Early Pandemic Response in California

Identifying the Structural and Instructional Changes in K–12

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Contents

Executive Summary

In March 2020, school districts across California closed their doors, rapidly adapting operations and instruction in response to the COVID-19 pandemic. Efforts to understand the immediate impact of the unprecedented closure of schools prompted grave concerns about meeting students' needs, particularly for the most vulnerable. In fact, recent research indicates that learning loss related to school closures in the spring and fall of 2020 was disproportionately experienced by younger students, low-income students, and English learners. However, little is known about the specific changes made to operations early in the pandemic, how these changes may have contributed to this learning loss, and to what extent they will continue to shape student learning and well-being in the long run. This report fills some of that knowledge gap by proffering the first systematic review of school practices within California initially after school closures in spring 2020.

Drawing on a novel dataset constructed from the websites of 168 unified school districts serving more than 40 percent of K–12 students in the state, we examined adaptations to policies and practices in the early period after school closures. We found that districts clearly communicated plans to meet students' basic needs, including providing free or reduced-cost meals and increasing access to technology. In contrast, the information available on districts' websites about instruction, assessments, and attendance was unclear and inconsistent. Moreover, we observed variation in district operations by location and by characteristics of students served. Specifically, we found evidence on websites that:

- Nearly all districts provided no cost meals to students and their families with few eligibility requirements.
- Most districts supported students during spring school closures by increasing access to computers, internet connectivity, and technology assistance.
- The transition to remote instruction took 16 calendar days on average, though for some districts it was immediate and for others it took nearly 2 months.
- Two thirds of districts provided synchronous instruction through conferencing services like Zoom or Google, though some were more likely to use paper or take-home materials. Rural districts and those with a high proportion of low-income students were less likely to offer synchronous instruction.
- Many districts adopted alternative grading plans—such as "hold harmless" policies and pass/fail grading scales—to preserve students' prior academic progress.
- Less than half of districts published plans to track attendance and check on students with low or zero attendance rates.

While it will be some time before the full impact of school closures on student learning may be measurable, understanding how school districts altered operations at the onset of the pandemic is essential to future policy efforts aimed at ensuring compensatory approaches as part of postpandemic recovery efforts across the state.

Introduction

The impact of the coronavirus pandemic on our nation's schools—and the students they serve—is extensive and likely to endure for years to come. In March 2020, K–12 schools across the country closed their doors to ensure the safety of students, staff, and families. Consequently, districts were faced with the need to rapidly adapt operations and instruction in response to shifting guidance from federal, state, and county governmental agencies. These shifts, coupled with the physical, mental, and economic concerns brought on by COVID-19, ushered in an unprecedented context for California public schools. However, research documenting the many changes made to operations is limited, as programmatic responses and alterations made during spring 2020 were not tracked at the state level. This report fills some of that knowledge gap by proffering the first systematic review of school policies and practices within California after school closures. Moreover, the changes documented in spring 2020 are the first hallmark of how districts began to plan for the 2020–21 academic year and the ongoing pandemic.

Examining the immediate shifts demanded of local education agencies (LEAs) at the onset of the pandemic serves multiple purposes: (a) it reveals the priorities of school districts in the midst of rapid change; (b) it informs current local and state policy development as the pandemic continues to shape our institutions; (c) it proffers a potential blueprint for future crises of this magnitude; and (d) it allows us to archive information for future research that investigates the long-term impact of the pandemic on students' educational trajectories. All told, uncovering the policy and operational areas in which districts took immediate action will enable policymakers to gauge the extent to which policies and programs may be quickly adapted in the face of a large-scale crisis, and how these plans can be used to support the present and future needs of students across grade levels.

This report details findings from a research study investigating California public school districts' early responses to the COVID-19 pandemic in spring 2020 after school closures. In this study, we constructed a novel dataset based on publicly available information published on school district websites. District websites are an important indicator of districts' planning, highlighting the extent to which they communicated their activities and, indirectly, their priorities after shelter-in-place orders were issued. As such, this analysis explores the degree of information made available by districts concerning adaptations to policies and practices between March and May 2020. Findings reveal that more information was communicated clearly and consistently around operational changes that would support students' basic needs, with less information available on the specifics of learning and instruction. Analysis also indicates wide variation in district policies and practices with respect to both student supports and learning/instruction; we consider how these responses differ by locale (urban, suburban, rural, and town),[1] the percentage

[1] The locale of a district is defined by the National Center for Education Statistics at the Institute of Education Sciences, U.S. Department of Education. Locale is a measure of location based on data from the U.S. Census Bureau and is determined by population size and distance from an urban center.

of students eligible for free or reduced-price meals (FRPM) under the National School Lunch Program (NSLP),[2] and the proportion of students in a district who are English learners (ELs).[3] Overall, the adaptations made to school operations during the early period after school closures in 2020 reflected an important desire across districts to continue to serve students.

Prior Literature

Research exploring the impact of these unprecedented interruptions to schooling on students and families has already begun. In the early period after school closures, parent and teacher surveys revealed concerning trends about potential disparities in student learning resulting from how instruction is delivered (Hamilton et al., 2020; Henderson et al., 2020), the material that is covered (Hamilton et al., 2020), and the level of student engagement (Kamenetz, 2020; Kraft & Simon, 2020; Kurtz, 2020), particularly for students of color, low-income students, and those with special needs. Generally, these areas of concern arose from the observed or experienced changes to schools' instructional core in response to COVID-19—including the length of instructional time, when students received instruction, and how this instruction was delivered (Cottingham et al., 2020)—as well as the absence of concrete plans for the delivery of targeted services for special populations (Williams, 2020).

Beyond barriers to schooling and instruction, the ability to access and benefit from distance learning is also a function of the resources available to students at home, as school closures disrupted the food security of households and revealed deeper digital divides. Economic conditions resulting from the pandemic placed financial strain on families, including reduced access to meals, with estimates indicating that nearly one third of households with children nationwide were food insecure in April 2020 (Schanzenbach & Pitts, 2020). Ordinarily, school nutrition programs are in place to support children in need, but school closures during the pandemic introduced new challenges for meal distribution (Kinsey et al., 2020). Additionally, as these closures ushered in a move towards remote instruction, students' ability to navigate this mode of learning was dependent upon both technological access and digital literacy skills (Williamson et al., 2020). While the digital divide demanded attention long before the pandemic, its importance is arguably greater with the transition to distance learning—where, without supports, students may be unable to engage fully in schooling. Both nutrition and technological access, in this case, are basic needs that must be addressed to support student learning during school closures.

[2] The NSLP utilizes family income levels to determine eligibility for students to receive free or reduced-price lunch. For this analysis, districts in which more than 55 percent of the student population are eligible for free or reduced-price lunch are considered low-income districts.

