



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

Distance Learning Strategies in California Schools

Technical Appendices

CONTENTS

Appendix A. PPIC Distance Learning Survey

Appendix B. Additional Tables and Figures

Appendix C. Survey Instruments

Niu Gao, Laura Hill, Julien Lafortune
with research support from Emmanuel Prunty

Supported with funding from the Sobrato Family Foundation

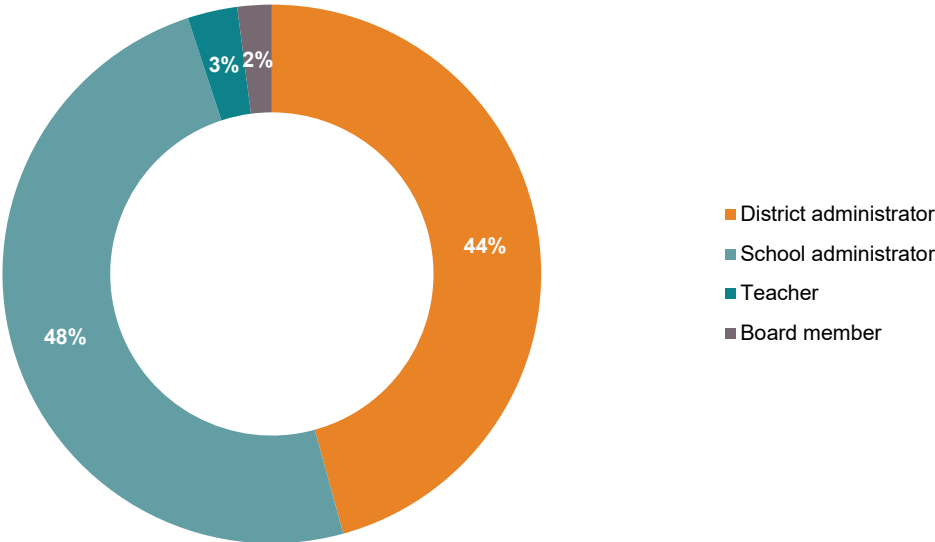
Appendix A. PPIC Distance Learning Survey

The distance learning survey was developed by researchers at PPIC. After reviewing existing literature (including RAND COVID-19 and the State of K–12 Schools survey, AIR National Survey of Public Education’s Response to COVID-19 and USC Coronavirus in America Survey) and talking to state and local policymakers, we identified a potential list of topics to be included in the survey. The draft survey was sent to multiple stakeholders including the California Department of Education (CDE), the California Association of Science Educators (CASE), the California County Superintendents Educational Services Association Curriculum and Instruction Steering Committee science subcommittee, district administrators, and the PPIC survey team, who gave us constructive feedback. The survey was launched in mid-November 2020. See Appendix C for the survey instrument.

We obtained district and school contact information from the California Department of Education (CDE), which publishes public school and district data files on a regular basis. The online survey was sent to 1,005 district superintendents and over 10,000 school principals with valid email addresses in mid-November. The email was addressed to district superintendents and school principals; however, superintendents and principals could forward the email to district/school staff. For this reason, we included in our survey a question asking the respondent’s position in the district. Several stakeholders (i.e., CDE and California County Superintendents Educational Services Association) provided invaluable assistance in disseminating the survey. Two rounds of email follow-ups were conducted in December (before the holiday break) and in January (before schools reopened).

A total of 205 districts responded to our survey. Most of the respondents were school or district administrators (Figure A1). Three quarters of rural respondents were district administrators, and about one in ten respondents in high-EL districts were teachers. A descriptive summary of survey respondents is included in Table A1.

FIGURE A1
School and district administrators make up most of the responses



SOURCE: PPIC survey of LEAs conducted between November 2020 and January 2021. Authors’ calculations using district survey responses.

The districts who responded to our survey are statistically similar to those who did not respond based on demographic characteristics. We examined characteristics of each group using data from the California

Department of Education and National Center for Education Statistics, such as the percentage of their student populations that qualify for free or reduced-price lunch, the share of students who are high-need, and the share of students who are English Learners. However, there are statistically significant differences between respondents and non-respondents by students’ racial and ethnic makeup, and we also under-sampled rural districts and oversampled urban districts. To examine response disparities, we implemented an inverse probability weight. To do this, we first ran a probit regression where we regressed the probability of responding on demographic characteristics, the type of district, enrollment, and whether the district was urban or rural. Respondents post-weighting are illustrated in Table A2. Because we are unable to control for possible selection bias on unobservable district characteristics, we ultimately decided to present unweighted results throughout the report, unless otherwise noted.

TABLE A1
Characteristics of survey respondents, raw

	Respondents	Non Respondents	P-value of difference
Total enrollment	12,985	3,525	0.0000
Asian	9%	6%	0.0110
Black	7%	3%	0.0000
Latino	52%	43%	0.0000
White	31%	39%	0.0000
Free/reduced price lunch	54%	54%	0.8780
English Learners	18%	18%	0.7880
High-need students	61%	61%	0.8720
Urban	32%	14%	0.0000
Rural	16%	38%	0.0000
District type: county office of education	13%	4%	0.0000
District type: elementary district	25%	59%	0.0000
District type: high school district	7%	8%	0.8820
District type: unified school district	53%	30%	0.0000
High-need district	62%	62%	0.8050
High-poverty district	24%	25%	0.9150
High-Black/Latino district	36%	24%	0.0010
High-English Learner district	26%	26%	0.9950
Number of districts	205	800	

