they consider effective or suitable for their students.

Internal Factors

The inventiveness of district leaders is not solely determined by external forces. The internal culture and commitment of district staff and school-level educators contribute heavily to the scope and persistence of reform efforts.

Engaging Students, Active Learning Roles. We observed in several districts how district leaders placed students in more active, deeply motivating roles as learners. The innovation campus in Milpitas shifted the teacher’s role to expert mentor and coach, while students were invited to become creators and inventors. Teachers and principals in Compton devise courses that spark student interest. Glendale assumes that children of all ages hold enormous capacity to become literate in two or more languages.

In each case, district leaders—working within core budgets—create places where students are trusted to become motivated learners when the content and coaching by teachers moves to novel roles. Didactic teaching of new content is complemented with exciting material and wrap-around support for students who engage in projects with ample intrinsic motivation.

Tools That Enliven Classrooms and Buoy Teachers. The flurry of digital tools arriving with remote instruction has altered the work routines of many teachers. Teaching and learning shops within these districts have digitized countless courses, syllabi, lesson plans, and sample activities. Student work is hosted on easy-to-use learning management systems (e.g., Canvas) used districtwide.

Still, district leaders vary in their embrace of digital innovations. The market of tools and possibilities appears to play a much greater role than any state effort to identify what methods work best for teachers and students. Here too, it's the internal commitment of district leaders to invent motivating forms of teaching and learning with new educational tools.

Enriching Relationships. District leaders have deployed varying approaches to foster connection between adults and students. Compton's leadership focuses on their tandem strategy to track and adjust to student data *and* develop ever more motivating courses, activities, and options for students. This involves building relationships among students, teachers, and the many young volunteers who support Compton students. Milpitas has implemented programs to empower students in their own learning. Del Norte continues to allocate resources for health and social-emotional supports, employing dedicated staff and a variety of funding sources. This holistic approach to promote whole child development stems from a shift in leadership mindset, which prioritizes stronger relationships and a tighter organizational culture inside district offices and schools. "Connection before content," as one local educator told us.

What Next? Implications for Educators and Policy Leaders

Five years since the onset of the COVID-19 pandemic, students have not fully recovered. Students in every grade, every subject, and nearly every student group scored lower compared to prepandemic assessments (National Center for Education Statistics, 2025). As policymakers, practitioners, and researchers reflect on the key lessons learned from the pandemic, our findings provide the following key insights:

- The exogenous shock of the COVID-19 pandemic sparked short-term adaptations (such as remote instruction) inside schools, as well as longer-term organizational, technological, and pedagogical innovations.
- Structural reforms persist in some districts, such as (a) engaging students through more active learning roles, (b) deepening the use of digital tools in classrooms, (c) nurturing caring relationships among students and adults, and (d) shifting resources to buoy the health and engagement of families and the emotional foundations of students and staff.
- Several COVID-era reforms have faded (by 2025). Many districts are returning to lower-intensity tutoring services. The build-up of counseling staff is no longer affordable in many districts. Online schooling options are shrinking or being disassembled. The pruning or preservation of innovations is not always based on evidence of effectiveness.
- Pursuing innovations, both large and small, requires district leaders to respect the conditions in which schools are embedded. These forces include the local demographic

and socioeconomic context, competitive pressures (from charter and private schools), and uncertain and regulated state funding, along with the internal values and educational commitments of district leaders and school-level educators.

- State creation of new categorical programs during the pandemic—expanding prekindergarten, ensuring universal meals, requiring extended-day activities, and providing new art and music options—continues to sustain certain reforms. Some operate on the edge of schools, failing to enrich the core organization of teaching and learning. Duplicative planning and reporting requirements by the state continue to distract local leaders from serious improvement activities.

More data is needed to evaluate whether these innovations will persist and improve student outcomes. Yet our findings identify the conditions under which schools do change—in monumental or incremental ways. Factors such as stable and inspired leadership and a shifting mindset among teachers—seizing digital tools, focusing on student well-being, rethinking their own role as mentors—all contribute. The post-COVID period has shown that, with adequate resources, planning, and strategic investments, public schools can change to better motivate and lift student needs.

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Appendix A. Additional Table

Exhibit A–1. Summary of Student Characteristics of Case Study Districts, 2024–25

	Enrollment	Percent FRPM eligible	Percent English learner
Compton	19,430	89.6%	22.1%
Del Norte	3,661	68.6%	5.3%
Glendale	25,329	63.3%	22.3%
Kings Canyon	9,696	86.9%	24.6%
Lammersville	7,949	11.5%	9.8%
Lindsay	3,928	87.9%	31.6%
Milpitas	10,086	38.4%	20.5%
Poway	34,405	15.7%	6.8%
Sweetwater	35,774	59.2%	22.0%

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