[3] While the authors conducted analyses on how findings differed by the percentage of ELs within a district, few differences were observed among districts serving varying proportions of ELs. Therefore, these findings are not presented in the main narrative of this report, but are included in Appendix C.

While bolstering these essential needs is critical for distance learning for all students, research suggests that school closures and the shift to remote instruction may be disproportionally affecting certain groups of students, particularly those from low-income families and ELs. For example, the education level of parents and other adults in the neighborhood surrounding a school was found to be the strongest predictor of its response to the pandemic (Harris et al., 2020), foreshadowing the wide variation in students' experiences during this time. Additionally, parent surveys reveal the difficulty non-English-speaking families faced in understanding communications about school operations, support services, and directions for navigating distance learning (Parent Institute for Quality Education, 2020; The Education Trust–West, 2020). Moreover, a recent survey noted that 45 percent of parents of ELs reported their child was not receiving the English language support needed to engage in distance learning (Parent Institute for Quality Education, 2020). This work has prompted serious concerns about the pandemic's impact on educational equity, particularly for students with the greatest needs (Hough et al., 2020; Marion et al., 2020; Myung et al., 2020).

Early reports on student learning loss during the pandemic substantiate some of these concerns. Based on assessments administered in fall 2020 to more than 100,000 students across the country, findings from Curriculum Associates (2020) suggest that students may not be as far behind as feared. Relatedly, a new PACE brief also drawing on a national sample of more than 100,000 students notes that while elementary students' oral reading fluency development halted in spring 2020, growth rebounded in the fall (Domingue et al., 2021). Though these preliminary trends provide some optimism, research suggests that learning loss is not equally distributed (Chetty et al., 2020; Curriculum Associates, 2020; Domingue et al., 2021). Chetty et al. (2020) observed that low-income students experienced larger and more persistent reductions in learning progress relative to higher income students in their investigation of data from an online learning platform. Similarly, emergent data from a study on student learning in 18 school districts in California revealed that significant learning loss occurred in both English and math for younger students, and that this impact was disproportionate across student groups, with more measured learning loss for low-income students and ELs (Pier et al., 2021). Additionally, some researchers call attention to the fact that a substantial number of students are missing from the fall assessments—students whose performance was lower prior to the pandemic and who were likely to fall farther behind (Domingue et al., 2021). Given that some students may be more academically behind than they would be in a typical school year due to the pandemic (Dorn et al., 2020; Kuhfeld et al., 2020), it is imperative to consider how COVID-19 has shaped—and will continue to shape—districts' plans in the years following the pandemic and, more broadly, the educational context students are experiencing.

Methodology

In order to understand how school districts in California responded to shelter-in-place orders, we constructed a unique dataset from publicly available information using an archive of school district websites generated in spring 2020 supplemented with information from live district websites. As one of the primary modes of communication between districts and stakeholders during the early weeks of the pandemic, these websites provided critical information about how LEAs across the state facilitated continued instruction and supports for students and their families in the midst of school closures and the subsequent shift to remote instruction. While what is communicated on district websites may not always accurately reflect implementation or experiences on the ground, what is posted likely captures the intent of districts. Similar nationwide research using website data about school responses to the pandemic (Harris et al., 2020) affirms our postulation that district websites provide key insights about the multitude of approaches taken across the state, revealing how districts both conceived and communicated their intentions.

Data Collection and Coding

To determine the data to be collected, we first considered broad areas of students' needs and generated a list of questions to consider based on the information districts had shared on their websites. Using a deductive and iterative coding process, key areas of district communication were identified. These key areas are presented in Table 1, along with the research questions associated with each. These domains were then used to develop a data collection tool that consisted of more than 150 categorical variables on school closure dates, instructional plans and delivery, grading and attendance procedures, access to technology (i.e., laptops, Wi-Fi), and other resources schools provided (e.g., meals, counseling).

Table 1. Domains for Data Collection of California's Public School Districts' Responses to the Coronavirus Pandemic

Domain	Key Questions
Transition to remote instruction	When did schools suspend regular operations? When did remote learning begin?
Instruction	After reopening, how were courses taught? How much time did students spend with teachers? What learning platforms were used?
Assessment and evaluation	After reopening, how was student performance measured? What grading policies were enacted?
Attendance	After reopening, how was attendance taken? What attendance policies were in place?
Technological support	Were students issued a device to support remote instruction? Was free or low-cost internet made available?
Nutritional support	Were free meals provided to students and families? What meals were available and how often?

Sample

In California during the 2019–20 school year, 1,037 LEAs, operating both schools and educational programs, served more than 6 million students across the state. Of these LEAs, 344 are unified school districts that enroll students in kindergarten through 12th grade; 523 are elementary school districts; and 76 are high school districts with limited grade spans.[4] As unified school districts serve nearly three quarters of the state's K–12 students, we focused data collection efforts on these districts. From the 344 unified school districts, we identified districts through a stratified random sampling method to ensure those included reflect the diversity of districts in California by locale, geography, and size.[5] The total sample includes 168 districts serving more than 40 percent of all students in the state. Table 2 presents the key characteristics of these sample districts as compared to California as a whole.

Table 2. Demographic and District Characteristics of Analytical Sample

	Sample	California
Number of districts	168	1,037
Total enrollment	2,555,980	6,163,001
Characteristics of Student Population (percentages)		
Eligible for free/reduced-price meals	62.8	59.3
English learners	19.3	18.6
Black	6.4	5.3
White	20.0	22.4
Latinx	56.5	54.9
Asian American and Pacific Islander	12.3	12.1
District Locale (percentages)		
Urban	53.5	46.2
Suburban	39.6	44.3
Town	5.2	6.2
Rural	1.9	3.3

Note. Data points calculated by authors based on publicly available datasets from the California Department of Education (https://www.cde.ca.gov/ds/dd) and the National Center for Education Statistics (https://nces.ed.gov/programs/edge/Geographic/SchoolLocations).

[4] The remainder of LEAs include statewide charter schools and county offices of education. Numbers obtained from Education Data Partnership (https://www.ed-data.org/state/CA).

[5] District locale was determined using the National Center for Educational Statistics' four categories: urban, suburban, rural, and town. District size was determined through total enrollment; in our stratified random sample, we divided districts into small and large districts at the median (M = 1,630 total students). Finally, we defined four regions in California: Northern California, the Greater Bay, the Central Valley, and Southern California.

In the findings below we discuss key differences across districts, highlighting when those differences are statistically significant.[6] As disparities in academic performance and educational resources have long been documented between students from differing economic backgrounds and across districts in varying geographic locations (e.g., Reardon, 2011; Reardon et al., 2018; among many others), we examine district responses along the important dimensions of the proportion of low-income students enrolled and geographic location.[7] Full results are available in the appendices.

