Too Many Schools Leave Learning to Chance During the Pandemic

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We knew the sudden shift to remote learning would be hard. For the last two months CRPE followed a group of large, mostly urban school systems as they clarified their expectations for teaching students, tracking attendance, and monitoring learning. These districts are prominent in the national debate and serve nearly one of every six public school students in the country. But we knew they might not represent the experience of all school systems in the U.S.

Now, for the first time, we are releasing results from a new, nationally representative sample of 477 school systems. This new analysis includes the 81 U.S. school districts in the original database, but adds 396 districts. We apply statistical weights to provide a nationally representative sample of U.S. school districts. For the first time, then, we are able to compare remote education in districts in different types of communities and with different student characteristics.

The original cohort of districts we followed showed increasing clarity and expectations for instruction, tracking student engagement, and progress monitoring. The nationally representative sample reveals a more sobering story.

We found just one in three districts expect teachers to provide instruction, track student engagement, or monitor academic progress for all students—fewer districts than our initial study suggested. Far too many districts are leaving learning to chance during the coronavirus closures.

Figure 1. Districts That Expect Teachers to Provide Remote Instruction
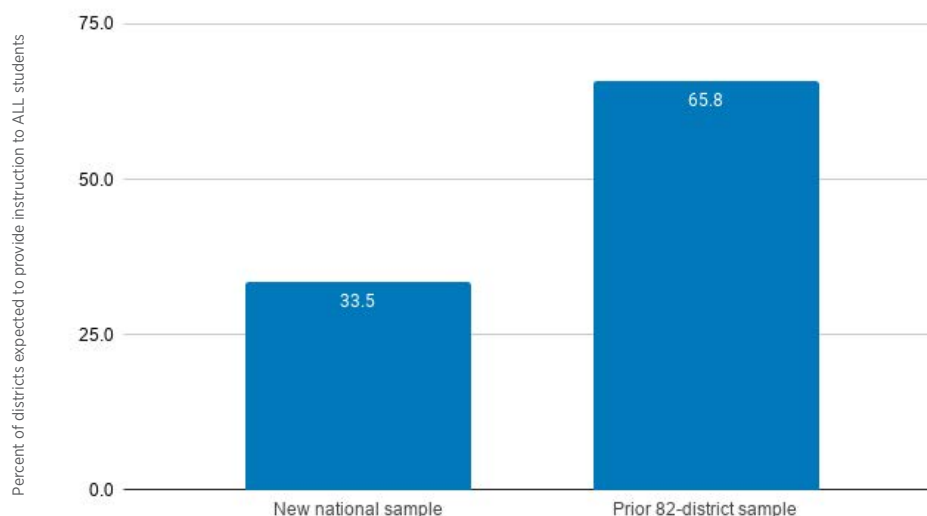
We also found significant gaps between rural districts and their urban and suburban counterparts. And school districts in affluent communities are twice as likely as their peers in more economically disadvantaged communities to expect teachers to deliver real-time lessons to groups of students.

These results are likely a function of uncertainty about technology access, but the net result is that many students in these communities were unlikely to receive consistent instruction in spring 2020.

Two-Thirds of Districts Set Low Expectations for Sustaining Instruction

Nationally, nearly all districts—85 percent—made sure their students received some form of grade- and subject-specific curriculum in packets; assignments posted in Google Classroom, Canvas, or some other platform; or guidance to complete segments of online learning software. Educators, however, understand that the *instructional core* is defined by the interaction between teachers, students, and content. The teachers' role in this interaction involves more than delivering assignments to students.

Remote instruction can take many forms: live video lessons, recorded lectures, one-on-one support over the phone, or feedback delivered through an online platform. Yet we found that only one-third of districts expect all of their teachers to continue to engage and interact with all of their students around the curriculum content.

We know that some teachers are going beyond their district's expectations to continue instruction. But lacking clear expectations to provide instruction, districts open themselves up to wide variation in what remote learning looks like from teacher to teacher, subject to subject, class to class.

Experience tells us that low expectations for instruction bode poorly for the students who faced the greatest challenges: those in low-income households, those with disabilities, those who speak a language other than English at home.

Only Half of the Districts Track Students' Engagement in Learning

Only half of districts nationally expect teachers to track their students' engagement in learning through either attendance tracking or one-on-one check-ins. Our review finds 27 percent of school districts require schools to track their students' attendance—which could include monitoring logins to online platforms or other metrics for participation used as a proxy for attendance. This data is one way for districts to monitor which students they are reaching during the pandemic, and to report this information to policymakers and the general public.

Where technology access is limited and students don't have a consistent method for demonstrating their attendance, tracking regular attendance may not be meaningful. But teachers can still be expected to make regular contact with their students by phone or text to assess engagement and problem-solve for students' varied experiences at home. We found that a slightly higher proportion (37 percent) of districts require teachers to check in one-on-one with their students on a regular basis. Looking across both approaches to monitor students' engagement, we found that just under half of districts set clear expectations for monitoring engagement.