SOURCES: PPIC distance learning survey, 2020. California Department of Education, 2019–20. National Center for Education Statistics: 2017-18

TABLE A2

Characteristics of survey respondents, weighted

	Respondents (Raw)	Weighted
Total enrollment	12,985	5,608
Asian	9%	6%
Black	6%	4%
Latino	51%	47%
White	32%	37%
Free/reduced price lunch	54%	54%
English Learners	18%	20%
High-need students	61%	59%
Urban	31%	18%
Rural	15%	33%
District type: county office of education	13%	6%
District type: elementary district	27%	52%
District type: high school district	8%	8%
District type: unified school district	51%	32%
High-need district	64%	57%
High-poverty district	28%	26%
High-Black/Latino district	44%	27%
High-English Learner district	30%	28%

SOURCES: PPIC distance learning survey, 2020. California Department of Education, 2019–20. National Center for Education Statistics: 2017-18

NOTES: Survey responses were weighted by the inverse probability of response, which was calculated using a probit model that controls for enrollment, student demographics, educational needs, free/reduced price lunch share, district type and geographic location.

TABLE A3

Most high poverty districts are also high Black/Latino and high English Learner districts

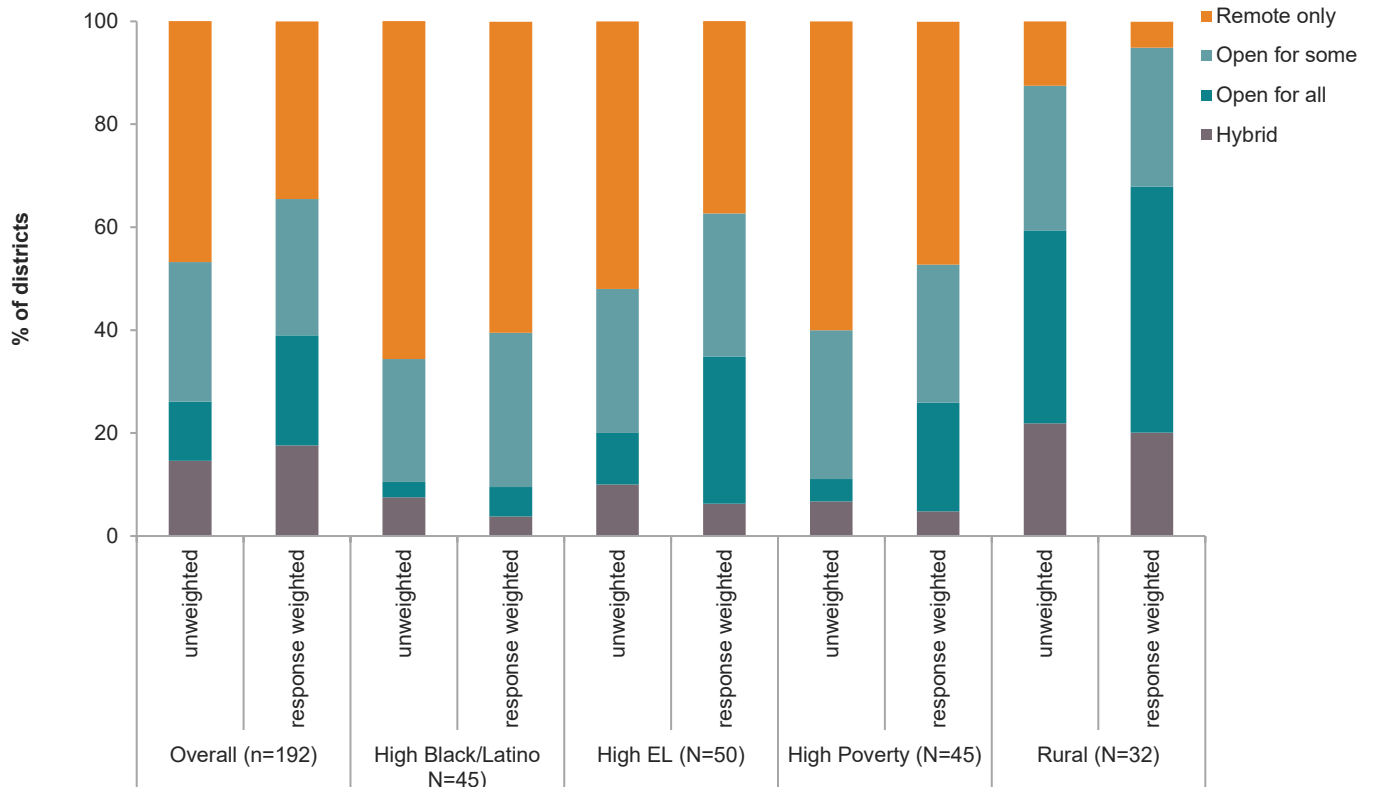
% districts that are...	High-poverty districts	High-Black/Latino districts	High-EL districts
High poverty districts	100%	46%	52%
High Black/Latino districts	85%	100%	79%
High English Learner districts	65%	52%	100%

SOURCES: PPIC distance learning survey, 2020. California Department of Education, 2019-20.

Appendix B. Additional Tables and Figures

FIGURE B1

Weighting responses decrease share of districts operating remote only



SOURCE: PPIC survey of LEAs conducted between November 2020 and January 2021. Authors' calculations using district survey responses.

NOTE: Unweighted numbers are the raw data; weighted numbers are based on inverse probability of response.