Findings

A Majority of Websites Clearly Outlined Districts' Plans to Support Students' Basic Needs, Including Nutrition and Access to Technology

In the midst of the challenges presented by COVID-19 and the move towards remote instruction, unified districts worked to ensure basic needs were met for students and their families. This was evident in both the inclusion of nutrition and technology postings on most districts' websites as well as in the level of detail often available. In fact, district websites were more likely to publish and update information on meal and technology distribution efforts—providing clear and consistent communication about the changes being made—than on other areas of operation, including instruction. This prioritization reflects the natural concerns that emerged when schools first closed. The shutdown of businesses and schools in response to shelter-in-place orders threatened access to nutrition for many households. As such, food security was at the forefront of decision-making across the state. Additionally, the sudden shift to remote instruction situated the digital divide in a new context, prompting logistical questions about instruction for students now learning from home. Taken together, these basic needs represent a portion of the key components necessary to support learning holistically during school closures. The section below outlines how districts addressed concerns around nutrition and technological device access, and explores how this varied across grade level, locale, and income.

Almost All Districts Attended to the Nutritional Needs of Students and Their Families by Providing No-Cost Meals with Few Eligibility Requirements

Students' access to healthy meals was a principal focus across nearly all of the districts sampled. Many websites prominently listed information about meal availability and pick-up distribution efforts on their home page or within new sections added to communicate COVID-19

[6] To test statistical significance, we used two-tailed t-tests, comparing: (a) high-income schools to low-income schools and (b) suburban and urban districts to districts in towns and rural areas.

[7] We also conducted analyses on how findings differed by the percentage of ELs within a district; as few differences emerged between those serving a small proportion of ELs and those serving a large proportion, these findings are not presented in the main narrative of this report but are included in Appendix C.

operational changes. These accessible and often frequent updates about nutritional support reveal how critical the redesign and implementation of these program changes were—part of a broader effort that included both federal and state support. Most notably, early in spring 2020, the United States Department of Agriculture (USDA) issued a number of waivers that affected the NSLP, allowing districts the ability to restructure their meal programs to support the rapid changes to school operations and the broader economic conditions brought on by the pandemic.[8] Analysis indicates that there was some variation in districts' meal programs during the period after school closures, specifically in terms of meal availability and accessibility. Table 3 presents results on the nutritional support provided by unified districts in our sample.

Table 3. Proportion of Districts Providing Specific Nutritional Supports in Response to the Pandemic, Across Grade Spans

	Elementary	Middle	High
Free meals provided for students	.96	.95	.96
Free meals include breakfast	.87	.86	.87
Who qualifies for free meals?			
Must be a student enrolled in the district and on free/reduced-price lunch	.01	.01	.01
Any child in a student's household under 19	.38	.38	.38
How are meals distributed?			
Meals can be picked up at any designated site/school	.83	.83	.83
Student must be present at pick-up	.40	.40	.40

Note. Analysis includes all 168 unified school districts in our sample.

In terms of the meals provided to families, about 95 percent of all sampled districts offered free lunch according to information posted on districts' websites.[9] While lunch was often prioritized across districts, some districts were also able to offer additional meals. According to website information, free breakfast was available in about 87 percent of districts, while 10 districts offered dinner free of cost to students and families. Low-income districts were 10 percentage points more likely to offer free breakfast than their more affluent district counterparts; districts located in cities and suburbs were 12 percentage points more likely to offer free breakfast than were town or rural districts, on average. Tables presenting the nutritional support for unified school districts from varying locales and serving different proportions of socioeconomically disadvantaged students are available in the appendices.

[8] For more information on waivers for the NSLP, see U.S. Department of Agriculture Food and Nutrition Service (n.d.).
[9] In the remaining five percent of districts, students may be receiving free meals as well, but information was not present on their website. In at least one instance, we noted a small district that did not provide meals directly but rather worked with a larger neighboring district to ensure all students in the community were fed.

Additionally, the NSLP waivers included flexibility in the eligibility requirements for FRPM; how districts interpreted and responded to these waivers differed across the districts we sampled. About 38 percent of districts allowed all children within a household who were under 19 years of age to pick up free meals, even if a child was not enrolled in a district school or program. This was more prevalent in low-income districts as well as those in towns and rural areas, which were about 5 percentage points more likely to offer meals to all children under 19 years of age than were more affluent districts or those in urban and suburban areas. However, less nutritional support was provided to those 19 years of age and older, as websites in only two districts in our sample indicated that meals were also offered to adults. Additionally, few qualifications were required for students to receive free meals; in fact, in only about 1 percent of all districts sampled did students need to be enrolled within a district and an eligible recipient of FRPM under the standard NSLP eligibility requirements to qualify.

Due to health and safety concerns, districts distributed meals in several ways. Many organized walk-up or drive-up locations for meal pick-up, typically at school sites or more centralized locations. For about 83 percent of sampled districts, students and families were able to pick up meals at any site where meals were distributed—rather than strictly at the school of enrollment—easing the strains associated with travel for households. Relatedly, one district included meal distribution at bus stops, potentially increasing access for families that may have been unable to travel outside their neighborhoods. However, for almost 40 percent of districts, websites indicated that students needed to be present in order to pick up meals. This was more often a requirement in districts located in cities and suburbs, which were 20 percentage points more likely to require students' presence for pick-up than were town and rural districts within our sample.

Implications. In the midst of the challenges presented by COVID-19 and the move towards remote instruction, districts worked to ensure that basic nutritional needs were met for students and their families. The NSLP remains a critical infrastructure for supporting children living in poverty. The fact that districts were able to quickly outline policies to ensure access to nutrition indicates, in part, a deep-seated recognition of the role schools play in meeting students' most basic needs and reflects the strength of the coordination across sectors. As remote instruction continues, and as the economic implications of the pandemic affect so many, maintaining—if not expanding—these programs remains essential.

Most Districts Supported Students During Remote Instruction by Increasing Access to Technological Devices and Internet Connectivity

There were substantial efforts made across districts to support students in connecting to their classes remotely, including increased access to technological devices and internet connectivity. In terms of devices, 70 percent of districts sampled reported plans to provide Chromebooks to students in all grade levels. Additionally, about 12 percent of districts provided iPads, with students in kindergarten to Grade 5 receiving iPads at a slightly higher rate (13.7 percent) than those in middle (11.9 percent) and high (11.3 percent) school grades. Importantly, however,

these figures are likely an underestimate of districts' provision of devices to students as they do not include devices provided to students prior to the pandemic or since this data collection. Alternatively, some districts had to limit the number of devices a family could receive given both supply and budgetary constraints. In these cases, devices were distributed based on student need, which was determined in a variety of ways, including surveys and requests from families. Table 4 presents results from our analyses of the technological support provided by unified districts within our sample.