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Figure 2. Expectations for Tracking Student Engagement
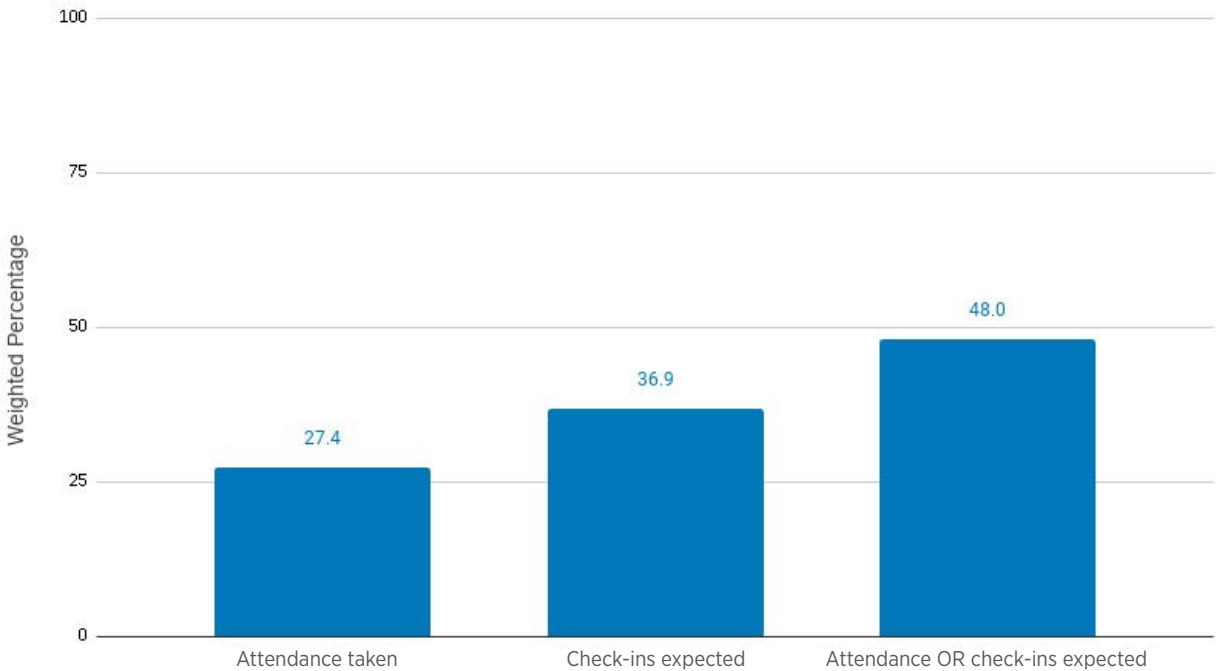
Again, many teachers are keeping in touch with their students—and we know that some are doing so even in districts that don't require them to do so. But lacking a clear expectation to sustain contact with each student, it isn't hard to imagine that teachers will stay in touch with students who are easy to contact, while students who are less connected are at greater risk of falling through the cracks.

More Than Four Districts in Ten Do Not Require Teachers to Monitor Students' Academic Progress

Tracking student progress by collecting work for review, assessing students' progress toward academic benchmarks, or grading their work is the best way to gauge if students are continuing to learn in their remote settings. It may also be our only way to get a sense of gaps in students' learning that may emerge before the fall, when districts may be able to assess where students stand.

Again, we found worrisome trends in the expectations districts set. Just 42 percent expect teachers to collect student work, grade it, and include it in final course grades for at least some students (typically those in middle and upper grades).