TABLE B1

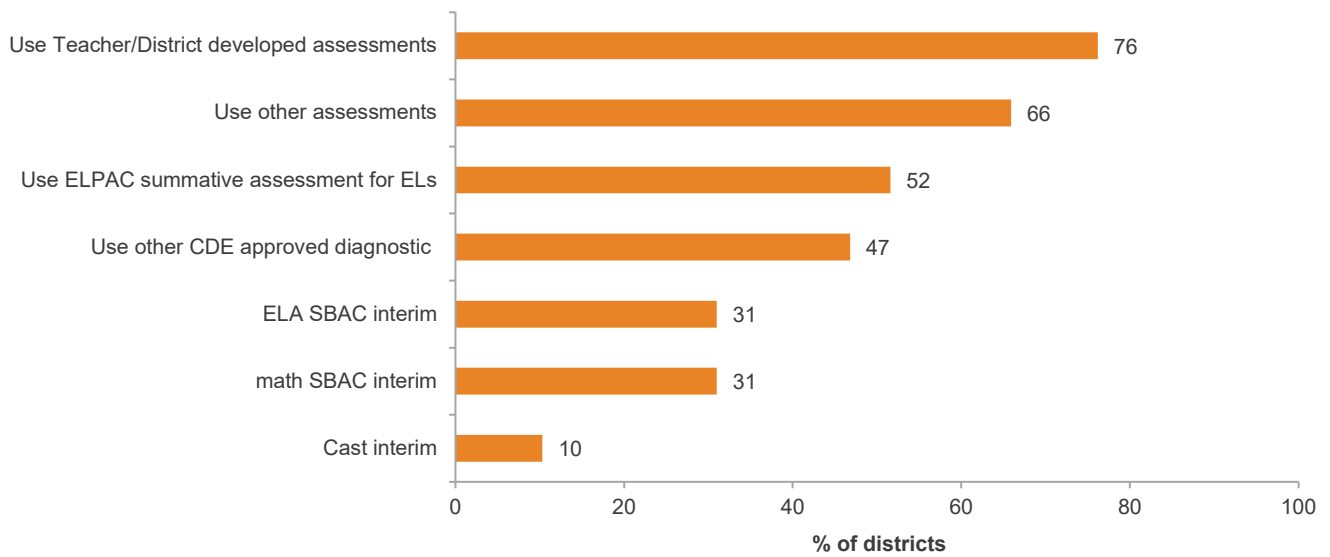
% districts reported ... became a higher priority in 2020–21 relative to spring 2020

	Overall	High Black/Latino	High EL	High Poverty	Rural
Supporting students social and emotional well-being	73	67	66	68	78
Promoting student engagement and motivation to learn	64	63	64	60	56
Ensuring students health and safety	64	69	62	62	69
Addressing achievement gaps	63	60	60	60	75
Assessing students achievements	41	312	34	34	56
Planning for future school closures or other emergencies	40	36	32	30	41
N	205	73	53	50	32

SOURCES: PPIC survey of LEAs conducted between November 2020 and January 2021. Authors' calculations using district survey responses.

FIGURE B2

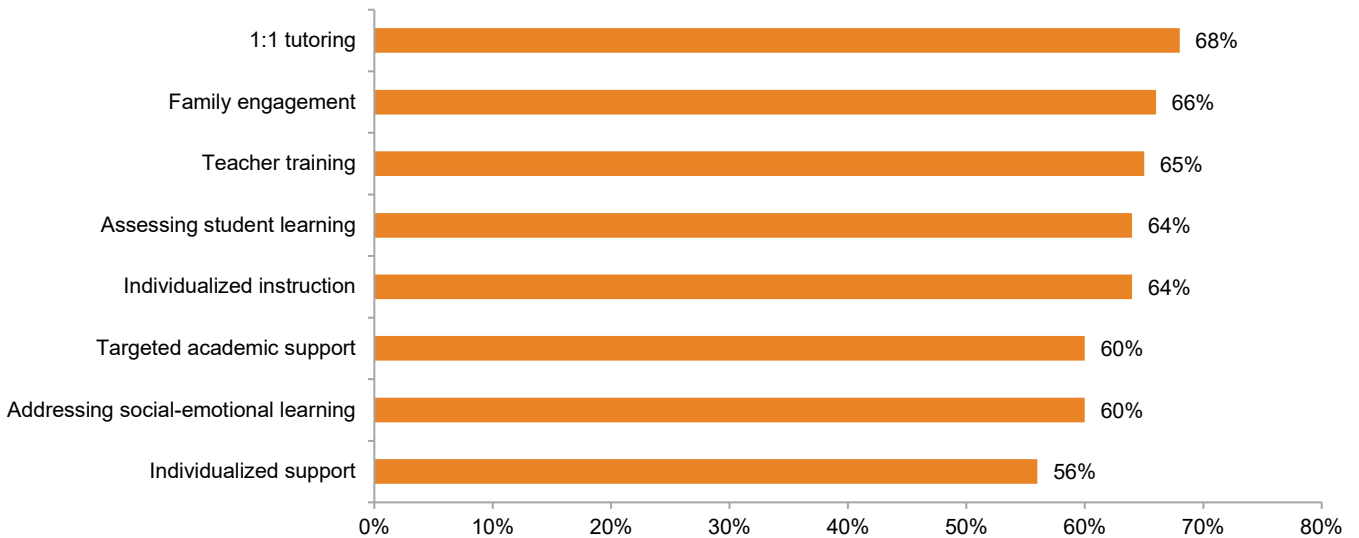
SBAC interim assessments are much less popular than teacher/district developed assessments



SOURCE: PPIC survey of LEAs conducted between November 2020 and January 2021. Authors' calculations using district survey responses.
NOTE: N=126 districts.