Table 4. Proportion of Districts Providing Specific Technological Supports in Response to the Pandemic, Across Grade Spans

	Elementary	Middle	High
Chromebooks provided to students	.68	.70	.71
iPads provided to students	.14	.12	.11
Free internet available	.39	.39	.39
Family support for learning and using technology	.64	.64	.64

Note. Analysis includes all 168 unified school districts in our sample.

While device access was relatively equal across low-income and high-income districts, stark differences emerged when locale was considered. For example, students enrolled in city and suburban districts in all grades within our sample were nearly 19 percentage points more likely to receive a Chromebook and over 9 percentage points more likely to receive an iPad than were those in town and rural districts. While public websites indicated students in only about 7 percent of sampled town and rural districts received iPads, the majority of students were in kindergarten to Grade 5 (8.5 percent). Tables presenting the technological support for unified school districts from varying locales and serving different proportions of socioeconomically disadvantaged students are available in the appendices.

In addition to offering devices, districts also entered into or expanded partnerships with internet service providers, such as Comcast and Verizon, to bring reliable internet access to students in need. These partnerships included offering discounts, subsidizing the cost of internet access, creating hubs for Wi-Fi access—which were often set up at schools or community centers—or a combination of these options. Over one third of all sampled districts indicated they had partnered with providers to increase students' in-home connectivity by offering free internet services. In one district, school buses affixed with routers and modems became mobile hotspots, parking in rural areas to support students' connectivity. Data from district websites indicate that differences are greater when locale rather than student demographics is considered; low-income districts in our sample were only 3.3 percentage points more likely to post information on the availability of free internet services on their websites compared to high-income districts. In contrast, districts in towns and rural areas were over 25 percentage points less likely to post information about free internet services.

While the districts within our sample were often able to provide both internet connectivity and devices to support remote instruction, for some families this may have been the first device within a household, given that access to high-speed internet or a computing device is uneven across California.[10] To aid these students and families, about 64 percent of sampled districts indicated that technical support was available to students and their families. Districts organized both walk-up services and support hotlines for devices as well as technical issues students and families might be facing with the transition to distance learning. In addition to offering support for devices, one district also provided detailed guidance on remote instruction in multiple languages, outlining how to log in to virtual classrooms as well as offering troubleshooting tips and additional resources as needed. Across our sample, districts in city and suburban areas were over 21 percentage points more likely to indicate the availability of technology assistance on their websites than were those in town and rural districts.

Implications. With instruction moving online, students need access to both the internet and a device with which to mediate that access. Therefore, efforts to close the digital divide accelerated during the shift to distance learning and continue to be a top priority. State and district efforts to prioritize students' in-home connectivity are evidenced by plans to expand broadband access across the state. More than $5 billion in one-time funding in the state budget was earmarked for school districts to strengthen plans for distance learning (California Department of Education, n.d.). Yet a wide range of allowable uses for these funds may have resulted in increased pressure on districts to use funds in other ways. Continued supply and budgetary constraints within districts may mean that some students still face technological barriers, leading to inequitable access to both instruction and information. For students who were lagging academically prior to the pandemic, technological constraints present an additional obstacle for learning, potentially affecting students' overall skill development and future outcomes. Closing the digital divide therefore needs to be an ongoing priority in longer term crisis planning, including the ongoing pandemic.

Most Districts' Websites Indicated How Instruction Was Structured, But Less Information Was Available on Pedagogical Approaches

In concert with supporting the basic needs of students following school closures, districts also contended with the need to restructure instruction, including how instruction and content would be delivered as well as how students would be evaluated. However, district websites varied in terms of the level of detail available on instruction. While some highlighted instructional changes in detail, others did not post information on instruction at all. Further still, district websites tended to be less clear about the content being taught, possibly suggesting that instruction was a school- or classroom-based effort about which it may have been more difficult to provide timely updates.

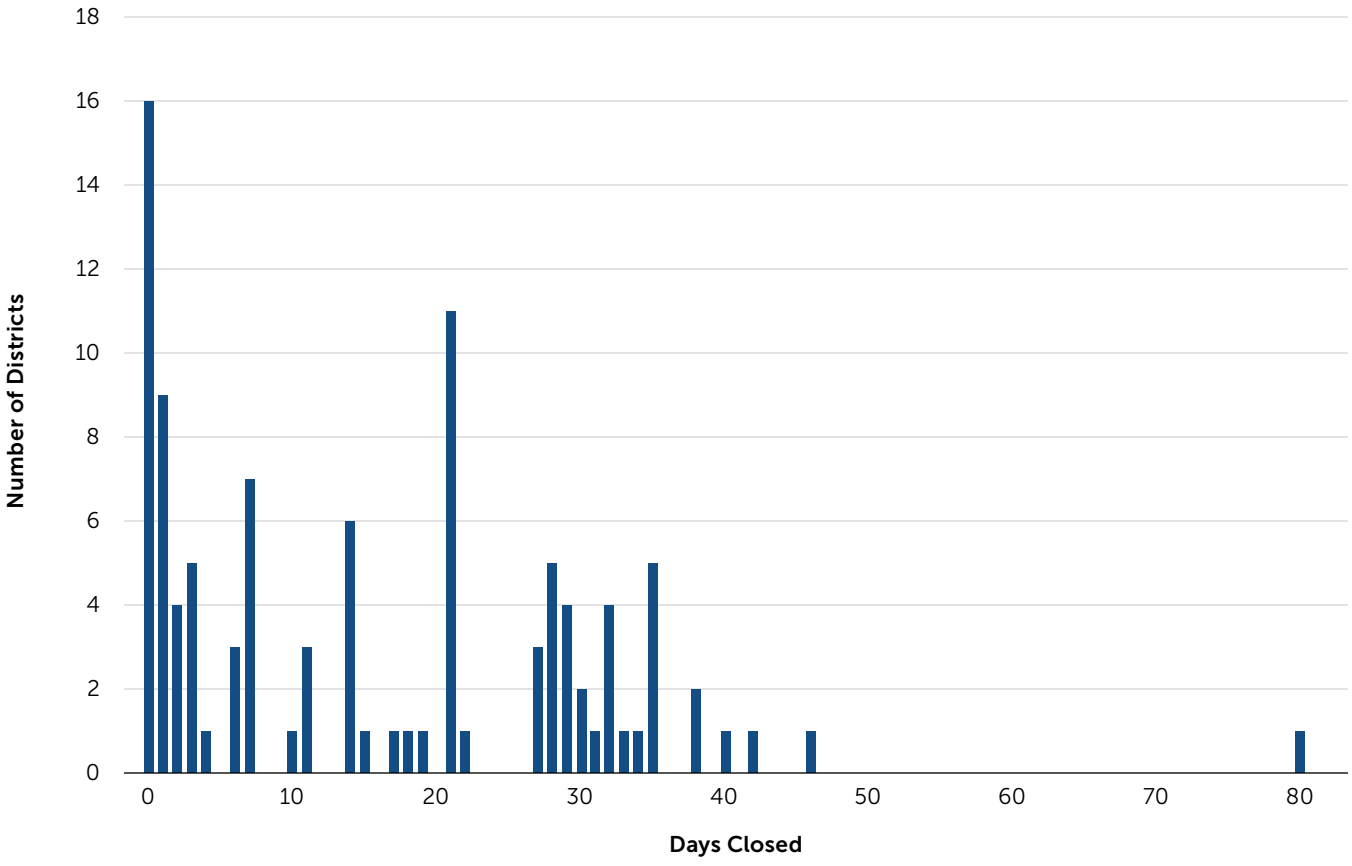
[10] The authors recognize that availability of internet services does not guarantee access, particularly given the challenges that exist around obtaining reliable, high-speed internet connections (see Johnson, 2020).