Figure 3. Expectations for Progress Monitoring and Grading
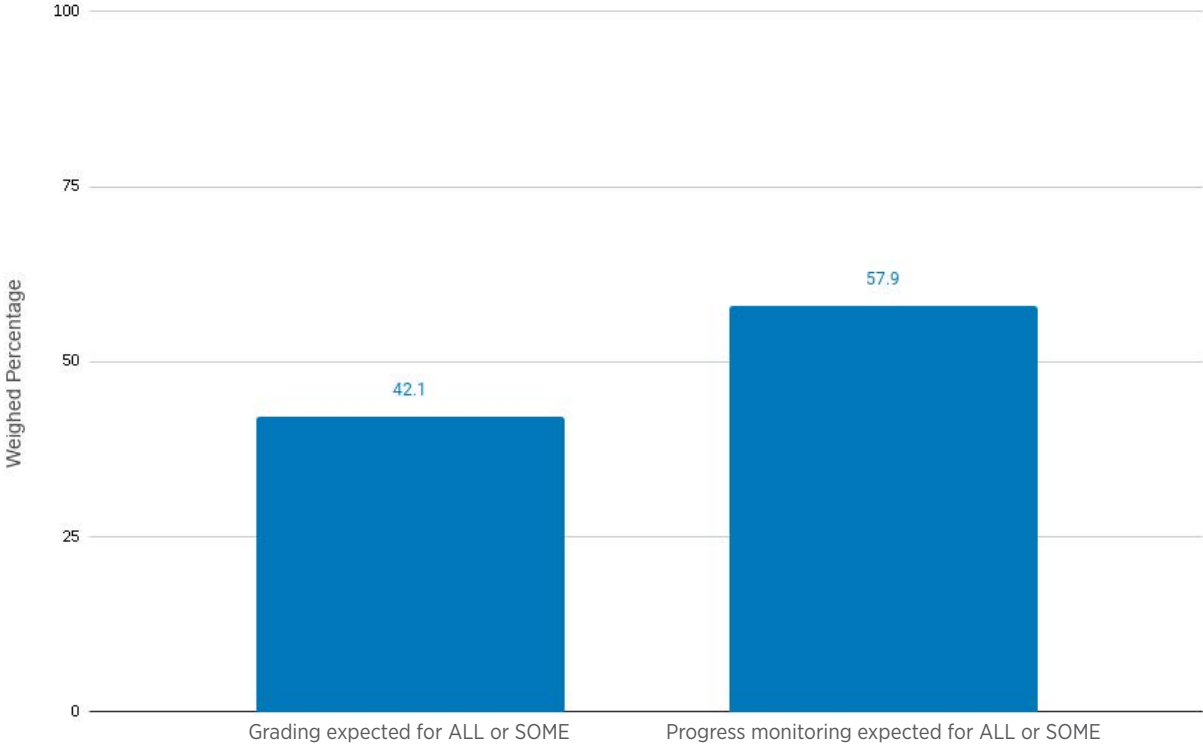
More districts (about 58 percent) expect their teachers to monitor progress or provide feedback (if not grades) for at least some of their students—typically older students. Even still, this means two out of five districts make no firm expectation for students to complete assignments and leave families on their own to keep track of learning. Lacking any progress monitoring this spring, teachers may reconvene with their students this fall with little information on what students accomplished during nearly three months of closures—or what learning gaps emerged, for which students, during months of lost learning time.

About Our Analysis

The COVID-19 response database tracks how a nationally representative group of school districts responded to the COVID-19 school closures in spring 2020. The goal of this effort is to create a national portrait of the expectations school districts set for the continuation of learning and support to students during the spring closure period. Our sample includes 477 school districts, sampled and weighed to reflect a representative cross-section of school districts across the U.S. We collected and coded publicly available information, merging the coded data with descriptive information on each district, such as percent of students receiving free or reduced-price lunch, racial demographics, and locale description from the National Center on Education Statistics Common Core of Data.

This project is a collaboration with RAND Corporation, and stems from the ongoing American School District Panel project, a project intended to build a nationally representative panel of American school districts. The project also builds on CRPE's prior COVID-19 response database, which tracked the progress of 82 school districts in rolling out remote learning plans through the COVID crisis in real time. We have included 81 of these original districts (Toronto is excluded), which were generally large and urban, in this new representative sample, but they are weighed appropriately.

Because districts' responses have changed as the closures continued, we plan to update these data this month. In a subsequent round of coding, we will re-code the original indicators on instruction during spring 2020. We will also add new codes reflecting districts plans for summer programming and contingency planning for fall 2020.

More details on coding and methodology are provided in Appendix B and C of our research brief.

The Largest Divide in Access to Instruction and Progress Monitoring May Be Between Urban and Rural School Districts

Rural districts, where internet infrastructure lags well behind urban and suburban areas, were bound to face more challenges in providing remote learning. Our analysis indeed shows gaps between the expectations for instruction, staying in touch with students, and progress monitoring. Only 27 percent of rural and small-town school districts expect teachers to provide instruction, compared with over half of urban school districts. There are similar gaps for expectations to monitor engagement: 43 percent of rural school districts expect teachers to take attendance or check-in with their students on a regular basis, compared with 65 percent of urban districts. And there is more than a 25 percentage point gap in the proportion of rural districts that require progress monitoring and a 17 percentage point gap in the proportion of rural districts that provide formal grades of some kind, compared with urban districts.