FIGURE B3

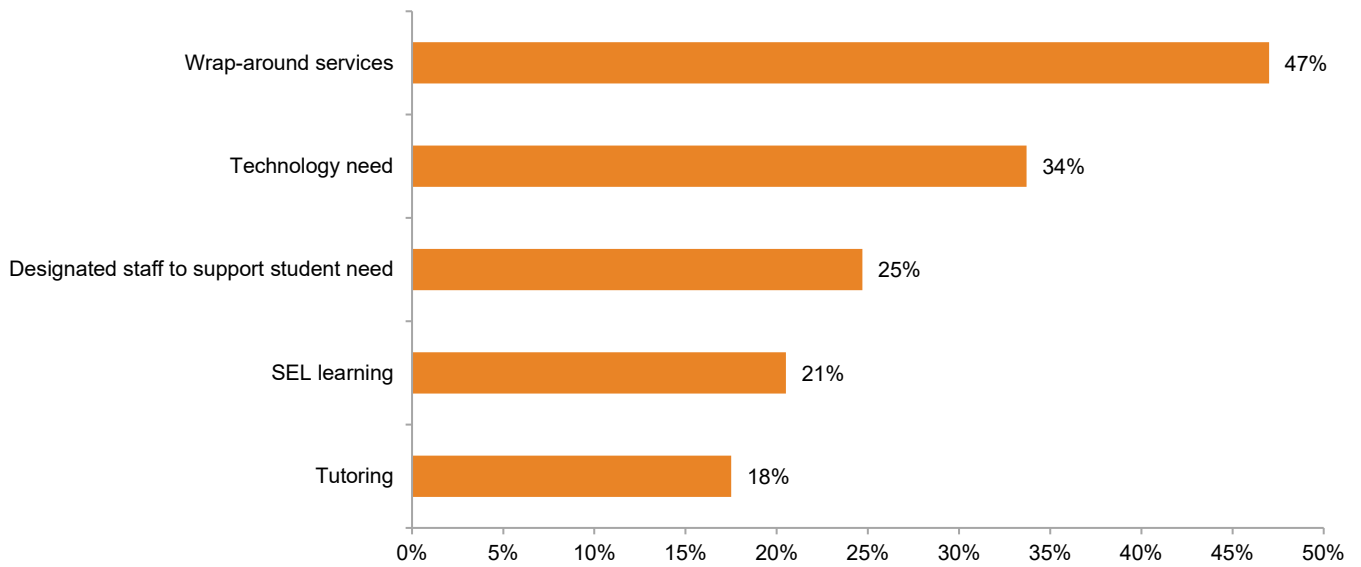
Learning loss strategies, weighted by student enrollment



SOURCE: Authors' calculations using district survey data.
NOTE: Responses weighted by district enrollment in 2019–20.

FIGURE B4

Five most commonly used programs for foster youth and students experiencing homelessness

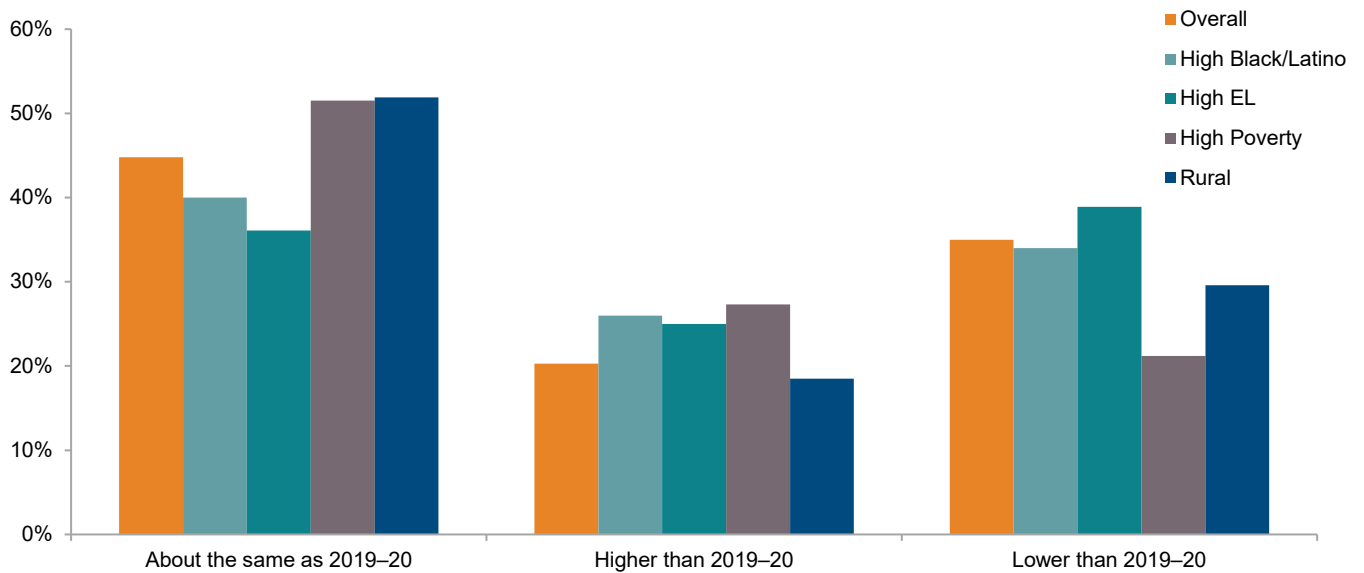


SOURCE: Authors' calculations.