The section below outlines how districts handled the shift to remote instruction and considers this across grade level, locale, and income.

Districts Varied in the Amount of Time It Took to Transition to Remote Instruction

Given the evolving dynamics around school closures, the transition period prior to distance learning varied greatly across districts. This was due in part to the timing of school closures in mid-March, as a large portion of districts were expected to begin spring break around this time. All schools within our sample closed between March 12 and 17. Further, analysis of district websites indicates that schools remained closed for an average of 16 calendar days before the transition to remote instruction. For two districts, public websites communicated that spring break was cancelled; other districts took nearly 2 months to finalize the transition to remote instruction, one small district not making a shift apparent on their website for nearly 3 months. Figure 1 depicts the range of days that high schools were completely closed, between physical closures and the start of distance learning, for districts included in this analysis. Similar patterns were also found for elementary and middle schools.

Figure 1. Number of Calendar Days Before High Schools Transitioned to Remote Instruction in Spring 2020



In all cases, it was essential for districts to make rapid decisions during this period; however, as information is limited to what districts posted publicly, it was often difficult to determine the exact date districts began serving students formally through remote instruction. For example, some districts provided work for students to take home concurrently with school closures, implementing finalized distance learning plans at a later date. In this instance, while school buildings were closed, students continued working on assignments provided before the shutdown while faculty and staff regrouped to plan for distance learning—what one large district referred to as a "soft launch." Additionally, the transition tended to occur slightly more rapidly in town and rural districts (about 14.6 days) compared to city and suburban areas (about 17 days).

Implications. Documenting the variability of the transition time between in-person and remote instruction is critical to understanding the true breadth of learning loss students may have experienced. The loss of potential instructional time, across hours and days, may affect students' academic progress. Thus, the amount of time it took districts to implement remote instruction suggests that some students will be farther behind than others, exacerbating persistent inequities. Of course, the *amount* of instruction is not necessarily reflective of the *quality* of instruction that occurred once schools implemented remote learning.

There Was Wide Variation in Modes of Instruction, Learning Schedules, and Supports Available for Students Across Districts as well as Across Grade Levels

In our review of websites, we found that most districts indicated how instruction was structured but less information was available on pedagogical approaches. Some districts provided students with hard copy materials and learning packets while a majority made the transition to online learning. In fact, across all districts sampled, about two thirds communicated the use of synchronous instruction (class occurs in real time) on their public website, with most districts relying on either Zoom or Google virtual conferencing services to support instructional delivery. Conversely, asynchronous instruction (prerecorded classes or independent work completed offline) was less common, with evidence from district sites indicating 27 percent of sampled districts offered prerecorded classes for students.

Information was also collected on whether or not districts provided take-home instructional materials at any point during this period, with results indicating this was most common for students in primary grades. Specifically, students in kindergarten to Grade 5 were 10 percentage points more likely to use paper materials than were students in middle and high school grades. Email, phone calls, and video chats were also ways teachers delivered instruction across grade levels and districts within our sample, with more districts electing to use video chat compared to email and phone calls. Television programming was also highlighted across grade levels by 35 LEAs within our sample; while not required, it was often touted as a recommended or supplementary resource. Additionally, information from public school district websites revealed that, across grade levels, more than 85 percent of districts relied on online platforms to host class materials. Detailed results for these analyses are presented in Table 5.

Table 5. Proportion of Districts Using Specific Instructional Strategies Implemented Across Grade Spans in Response to the Pandemic

	Elementary	Middle	High
Synchronous/real-time instruction	.66	.66	.67
Asynchronous/prerecorded instruction	.27	.27	.27
Class materials hosted on online platform	.83	.85	.88
Instruction through video chat with teacher	.51	.52	.52
Instruction through phone call with teacher	.37	.38	.38
Instruction through email with teacher	.45	.45	.45
Use of take-home/paper instructional materials	.71	.61	.60
Learning schedule for students outside of virtual classes	.30	.32	.33

Note. Analysis includes all 168 unified school districts in our sample.

Noteworthy differences by district locale and socioeconomic status also emerged across the districts we sampled. While town and rural districts were about 25 percentage points less likely to offer synchronous instruction, they were about 25 percentage points more likely to offer take-home instructional materials. For districts with a high proportion of students eligible for FRPM, schools were 27 percentage points more likely to offer take-home instructional materials and 20 percentage points less likely to use synchronous online instruction compared to their counterparts. In one small town district, hardcopy materials were made available for students who did not have access to the technology needed for distance learning during the early stages after physical school closures. Additionally, urban and suburban districts often indicated that instructional materials would be hosted online for all grade levels; whereas in town and rural districts, online materials were more prevalent for high schools (84.5 percent) than for elementary (74.6 percent) or middle schools (77.5 percent). Relatedly, on average, high-income districts were about 12 percentage points more likely to use an online platform to host class materials than were low-income districts. Tables presenting instructional strategies for unified school districts from varying locales and serving different proportions of socioeconomically disadvantaged students are available in the appendices.

In addition to synchronous and asynchronous classes, more than 30 percent of districts included in our sample posted structured learning schedules for students on their websites. These schedules often included suggested activities for students during typical school hours but outside of formal class time, in an effort to more closely reflect a normal day of school operations. For example, one large urban district outlined a combination of synchronous and asynchronous activities, including physical activity, noting that they did not want students to be in front of computers all day. These schedules were equally available for elementary, middle, and high school students for those districts that made them available on their websites. While few differences

emerged across districts serving varying proportions of socioeconomically disadvantaged students, town and rural districts were about 27 percentage points less likely to publicly post information about learning schedules beyond virtual instruction than were urban and suburban districts. Moreover, while public websites provided some information on instructional minutes in these schedules, data collection on pedagogical approaches proved challenging, as little information was available on the subjects being taught (e.g., curriculum plans) or the quality of instruction provided, particularly for K–5 students. Further, expectations for students in terms of participation and work completion was also infrequently posted.