Figure 4. Gaps in Expectations for Instruction and Monitoring Progress by Region
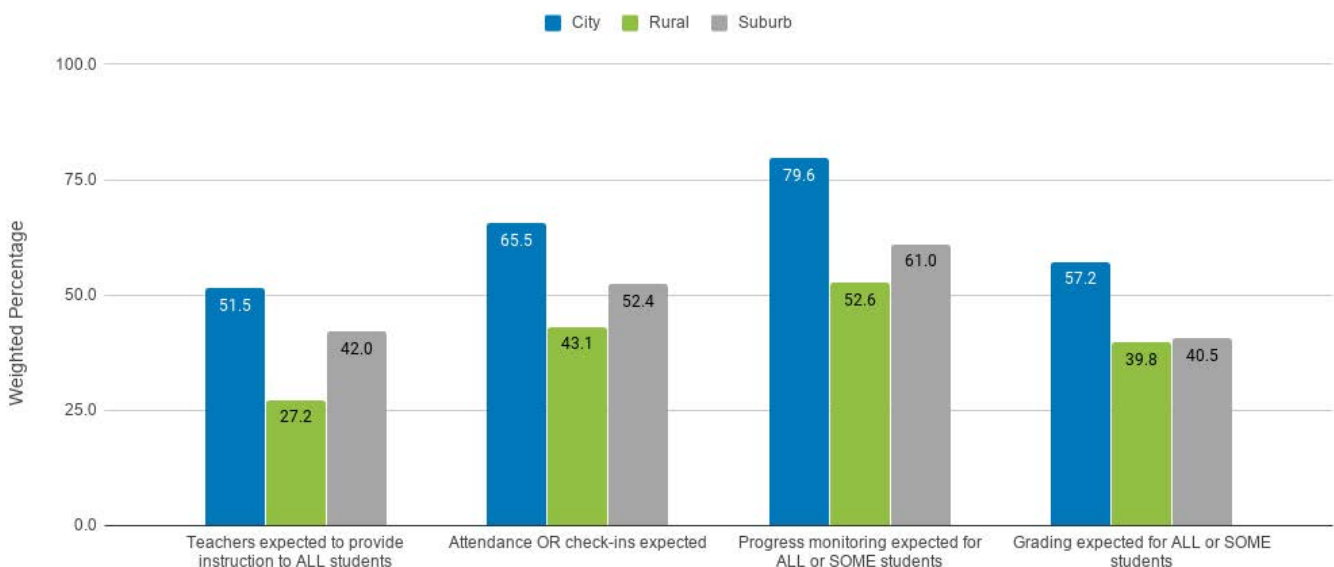
This rural-urban divide in expectations is stark—far more so than the gap in instruction between districts with high concentrations of students who qualify for free or reduced-price lunch. When we divide the sample into quartiles based on the district's concentration of economically disadvantaged students, we do not see a clear divide between the districts with the highest and lowest quartiles in terms of expectations for instruction, tracking student engagement, or progress monitoring.

Figure 5. Expectations for Instruction and Monitoring by High and Low Free and Reduced-Price Lunch Districts
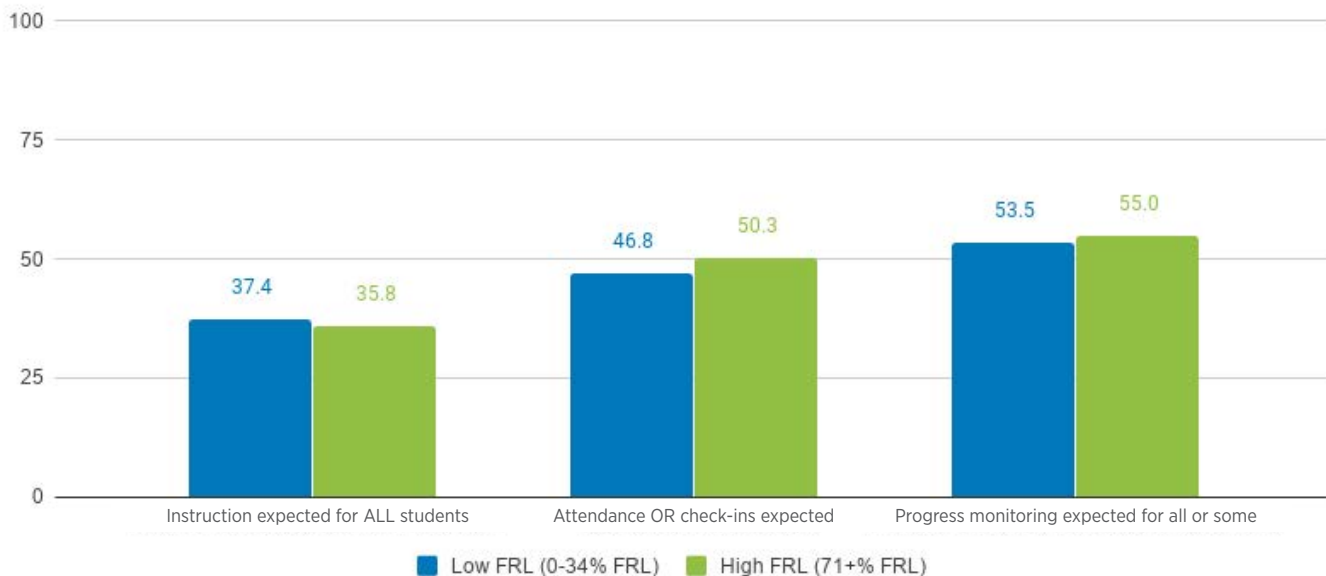
Affluent Districts Are Twice as Likely as High-Poverty Districts to Require Live Instruction

More affluent school districts are more likely to require live video instruction from teachers. While expectations around synchronous, or real-time, teaching are uncommon across the board (expected in 21.8 percent of districts), only 14.5 percent of school districts with the highest concentration of students receiving free or reduced-price lunch expect teachers to provide live instruction. The most affluent 25 percent of districts in our sample are twice as likely to expect real-time teaching.