NOTE: Data based on Learning Continuity Plans from districts that (1) responded to our distance learning survey and (2) posted their LCPs online. N=166.

FIGURE B5

Most districts report 2020–21 budgets that are the same or higher than in 2019–20

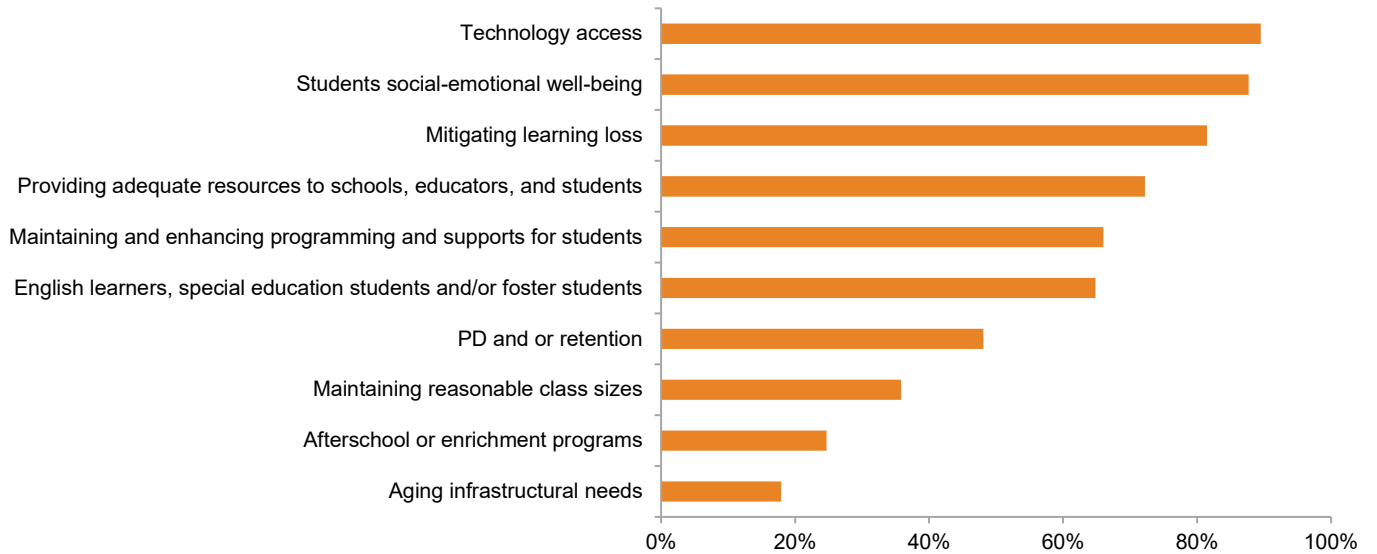


SOURCE: Authors' calculations using district survey responses.

NOTE: N=143.

FIGURE B6

Respondents report the following programs should maintain as a high priority for the 2020–21 school year

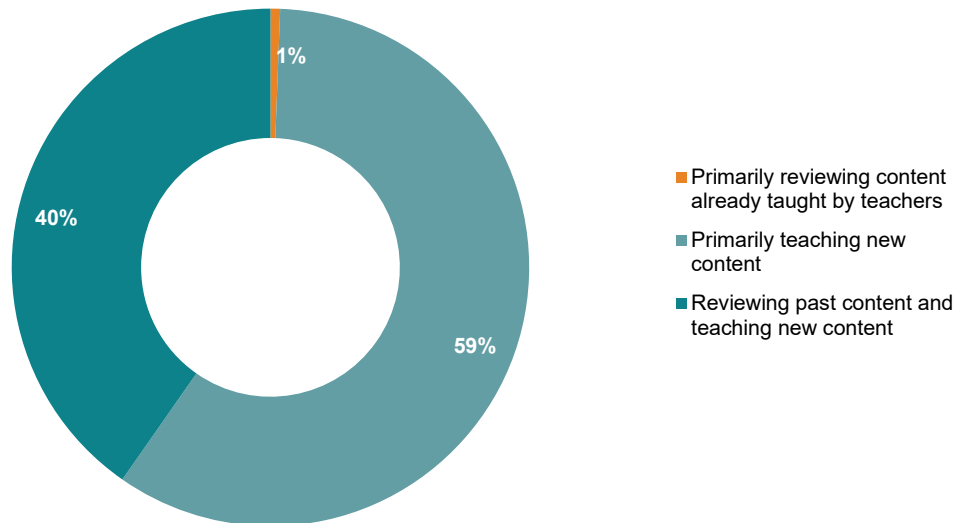


SOURCE: Question: "What current programs, services, activities, and/or initiatives do you feel the district should maintain as a high priority for the 2020–21 school year?"

NOTE: N=162 districts. Chart excludes a small number of responses marked "other."