Supporting special populations. Detailed information on instructional changes for special populations, including ELs and students with disabilities, was also inconsistent and unclear across district websites, suggesting that districts likely communicated changes to these supports directly with students and families given that many services are individualized. Our data collection efforts are thus unable to speak to the supports offered to these students, what the supports may have entailed, or the amount of instructional time these students received. Yet identifying the extent to which modifications occurred is paramount to understanding not only the quality of instruction to which these students were exposed but also the overall experience for these students during this time.

Implications. There are marked implications for student learning given the cascading changes to instruction experienced across all grade levels last spring. While it is not yet known how much learning occurred or was lost, evidence here suggests that the instructional quality experienced by students may have varied dramatically. This underscores the concerns of policymakers and education leaders—even as districts have had more time to plan for ongoing distance learning and improve upon the supports offered in fall 2020. In particular, Senate Bill 98 (Education Finance, June 2020) directs all districts to provide detailed instructional plans for distance and hybrid learning models as well as the specific supports in place for special populations (e.g., ELs, students with disabilities, socioeconomically disadvantaged students). Therefore, future work documenting the programmatic plans for the 2020–21 school year may better illuminate how districts are supporting student learning, particularly for those with the most needs.

Districts Implemented Alternative Ways to Evaluate Students in Order to Preserve Prior Academic Progress

School closures also affected districts' ability to measure student progress. Statewide, the Smarter Balanced Assessments, which are used to gauge student performance in Grades 3–8 and Grade 11, were suspended via Executive Order No. 30-20 (2020), as schools faced indeterminate closures due to growing health and safety concerns. Locally, how districts were determining student progress on grade-level standards was difficult to assess based on information posted on their websites. Evidence from our analysis suggests that about 61 percent of districts, across all grade levels, utilized online homework as a primary evaluative measure, with participation and

class engagement—while less common—noted by more than 35 percent of districts. One district, however, noted that quizzes would be administered to assess student progress but could not be used for grading or placement of any kind. Table 6 presents assessment and evaluation strategies used by sampled districts.

Table 6. Proportion of Districts Using Specific Assessment and Evaluation Strategies Implemented in Response to the Pandemic, Across Grade Spans

	Elementary	Middle	High
Online homework	.58	.62	.63
Participation and engagement	.35	.36	.36
Credit/no-credit grading scale	.11	.36	.35
Cutoff date after which grade will not be lowered	.29	.36	.36

Note. Analysis includes all 168 unified school districts in our sample.

While information about how grade-level progress would be determined was less clear on districts' websites, communication about grading policies was widely shared and reflected a desire to preserve students' prior academic performance. In fact, over one third of the districts included in our sample adopted "hold harmless" grading policies for middle and high school grades. However, the details of these policies varied; analysis of district websites indicated that 15 LEAs introduced grading policies wherein a student could not fail a class, while others altered grading scales by lowering the percent cutoffs for letter grades. In one Central Valley district, grading policies were revised with the primary goal of doing no harm, allowing students the opportunity to raise their grades, retain credits, and, in individual cases, bypass graduation requirements. Some districts also identified cutoff dates on their websites, noting days after which students' grades could not be lowered. While about 35 percent of districts indicated the use of such a policy for middle and high schools, a little more than 29 percent also utilized cutoff dates for students in elementary grades. City and suburban districts within our sample were over 24 percentage points more likely to implement cutoff dates as a way to honor students' prior progress compared to rural districts.

In addition to hold harmless policies, grading scales were also altered to credit/no-credit or pass/fail in some districts to limit the impact of school closures and distance learning on grade point averages, including A–G courses, which are used to determine eligibility for the University of California (UC) or California State University (CSU) systems. Across all districts included in our sample, evidence from public websites reveals that about 35 percent of middle and high schools moved towards credit/no-credit grading scales. This was particularly evident when considering income levels and locale of districts. Notably, a credit/no-credit option for courses was over 16 percentage points more likely to be found in middle and high schools in high-income districts and over 23 percentage points more likely to be implemented in districts located in cities and

suburbs. In contrast, for elementary grades, one district focused evaluative measures on teachers' comments and feedback to parents in lieu of specific grades. Tables of the grading policies employed by unified school districts from varying locales and serving different proportions of socioeconomically disadvantaged students are available in the appendices.

Implications. Without standardized measures of student performance, it is difficult for educators and parents to gauge students' progress towards grade-level standards and the degree to which students, particularly those who are the most vulnerable, are faring in terms of academic skill development. As instruction and assessment go hand in hand, it will be critical to measure students' learning when they transition back to the traditional classroom, as there may be a need to provide compensatory instruction and supports. Moreover, students' groundwork for postsecondary access and success has undoubtedly been compromised due to the potentially uneven preparation and development of their skills during this critical educational transition; therefore, stakeholders in secondary and postsecondary segments as well as researchers will be contending with this phenomenon long into the future.

Some Districts Made Plans to Track Attendance, But Plans for Reengaging Students Who Did Not Participate in Remote Learning Were Unclear

Across districts' public websites, we found evidence that more than 41 percent of districts sampled had plans to track attendance, with almost as many indicating an intent to check on students with low or zero attendance rates; however, in many cases, it was unclear how districts planned to implement these polices with students and families in the remote instruction environment. This may be due, in part, to Senate Bill 117 (Education Finance, 2020), which waived the requirements for LEAs to collect attendance for the purposes of apportionment beginning in March 2020. In this case, attendance was likely monitored locally by schools or individual teachers, making such information outside the scope of our LEA-level data collection. For example, districts often noted that teachers would take attendance, and students were expected to be engaged and participate, but no detailed plan for reengaging absent students was outlined. Detailed results for these analyses are presented in Table 7.

Table 7. Proportion of Districts Using Specific Attendance Strategies Implemented in Response to the Pandemic, Across Grade Spans

	Elementary	Middle	High
Attendance taken	.41	.41	.42
Students with low/zero attendance rates are checked on	.39	.40	.41

Note. Analysis includes all 168 unified school districts in our sample.

Implications. Given the lack of clarity around attendance policies and their implementation, there is limited evidence on the extent to which students were, or were not, engaged in instructional activities in spring 2020 based on districts' website postings. While this analysis offers little information with regard to attendance last spring, student absenteeism is of marked concern as distance learning continues into this academic year. Absenteeism may be particularly harmful for low-income students and those in the earlier grades, as well as for ELs and those with disabilities (Santibañez & Guarino, 2020). Moreover, for students potentially living in unsafe environments, attendance monitoring is not only a way to ensure a student was present for instruction but also plays an important role when it comes to checking on the overall wellness of students. This is further evidenced by stipulations included in SB 98, which induces districts to consider the challenges in tracking attendance and class engagement as well as to specify plans for better monitoring in 2020–21.