Figure 6. Districts Expect Teachers to Provide Synchronous Instruction to At Least Some Students
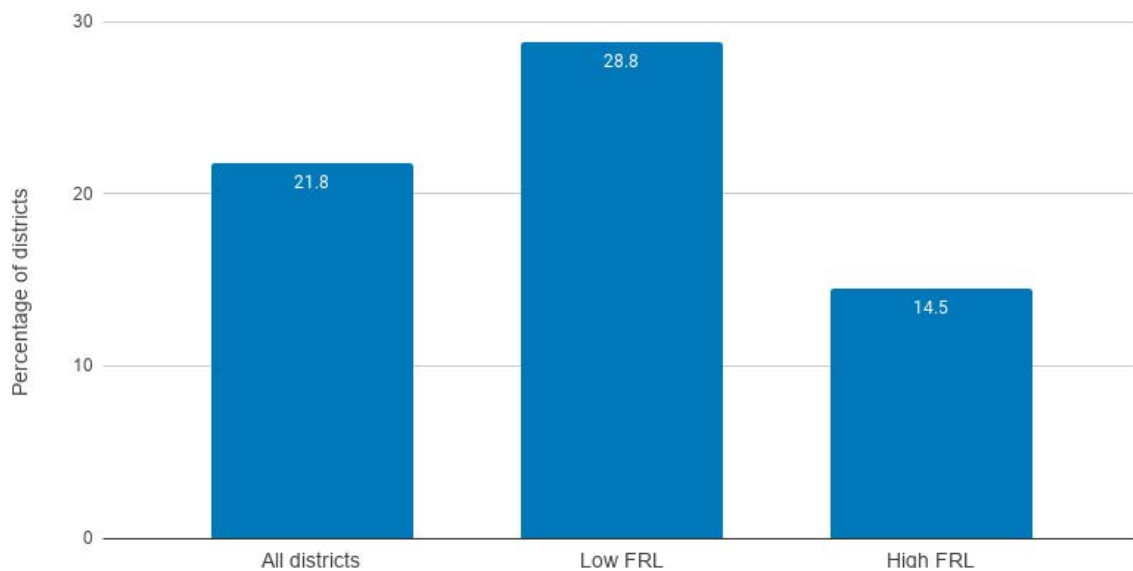
This gap is most likely due to concerns about students' access to technology in high-poverty districts but does show how concerns about access can shape the learning opportunities districts expect their teachers to provide—with the net result that higher-poverty districts are setting somewhat lower expectations that students receive live interaction with teachers and classmates.

Looking Ahead to Summer and Fall

Rolling out quality remote learning plans is something that would ordinarily take districts months, if not years, of planning. The COVID-19 crisis forced districts to accomplish this in a matter of weeks, while balancing equity and connectivity needs and providing access to basic resources. It was unlikely to be perfect.

This spring, it seems far too many school districts let perfect be the enemy of good. In the challenge to connect all students, they left the level of instruction and progress monitoring up to the discretion of schools and teachers, thus creating highly varied learning experiences for their students. Without clear expectations across the board, and therefore pressure to meet the needs of each student, many districts likely left at risk the learning experiences of students who face the greatest challenges.

This need to pick up the slack was felt by parents who, in surveys, reported worry that their child is missing instruction and felt unsure about their ability to support their child's learning at home. In one survey only 33 percent of parents reported regular access to their child's teachers. And teachers felt these low expectations, too: in another survey, over half of responding teachers were worried that their students would fall behind academically. Most report less time spent on instruction than usual, and lower engagement from their students.

Districts have an opportunity to do better by students, teachers, and parents this fall. Official guidance advises schools to prepare for continued uncertainty and some level of remote learning for fall 2020. School districts now have several months to plan ahead to align the resources, create teacher professional development, and assess community priorities to design plans for the fall that have high expectations for each student's learning and are responsive to each student's needs. CRPE will support this hard work by continuing to track districts' plans for summer and fall learning, sharing innovative strategies, and pushing for ways funders and policymakers can alleviate the burden. Despite the challenge of the COVID-19 crisis, we cannot continue to leave learning to chance for any student.

Appendix A. Full Data Tables

Sample includes 477 school districts weighted to provide nationally representative sample. Results are reported as % of group and reflect weighted frequency.