FIGURE B7

Most districts were primarily teaching new content in fall 2020

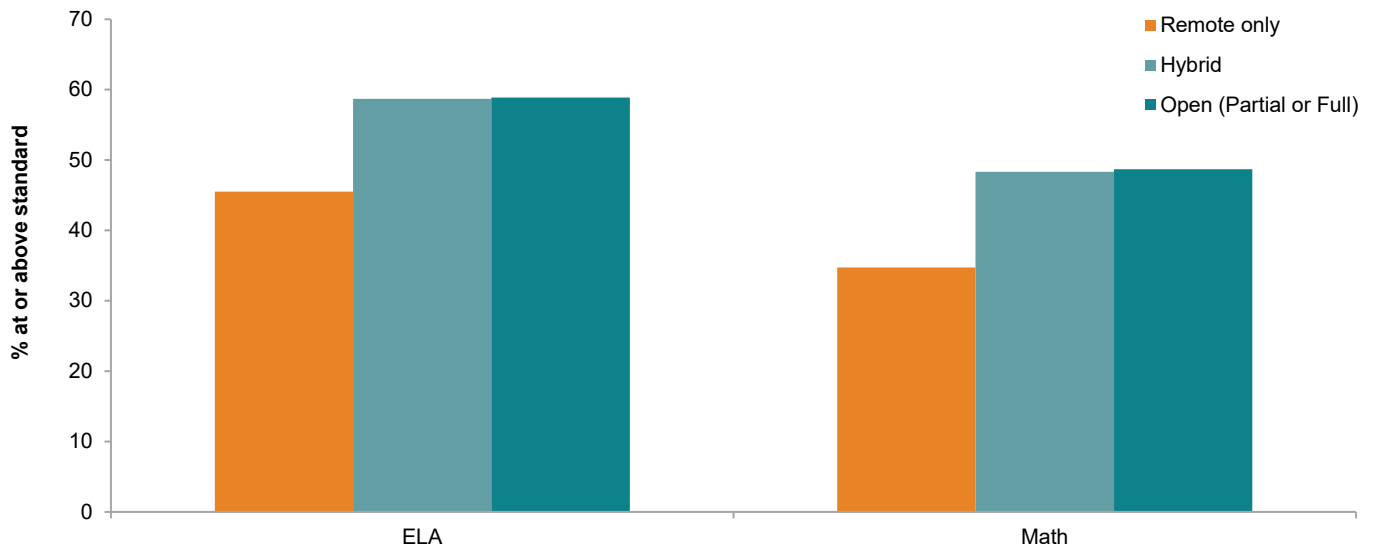


SOURCE: Authors' calculations using district survey responses

NOTE: N=159.

FIGURE B8

Districts closed for in-person instruction in 2020–21 had lower levels of student proficiency in 2019 (student weighted)



SOURCE: California Department of Education, 2019 SBAC exam results; authors' calculations.

NOTE: Figure reports the share of students meeting or exceeding grade level standards across districts of different types. Scores from grades 3–8 and 11 are included. A small number of districts with missing or censored SBAC results are excluded. Remote only: LEA is physically closed for in-person instruction for all students; open for some: LEA is open for in-person instruction for some students; hybrid: all students receive instruction through a combination of in-person and distance learning; open for all: LEA is open for in-person instruction for all students every school day. Open includes open for some and open for all. Differences between remote only and hybrid or open are statistically significant in both ELA and math.

Appendix C. Survey Instruments (without skip/display logic)

In this survey we use “district” and “LEA” interchangeably. If you are a charter school employee, please answer the following questions as they apply to your charter school.

Please select your county and local educational agency.

Please select your position (select all that apply).

District administrator (1)

School administrator (3)

School board member (7)

Teacher (5)

Other teaching staff (e.g., TOSA, instructional coach) (9)

English Learner coordinator / director of EL services (8)

Other, please specify: (6) _____

Which grades does your LEA serve? (select all that apply)

Pre K/Kindergarten (1)

1 (2)

2 (3)

3 (4)

4 (5)

5 (6)

6 (7)

7–8 (8)

9–12 (9)

Adult students (10)

Which of the following best describe your LEA’s current status?

My LEA is physically closed for in-person instruction for all students (1)

My LEA is open for in-person instruction for some students (5)

My LEA is hybrid for all students (i.e. all students come at least some days) (9)

My LEA is open for in-person instruction for all students every school day (6)

Does your LEA plan to physically re-open in the 2020–21 school year?

Yes (1)

No (4)

My LEA has not made a decision (5)

My LEA opened and had to close (7)

I don't know (6)

Display This Question:

When does your LEA plan to physically re-open? (select all that apply)

As soon as public health conditions allow (1)

December 2020 (4)

January 2021 (5)

February 2021 (6)

March 2021 (7)

April 2021 (8)

May 2021 (9)

I don't know (10)

Please select all grades currently allowed back in person (even if only some students in that grade are allowed)

Pre K/Kindergarten (1)

1 (2)

2 (3)

3 (4)

4 (5)

5 (6)

6 (7)

7–8 (8)

9–12 (9)

Adult students (10)

Which of the following students are allowed back for in-person instruction?

Special education students (1)

English learners (4)

Homeless / Foster students (5)

Children of essential workers (6)

Students with learning loss (7)

Students without internet or device access at home (8)

New arrivals / recent immigrant students (11)

Other, please specify (9) _____

I don't know (10)

To the best of your knowledge, what percentage of students are being taught in person in the district currently?

<25% (1)

25–50% (2)

50–75% (3)

75–100% (4)

I don't know (5)

Please indicate whether you expect each of the following goals to become a higher or lower priority for your LEA in 2020-21 relative to spring 2020.