Limitations

While the data from this analysis proffer an emerging look at how districts shifted their focus following school closures in March 2020, there are several limitations to this work. For one, although the districts included in our sample serve a large proportion of California's K–12 students, results do not reflect the plans and communications experienced by students enrolled in all school districts across the state. In addition, despite an abundance of rich data to explore and consider, not all districts published updated information on their websites, if at all. For example, districts may have favored direct communication with parents through email or may have used local media to communicate with families. Further, this analysis only reflects the actions reported by districts and not necessarily what each enacted. The work presented here thus captures how districts conceived and communicated policies for school operations following shelter-in-place orders, but not necessarily how well these changes were implemented nor their effect.

The Bottom Line

Our analysis of unified district websites across the state reveals that priorities were placed on communicating plans to meet students' basic needs first and foremost, including providing FRPM and increasing access to technology. These two areas are core to the infrastructure of remote instruction, and given the developing economic crisis the pandemic also ushered in, districts within our sample appeared to make a conscious effort to ensure published information about these supports was easily available. In contrast, the information available about learning and instruction on districts' websites was unclear and inconsistent, as details about pedagogical content, assessments, and attendance policies were not as prevalent. It is possible that the lack of information on district websites is the result of (or evidence of) school-level and classroom-driven operational changes that were communicated more directly to students and families by

their teachers and school administrators. On the other hand, limited information available about instructional activities and expectations could also suggest an absence of coherent planning and coordination to ensure student learning.

The infrastructure of technology and connectivity access and the rapidly developed instructional models for remote learning that were established in spring 2020 provided a foundation from which to build and lessons from which to learn as district and school leaders faced continued school closures in the 2020–21 academic year. Yet instructional quality and uneven access to resources remain critical concerns for policymakers and education leaders. In summer 2020, the California Legislature adopted SB 98 to partially address these concerns. SB 98 mandated that districts detail their plans—including those for ongoing distance learning and a return to schooling—as well as their strategies for: monitoring student attendance and engagement; measuring and mitigating learning loss; and improving student supports, especially for students with the most need. These plans, formally known as Learning Continuity and Attendance Plans (LCPs), are now drafted and approved; they serve both as evidence of the intensive planning undertaken by districts in these unprecedented times and as a mechanism of public accountability. However, the influence of these plans and the policies and practices implemented as a result of their preparation has yet to be determined. Moreover, the full extent of learning loss experienced by students is still largely unknown.

Therefore, while it will be some time before the full impact of school closures on student learning and well-being may be understood, we must not wait to act. First, districts should continue to provide for the basic nutritional needs of students, as student nutrition is a necessary condition for learning. Districts should also continue to work to close the digital divide, providing access to devices and internet connectivity as resources allow, since these too are crucial tools for learning in a remote environment. Educators across the state should continue to ensure attendance and engagement of all students in remote learning, with concrete plans to reengage students who have become detached from the school community during the pandemic. Along with our findings about the lack of coherent information about instruction and student supports, emerging evidence indicates that some students experienced greater learning loss than others during the pandemic (Chetty et al., 2020; Curriculum Associates, 2020; Domingue et al., 2021; Pier et al., 2021). Educators must find ways to measure and mitigate this loss. Finally, policymakers should work to provide districts and schools with the monetary resources and policy environment to ease the enormous job educators are performing in these times, while researchers should continue to interrogate instructional and engagement efforts; the supports available to students; and equitable access across student groups.

Future Work

As the pandemic continues to affect schools and students, we are extending this research with data collection efforts centered on school operations in the 2020–21 academic year with information from districts' LCPs. These plans will provide a rich source of information about what is occurring at schools during this academic year and, in turn, how this may affect students. This forthcoming analysis will focus on instruction (including structure and content); assessment of student learning loss; supports provided for students with special needs (e.g., ELs, low-income students); and attendance and engagement monitoring, along with plans for family outreach. Watch for future reports from Policy Analysis for California Education.

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Appendix A: Results for Districts by Proportion of Students Eligible for Free and Reduced-Price Meals

Table A. Proportion of Districts Reporting Implementation of Strategies and Supports in Response to the Pandemic

	Low FRPM Districts (N=66)			High FRPM Districts (N=97)		
	Elementary	Middle	High	Elementary	Middle	High
Instructional Strategies						
Synchronous/real-time instruction	0.76	0.77	0.77	0.60	0.61	0.61
Asynchronous/prerecorded instruction	0.30	0.32	0.32	0.26	0.26	0.26
Class materials hosted on online platform	0.92	0.94	0.94	0.78	0.80	0.85
Instruction through video chat with teacher	0.53	0.56	0.56	0.53	0.53	0.53
Instruction through phone call with teacher	0.39	0.41	0.41	0.36	0.37	0.37
Instruction through email with teacher	0.50	0.52	0.52	0.42	0.42	0.42
Use of take-home/paper instructional materials	0.56***	0.44***	0.44***	0.81***	0.74***	0.71***
Learning schedule for students outside of virtual classes	0.33	0.35	0.36	0.29	0.30	0.31
Assessment and Evaluation Strategies						
Online homework	0.67	0.73	0.73	0.55	0.57	0.59
Participation and engagement	0.38	0.41	0.41	0.34	0.34	0.33
Credit/no credit grading scale	0.12***	0.47***	0.46***	0.10***	0.47***	0.30***
Cut-off date after which grade will not be lowered	0.21	0.33	0.35	0.36	0.39	0.39
Attendance Strategies						
Attendance taken	0.45	0.45	0.45	0.38	0.39	0.39
Students with low/zero attendance rates are checked on	0.39	0.42	0.42	0.39	0.39	0.39
Technological Support						
Chromebooks provided to students	0.68	0.74	0.74	0.69	0.69	0.70
iPads provided to students	0.12	0.11	0.11	0.15	0.13	0.12
Free internet available	0.38	0.38	0.38	0.41	0.41	0.41
Support with learning and using technology provided to families	0.70	0.71	0.71	0.62	0.62	0.62
Nutritional Support						
Free meals provided for students	0.94	0.94	0.94	0.98	0.98	0.98
Free meals include breakfast	0.82***	0.82***	0.82***	0.92***	0.92***	0.92***
Who qualifies for free meals?						
Must be a student enrolled in the district and on free/reduced-price meals	0.03	0.03	0.03	0.00	0.00	0.00
Any child in a student's household under 19	0.35	0.35	0.35	0.40	0.40	0.40
How are meals distributed?						
Meals can be picked up at any designated site/school	0.80	0.80	0.80	0.87	0.87	0.87
Student must be present at pick-up	0.39	0.39	0.39	0.40	0.40	0.40