	By free and reduced-price federal lunch (FRL) quartile (see note 1)					**Comparing extremes**			**By locale (see note 2)**		
	All	Quartile 1 (0-34% FRL)	Quartile 2 (35-52% FRL)	Quartile 3 (53-70% FRL)	Quartile 4 (71+% FRL)	High FRL: FRL >=75% (15.4%)	Low FRL: FRL<25% (9.9%)	Medium FRL: 25%<=FRL<75% (74.7%)	City 12.7%	Rural 65.2 %	Suburb 22.1%
			Weighted Percentage				Weighted Percentage			Weighted Percentage	
Content and teaching											
No curriculum resources provided	1.5	1.1	1.4	0.9	2.9	4.0	2.3	0.9	0.0	1.6	2.1
General learning resources provided	10.1	10.8	6.9	14.5	8.4	6.2	10.1	10.8	7.4	9.6	12.8
Grade and subject specific resources provided	84.7	81.8	87.3	82.8	86.0	86.2	78.0	85.3	92.0	83.5	84.1
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1.0
District expects ALL teachers to engage with students around content via synchronous or asynchronous means	33.5	37.4	26.3	37.5	35.8	38.0	52.9	30.1	51.5	27.2	42.0
District expects SOME teachers to engage with students around content via synchronous or asynchronous means	13.2	17.8	18.4	7.0	8.6	9.4	9.6	14.5	10.3	14.7	10.5
District does not make an explicit expectations around teaching	49.5	38.5	50.9	53.7	53.0	49.1	27.9	52.4	37.5	52.8	46.5
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1.0
Synchronous teaching expected for ALL teachers	7.9	9.4	8.2	4.4	8.4	8.5	14.6	6.3	5.7	7.4	8.8
Synchronous teaching expected for SOME teachers	13.9	19.4	17.4	11.7	6.1	7.3	16	15.1	9.7	14.8	14.1
No expectations around synchronous teaching	74.8	64.9	70	82.1	82.8	80.6	59.8	75.6	83.9	72.6	76
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1.0
Monitoring engagement and progress											
Attendance is taken	27.4	34.6	26.4	24.1	26.1	27.4	40.6	25.7	25.6	24.2	38.0
No expectations about attendance	68.9	59.1	69.2	74.2	71.3	69.0	49.8	71.3	73.8	70.5	61.0
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1.0
Checkins are expected	36.9	25.2	37.1	41.9	42.1	43.7	25.0	37.1	59.6	34.8	30.1
No expectations about checkins	59.3	68.5	58.5	56.3	55.2	52.7	65.4	59.9	39.7	59.9	68.8
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1.0
Attendance OR checkins expected	48.0	46.8	48.9	46.1	50.3	51.8	52.4	46.7	65.5	43.1	52.4
No expectations about attendance or check-ins	48.3	46.9	46.6	52.1	47.1	44.6	38.0	50.3	33.9	51.6	46.6
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1.0
Progress monitoring for ALL students	48.0	38.8	52.3	53.7	43.5	42.1	45.7	49.6	65.2	43.2	52.4
Progress monitoring for SOME students	9.9	14.7	6.3	9.2	11.4	9.6	5.3	10.5	14.4	9.4	8.6
No progress monitoring expected	38.3	40.2	36.9	35.4	42.4	44.7	39.5	36.9	19.7	42.1	38.0
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1.0
Grading is done for ALL students	29.0	19.6	32.5	32.0	29.2	30.5	22.5	29.6	29.5	29.6	27.1
Grading is done for SOME students	13.1	14.9	11.8	15.9	9.6	9.9	10.9	14.0	27.7	10.2	13.4
No grading expected	54.4	59.1	51.2	50.4	58.5	56.0	57.0	53.4	42.2	55.0	58.5
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3.0	0.6	5.3	1.0
Technology											
Hotspots (community or home based)	30.4	25.7	33.6	30.2	30.6	34.8	20.5	30.9	48.5	28.6	25.4
No mention of hotspots provided	65.9	68	62	68	66.8	61.6	69.9	66.1	50.8	66.1	73.6
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3	0.6	5.3	1
Devices provided to all or some students ("some" typically means upper grades only or means based)	52.0	53.4	47.8	62.1	44.2	47.9	52.0	52.8	84.6	43.2	59.1
No mention of devices provided	44.3	40.3	47.8	36.1	53.2	48.5	38.4	44.2	14.8	51.5	39.9
No closure information found (see note 3)	3.7	6.3	4.4	1.8	2.6	3.6	9.6	3.0	0.6	5.3	1.0

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Appendix A. Full Data Tables (cont.)

Note 1.

Quartile 1: the 25 percent of districts with the lowest concentration of low-income students, as measured by the percentage of students who qualify for FRL, and includes districts with between zero and 34 percent of such students.

Quartile 2: the 25 percent of districts with the second-lowest concentration of low-income students, as measured by the percentage of students who qualify for FRL, and includes districts with between 35 and 52 percent of such students.

Quartile 3: the 25 percent of districts with the third-lowest concentration of low-income students, as measured by the percentage of students who qualify for FRL, and includes districts between 53 and 70 percent of such students.