	Higher priority (1)	About the same (2)	Lower priority (3)
Ensuring students' health and safety (2)			
Assessing students' achievements (5)			
Supporting students' social and emotional well-being (6)			
Promoting student engagement and motivation to learn (7)			
Addressing achievement gaps (8)			
Planning for future school closures or other emergencies (9)			

In the next few questions, we ask questions about your districts approaches to distance learning in fall 2020.

Which of the following modes describe your LEA’s distance learning in fall 2020? (select all that apply)

- Paper packets (1)
- Learning materials digitally distributed by district (4)
- Live virtual classes taught by student’s teacher (5)
- Prerecorded virtual lessons created by district (6)
- Digital learning activities/lessons/courses from an external provider (7)
- My LEA does not provide any distance learning resources (8)
- I don’t know (9)

What is the course content of distant learning in fall 2020?

- Primarily reviewing content already taught by teachers (1)
- Reviewing past content and teaching new content (4)
- Primarily teaching new content (5)
- I don’t know (6)

How does your district check-in on students in fall 2020? (select all that apply)

- Monitor student completion of work (1)
- Monitor student interactions with teachers (4)
- Monitor student log-ins to online programs used by the district (5)
- Monitor student sign-ons to learning management systems (6)
- Do not monitor data on student participation (7)
- I don't know (8)

To your best knowledge, approximately what percentage of your students do not have internet access at home?

- 1–10 percent (1)
- 11–20 percent (4)
- 21–30 percent (5)
- 31–40 percent (6)
- 41–50 percent (7)
- More than 50 percent (8)
- I don’t know (9)

To your best knowledge, approximately what percentage of your students do not have device access at home?

- 1–10 percent (1)

- 11–20 percent (4)
- 21–30 percent (5)
- 31–40 percent (6)
- 41–50 percent (7)
- More than 50 percent (8)
- I don't know (9)

In a typical day, how much time are students expected to spend on instructional activities for distance learning?

	< 3 hrs (1)	3–6 hrs (2)	> 6 hrs (3)	Don't know (4)	N/A (We do not serve those grades) (5)
TK/K (1)					
Grades 1–3 (6)					
Grades 4–5 (7)					
Grades 6–8 (8)					
Grades 9–12 (9)					

Please indicate what type of feedback or grades students receive on their work during distance learning in fall 2020. (select all that apply)

- Teachers are monitoring completion but not providing feedback (1)
- Students receive feedback on their work, but no grade (4)
- Students receive pass or fail grades (5)
- Students receive letter grades (6)
- I don't know (7)

If students are not completing the distance learning activities, to what extent is it due to:

	A small extent (1)	A moderate extent (2)	A great extent (3)	I don't know (5)
Lack of access to internet/device at home (1)				
Teacher shortage (4)				
Lack of student engagement (5)				
Lack of parental engagement (6)				
Lack of academic support (7)				
Lack of other support services (8)				

Has your district reached an agreement with the local union about minimum instructional minutes for fall 2020?

Yes (1)

No (4)

Negotiation is still underway (5)

I don't know (6)

To your best knowledge, what percentage of required instructional minutes must be live? Examples of live interaction include synchronous online instruction and two-way phone calls. One-way communication including emails, voicemails or print materials, are not live interactions.

None (live instruction not required) (1)

About 25 percent (4)

About 50 percent (5)

About 75 percent (6)

All (all instruction must be live) (7)

I don't know (8)

Please provide your opinion about each of the following statements in regard to your district learning plan in fall 2020.

	Disagree (2)	Neither agree nor disagree (4)	Agree (5)	I don't know (8)
There is a district wide effort to align math instruction with the Common Core math standards (1)				
There is a district wide effort to align ELA instruction with the Common Core ELA standards (4)				
There is a district wide effort to align science instruction with the Next Generation Science Standards (5)				
There is a district wide effort to align English language development instruction with the English language development standards (6)				

Please indicate whether each of the following statement applies to your district.

Compared to fall 2019...	Increased (1)	About the same (2)	Decreased (3)	I don't know (4)
The number of math courses being offered has... (7)				

The number of English courses being offered has... (4)

The number of science courses being offered has ... (5)

The number of English language development courses being offered has ... (6)

Has your LEA provided any the following professional development for teachers since spring 2020 school closures? (select all that apply)

Technology platforms for remote instruction (1)

Instructional methods for distance learning (9)

Instructional methods for English Learner students for distance learning (10)

Instructional methods for students with disabilities for distance learning (11)

Other (please specify) (12) _____

I don't know (13)

Aside from district communications, how have teachers and staff communicated with students' families during distance learning? (select all that apply)

Text (10)

Email (11)

Phone (12)

Video calls (e.g., Zoom, FaceTime, Skype, Google Meet) (13)

Social media (e.g., Facebook) (15)

Other (please describe) (14) _____

Not aware of teachers/staff communicating with families (9)

Does you LEA use any assessments to measure student learning in fall 2020?

Yes (1)

No (4)

I don't know (5)

Which of the following assessments does your district use to measure student learning in fall 2020? (select all that apply)

SBAC interim assessments, math (1)

SBAC interim assessments, ELA (4)

CAST interim assessments, science (5)

Other CDE-approved diagnostic assessments (e.g., Easy CBM, MAP, iReady) (6)

Teacher/District developed assessments (7)

ELPAC summative assessment for English Learners (8)

Other (please specify) (9) _____

I don't know (10)

Is your district administering any assessments to place students into 9th grade math courses?