Note. FRPM refers to free and reduced-price meals. Low FRPM districts serve student populations where less than 55% of students are eligible for free or reduced-price meals under the National School Lunch Program. High FRPM districts are districts where 55% of students, or more, are eligible for free or reduced-price meals. Differences are significant at: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Appendix B: Results for Districts by Locale

Table B. Proportion of Districts Reporting Implementation of Strategies and Supports Provided in Response to the Pandemic

	City and Suburban Districts (N=97)			Town and Rural Districts (N=71)		
	Elementary	Middle	High	Elementary	Middle	High
Instructional Strategies						
Synchronous/real-time instruction	0.74*	0.76*	0.76*	0.54*	0.52*	0.54*
Asynchronous/prerecorded instruction	0.32	0.33	0.33	0.20	0.20	0.20
Class materials hosted on online platform	0.90**	0.90**	0.90**	0.75**	0.78**	0.85*
Instruction through video chat with teacher	0.57	0.58	0.58	0.44	0.45	0.45
Instruction through phone call with teacher	0.38	0.38	0.38	0.35	0.38	0.38
Instruction through email with teacher	0.48	0.48	0.48	0.39	0.41	0.41
Use of take-home/paper instructional materials	0.64***	0.51***	0.50***	0.80***	0.76***	0.75***
Learning schedule for students outside of virtual classes	0.41*	0.43*	0.44*	0.16*	0.16*	0.16*
Assessment and Evaluation Strategies						
Online homework	0.65	0.69	0.69	0.49	0.52	0.55
Participation and engagement	0.38	0.40	0.40	0.30	0.30	0.30
Credit/no credit grading scale	0.10	0.46	0.44	0.11	0.21	0.23
Cut-off date after which grade will not be lowered	0.36	0.47	0.48	0.20	0.20	0.20
Attendance Strategies						
Attendance taken	0.47	0.48	0.48	0.32	0.31	0.32
Students with low/zero attendance rates are checked on	0.44	0.45	0.45	0.32	0.32	0.34
Technological Support						
Chromebooks provided to students	0.76	0.78	0.77	0.56	0.58	0.62
iPads provided to students	0.18	0.15	0.15	0.08	0.07	0.06
Free internet available	0.50*	0.50*	0.50*	0.24*	0.24*	0.24*
Support with learning and using technology provided to families	0.73	0.73	0.73	0.51	0.52	0.52
Nutritional Support						
Free meals provided for students	0.98	0.98	0.98	0.93	0.92	0.93
Free meals include breakfast	0.92	0.92	0.92	0.80	0.79	0.80
Who qualifies for free meals?						
Must be a student enrolled in the district and on free/reduced-price meals	0.01	0.01	0.01	0.01	0.01	0.01
Any child in a student's household under 19	0.35**	0.35**	0.35**	0.41**	0.41**	0.41**
How are meals distributed?						
Meals can be picked up at any designated site/school	0.92	0.92	0.92	0.72	0.70	0.72
Student must be present at pick-up	0.48	0.48	0.48	0.28	0.28	0.28

Note. Differences are significant at: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Appendix C: Results for Districts by Proportion of English Learners

Table C. Proportion of Districts Reporting Implementation of Strategies and Supports Provided in Response to the Pandemic

	Low English Learner (EL) Districts (N=83)			High English Learner (EL) Districts (N=84)		
	Elementary	Middle	High	Elementary	Middle	High
Instructional Strategies						
Synchronous/real-time instruction	0.65	0.65	0.65	0.67	0.68	0.69
Asynchronous/prerecorded instruction	0.28	0.28	0.28	0.26	0.27	0.27
Class materials hosted on online platform	0.86	0.86	0.87	0.82	0.85	0.89
Instruction through video chat with teacher	0.51	0.52	0.51	0.52	0.54	0.55
Instruction through phone call with teacher	0.36	0.37	0.36	0.38	0.39	0.40
Instruction through email with teacher	0.46	0.46	0.45	0.44	0.45	0.46
Use of take-home/paper instructional materials	0.64**	0.58**	0.59**	0.79**	0.65**	0.62**
Learning schedule for students outside of virtual classes	0.25**	0.25**	0.27**	0.36**	0.38**	0.39**
Assessment and Evaluation Strategies						
Online homework	0.64	0.67	0.67	0.54	0.57	0.60
Participation and engagement	0.35	0.36	0.36	0.35	0.36	0.36
Credit/no credit grading scale	0.12	0.43	0.41	0.10	0.29	0.30
Cut-off date after which grade will not be lowered	0.27	0.34	0.35	0.32	0.38	0.38
Attendance Strategies						
Attendance taken	0.43	0.43	0.45	0.39	0.39	0.39
Students with low/zero attendance rates are checked on	0.40	0.39	0.40	0.39	0.42	0.42
Technological Support						
Chromebooks provided to students	0.64	0.69	0.69	0.73	0.71	0.74
iPads provided to students	0.12	0.11	0.11	0.15	0.13	0.12
Free internet available	0.33	0.33	0.33	0.45	0.45	0.45
Support with learning and using technology provided to families	0.63*	0.64*	0.64*	0.65*	0.65*	0.65*
Nutritional Support						
Free meals provided for students	0.93	0.92	0.93	1.00	1.00	1.00
Free meals include breakfast	0.81*	0.80*	0.81*	0.94*	0.94*	0.94*
Who qualifies for free meals?						
Must be a student enrolled in the district and on free/reduced-price meals	0.02	0.02	0.02	0.00	0.00	0.00
Any child in a student's household under 19	0.37	0.37	0.37	0.38	0.38	0.38
How are meals distributed?						
Meals can be picked up at any designated site/school	0.81	0.80	0.81	0.87	0.87	0.87
Student must be present at pick-up	0.43	0.43	0.43	0.37	0.37	0.37

Note. Low EL districts serve student populations where fewer than 16.24% of students are ELs and in high EL districts 16.24% or more students are ELs. The 16.24% cutoff is based on the median proportion of students who are ELs in our sample districts. Differences are significant at: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Author Biographies

Alexandria Hurtt is a doctoral candidate in education at UC Davis. Her research interests include college readiness and the effect of educational systems on historically underrepresented students. She holds a master's degree from UC Davis and a bachelor's degree from The College of New Jersey.

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Sherrie Reed is executive director of the California Education Lab at UC Davis. Previously, Reed worked in K–12 education for 20 years as a teacher, administrator, and charter school developer. She earned a Ph.D. from UC Davis and a master's degree and bachelor's degree from University of Northern Colorado.

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