Quartile 4: the 25 percent of districts with the fourth-lowest concentration of low-income students, as measured by the percentage of students who qualify for FRL, and includes districts with 71 and above percent of such students.

Note 2. City, Rural, Suburban configuration:

All NCES codes for City (11 - Large, 12 - Midsize, and 13 - Small) are collapsed to "city."

All NCES codes for Suburban (21 - Large, 22 - Midsize, 23 - Small) are collapsed to "suburb."

All NCES codes for "Town" and "Rural" (31 - Town, Fringe; 32 - Town, Distant; 33 - Town, Remote; and 41 - Rural, Fringe; 42 - Rural, Distant; and 43 - Rural, Remote) are collapsed to "rural."

Note 3. "No closure information found":

We report a district as "no closure information found" when we fail to find any web-based public information on the district or any reference to COVID-19 or coronavirus school closures on the district's website, Facebook oage, or Twitter account. We chose to include "no information" districts in all of our analyses because we feel the lack of easy-to-access public information is a salient concern amid the closures.

Appendix B. Code Definitions

Category	Indicator	Measure	Definition	Examples
Curriculum	Resources provided by district	None General Specific	**None** = District provides no resources or expectations about curriculum, lessons, or activities. **General** = District provides a menu of learning resources (not sequential lessons). This could be a general list of resources or it could be a list organized by grade-level. This is essentially the most passive option. **Specific** = District provides (or expects schools to provide) curated/directive curriculum, placing each student in a specific position in a resource and prescribing their pacing through that resource, lessons/activities/units that are associated with a grade-level and a subject area (at least ELA and mathematics), or daily or weekly physical or downloadable packets that are distinct from the previous day or week's packet. These may be created by the district, schools, teachers, or a 3rd party. Ratings are rounded up. So if any specific resources are available, the district gets a "specific" rating. The next content indicator, "Resource coverage" provides an opportunity to indicate whether the "Resources provided by the district" rating was based on providing resources to all grades (All) or if it was rounded up from only some grades (Partial).	**None** = District website says schools are on break or closed until XYZ date with no information about learning expectations. **General** = District provides a list of homepage links to Khan Academy, the local library system, kidsreads.com, etc. Or district provides paper or digital packet of optional activities (things to do) that are not part of a curriculum or sequence of learning. **Specific** = District communications/plans explain that teachers are expected to provide students with assignments during the week or district makes work packets by grade level and subject available. For a district that delegates decision-making to its schools or teachers, it would receive a "specific" rating if it communicates expectations for teachers or schools to provide specifc curriculum.
	Resource coverage	None All Partial	**None** = No grades covered. **All** = Resources for all grades (at least K-12). **Partial** = Resources for some grades (must explain what partial arrangement is in "coverage note" column).	**Partial** = If partial, explain in the "Explanation of partial coverage column". For example, you might write "For high school only."
Instruction	Instruction from teachers	None All Partial	**None** = No instruction. **All** = Instruction for all grades (at least K-12). **Partial** = Instruction for some grade bands (must explain what partial arrangement is in "Partial Explanation of Instruction" column). District expects teachers to engage with students to help them access and understand content. There may be different approaches taken, but there must be strategies in place to help students understand content and assignments. Students are not expected to rely primarily on themselves or parents to understand content or assignments. This could happen via live instruction, pre-recorded video, online platforms, one on one conversations that are tied to content, or other strategies that ensure that students receive structured guidance on concepts. For a district to be marked as a "yes" on instruction, there has to be an expectation communicated that teachers will be providing instruction or instructional resources, not just uploaded assignments or work packets on a learning management platform.	For a district that delegates decision-making to its schools or teachers, it would receive an "all" rating if it communicates expectations for teachers or schools provide instruction. Partial = If partial, explain in the Coverage Notes column. For example, you might write "For high school only." District communications/plans explain that teachers will post video lessons or provide other instructional resources on Google Classroom or other platforms along with assignments -- beyond just uploading assignments and offering office hours. District communications/plans explain that teachers will provide "real-time" instruction for students over video conference at scheduled times. District communications/plans explain that teachers will assign virtual instruction via online instructional platforms like Edgenuity, iReady, or Khan Academy. These assignments must be directed by teachers and tied to classwork or assignments, not offered as general resources. Students receive daily calls from a teacher to talk through their understanding of work assigned in packets. **Partial:** Middle and highschool students receive synchronous instruction or are directed to instruction on a platform while elementary students receive work packets only. Do not count districts where some teachers choose to provide instruction, but it is not an expectation for all as "partial." **None =** Teacher office hours or real-time video chat that isn't attached to a lesson. Teacher uploading weekly curricular assignments without accompanying instruction. Code "none" if there is not enough evidence that instruction is happening, or if it seems up to teacher discretion. Code "none" if it is an optional, student selected instructional resource, like public TV programming that is not directed by teachers or connected to curriculum.
	Synchronous teaching flag	None All Partial	**None** = No synchronous teaching. **All** = Synchronous teaching for all grades. **Partial** = Synchronous teaching for some grades (must explain what partial arrangement is in "coverage note" column). District expects some synchronous ("real time") teaching. Offering office hours does not count as synchronous teaching.	**Partial** = If partial, explain in the Coverage Notes column. Fort example, you might write "For high school only." District communications/plans explain that teachers will provide "real-time" instruction for students over video conference. For a district that delegates decision-making to its schools or teachers, even if some teachers are providing synchronous instruction it would not receive an "all" or "partial" rating unless all teachers in the district/grade level are asked to provide it.