No (1)

Yes, in-person (4)

Yes, but remotely (5)

Yes, both in-person and remotely (6)

I don't know (7)

How familiar are you with your LEA's policies and programs concerning English Learners?

Not at all familiar (1)

Slightly familiar (4)

Somewhat familiar (5)

Very familiar (6)

Does the district provide separate or additional educational resources for English Learners during distance learning?

Yes (1)

No (4)

I don't know (5)

What additional resources are being provided to English Learners? (please check all that apply)

extra time with ELD teacher/aide (1)

small group instruction (4)

formative/diagnostic assessments for ELs (5)

extra instructional materials for students (6)

extra material for families translated into home language (7)

communication (e.g., text, email, phone, zoom) with families in home language (8)
other, please describe (9)

Is your district administering 2019–2020 ELPAC summative assessment?

No (1)
Yes, in-person (4)
Yes, remotely (5)
Yes, both in-person and remotely (6)
I don't know (7)

Which English learners are taking 2019–20 ELPAC summative assessment?

All English Learners (1)
Just those English Learners otherwise eligible for reclassification (4)
Other (please specify) (5) _____
I don't know (6)

How did the district determine ELD course placement for EL students this fall?

How familiar are you with your LEA's policies and programs concerning special education students?

Not at all familiar (1)
Slightly familiar (4)
Somewhat familiar (5)
Very familiar (6)

Does the district provide separate or additional educational resources for students with disabilities during distance learning?

Yes (1)
No (4)
I don't know (5)

What sorts of additional resources are being provided to students with disabilities? (select all that apply)

Assistive technology (1)
Small group instruction (4)
Occupational therapy (5)
Physical therapy (6)
in-person (home or school) IEP meetings, evaluations, and related services (7)
communication (e.g., text, email, phone, zoom) with families (8)

Other, please describe (9) _____

Compared to spring 2020, how has your district improved in the following areas?

	Worse (1)	Unchanged (2)	Improved (4)	I don't know (5)
Providing internet and/or device access (1)				
Maintaining regular contacts with students and their families (5)				
Instruction (synchronous and asynchronous) (6)				
Monitoring student attendance (7)				
Grading student work (8)				
Assessing student learning outcomes (9)				
Providing meal services to students (10)				
Providing support services to English learners (11)				
Providing support services to students with special education needs (12)				
Providing training to teachers,				

administrators, and
support staff (13)

In your opinion, how well did your district handle distance learning during spring 2020?

- Very well (1)
- Well (4)
- Adequately (5)
- Poorly (6)
- Very poorly (7)

How familiar are you with your district's science education?

- Not at all familiar (1)
- Slightly familiar (2)
- Somewhat familiar (3)
- Very familiar (4)

To what extent is science a priority in your district's distance learning in fall 2020?

- Not a priority (1)
- Somewhat priority (2)
- Moderate priority (3)
- High priority (4)

Which of the following best describes your district's budget for science education during 2020–21?

- About the same as 2019–20 (1)
- Lower than 2019–20 (2)
- Higher than 2019–20 (3)
- I don't know (4)

Does your district plan to cut science programs or services in 2020–21?

- Yes (1)
- No (2)
- I don't know (4)

How will the new financial constraints impact your district's goals for science education?

- No significant impact (1)
- Minor impact (3)
- Moderate impact (4)

Major impact (5)

In the next few questions, we ask about your district's budget decisions.

In response to the COVID-19 pandemic, what did your district spend money on: (in excess of normal costs)

School safety (e.g., sanitation, cleaning, and disinfection of school buildings, additional janitorial staff and time, personal protection equipment) (1)

Distance learning toolkits (e.g., BrainPop, Synergy) (4)

Professional development for staff (5)

Devices and home connectivity for students and staff (6)

Meal services for students (7)

Other COVID-19 related expenditures (please specify) (8)

I don't know (9)

How were these expenditures financed? (select all that apply)

By cutting expenditures on other programs (1)

By reducing staff hours, salaries, or benefits (4)

By deferring maintenance or renovation of existing facilities (5)

By finding savings in the budget without decreasing services (e.g. efficiencies) (6)

By relying on reserves or savings (7)

By finding new revenue sources (e.g. donations) (8)

Federal and state COVID mitigation funds (9)

Using cost savings from no/reduced in-person operations (10)

Other (please specify) (11) _____

I don't know (12)

Which of the following best describes your district's budget for 2020-21?

About the same as 2019-20 (1)

Lower than 2019-20 (4)

Higher than 2019-20 (5)

I don't know (6)

What current programs, services, activities, and/or initiatives do you feel the district should maintain as a high priority for the 2020-21 school year?

Technology access (e.g., internet access and devices) (1)

After school or enrichment programs (4)

Teacher recruitment, PD and or retention (5)

Mitigating learning loss (6)

Providing adequate resources to schools, educators, and students. (7)

Maintaining and enhancing programming and supports for students (8)

Maintaining reasonable class sizes (9)

Aging infrastructural needs (10)

Programs for English learners, special education students and/or foster students (11)

Students social-emotional well-being (12)

Other, please specify (13) _____



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

The Public Policy Institute of California is dedicated to informing and improving public policy in California through independent, objective, nonpartisan research.

Public Policy Institute of California
500 Washington Street, Suite 600
San Francisco, CA 94111
T: 415.291.4400
F: 415.291.4401
PPIC.ORG

PPIC Sacramento Center
Senator Office Building
1121 L Street, Suite 801
Sacramento, CA 95814
T: 916.440.1120
F: 916.440.1121