	Synchronous student engagement flag	None All Partial	**None =** No synchronous student engagement. **All =** Synchronous student engagement for all grades. **Partial =** Synchronous student engagement for some grades District expects teacher to facilitate some student-to-student	**None =** Office hours would count as teacher check-in, but not synchronous student engagement. **Partial =** If partial, explain in the Coverage Notes column. For example, you might write "For high school only." District communications/plans explain that teachers will faciliate whole-group sessions among students in their class (e.g., video conference). District communications/plans explain that teachers will faciliate virtual advisory class. District communications/plans explain that teachers are expected to assign collaborative group projects that require students to work together virtually with or without the teacher present. For a district that delegates decision-making to its schools or teachers, even if some students are experiencing synchronous engagement it would not receive an "all" or "partial" rating unless all students in the district/grade level are expected to receive it.
	Students with disabilities	Yes No	**Yes =** District webpage specifically mentions how schools and/or the district will support students with disabilities. No = District webpage does not provide information mentioning how schools and/or the district will support students with disabilities.	This indicator captures a range of possibilities. The lowest bar: a district communicates that IEP meetings will be virtual or that specialists will be reaching out directly to families to talk about supports for student learning; others might have more elaborate resources or plans.
Progress monitoring	Feedback on student work	None All Partial	**None** = no feedback **All** = feedback for all grades (K-12) **Partial** = feedback expected for some grades (must explain what partial arrangement is in "coverage note" column). District expects teachers to provide feedback on student work, monitor the academic progress of students, or issue grades. This measure captures multiple points on this continuum. The next indicator (formal grading flag) identifies the subset of districts that require some student work completed during the shutdowns to contribute to their final course grade.	**Partial =** If partial, explain in the Coverage Notes column. For example, you might write "For high school only." District communications/plans explain that teachers should request that students submit work, provide students with feedback on their work, monitor student progress, and/or grade students work for contribution to the student's grade. Note that the lowest bar for an affirmative answer (All or Partial) is students are asked to submit some of their work to their teachers. For a district that delegates decision-making to its schools or teachers, even if some teachers are providing feedback on student work it would not receive an "all" or "partial" rating unless all teachers in the district/grade level are asked to provide it.
	Formal grading flag	None All Partial	**None** = No grading of student work. **All** = Grading of student work for all grades (e.g., ELM, MS, HS). **Partial** = Grading of student work expected for some grades (must explain what partial arrangement is in "coverage note" column). The formal grading flag identifies the subset of districts that require some student work completed during the shutdowns to contribute to their final course grade.	**Partial =** If partial, explain in the Coverage Notes column. For example, you might write "For high school only." District communications/plans explain that teachers will be recording grades on student work. Pass/Fail and Extra Credit only count as a formal grade. **None =** District communications/plans mentions that teachers may be grading or scoring assignments but that these scores won't contribute to the final course grade.
	Teacher Check In	Yes No	**Yes =** District communicates an expectation that teachers will check in with students, via phone call, email or virtual platform. **No** = No expectations communicated for teachers to check in with students. This indicator captures whether teachers are maintaining contact and connection with students outside of instruction and regular class settings.	District communicates that teachers will be calling students 1:1 to check in. District communicates that teachers will hold office hours if students or families have questions. Advisors hold advisory class. Teachers hold morning meetings or weekly wellness meetings.
Learning Time	Attendance tracking	Yes No	**Yes =** District communicates a process for tracking student attendance. **No** = District does not communicate a process for tracking student attendance.	District communicates some process for capturing student attendance. Examples could be students are asked to log in each day to a virtual platform, students are asked to download instruction or assignments each day via an app like Canvas, students are asked to submit a response to a "question of the day", teachers record attendance via phone calls home.
	Instructional minutes	Yes No	**Yes =** District recommends or requires a certain amount of instructional minutes each day or week. **No** = District does not recommend or require minimum instructional minutes.	
Technology	Device distribution	None All Partial	**None:** No devices provided, or district hasn't started providing devices yet. **All:** Devices provided for all students. **Partial:** Devices provided for some grades, or one per family, etc. (must explain what partial arrangement is in "coverage note" column). District provides technology devices (laptops, tablets) to students.	**Partial:** If partial, explain in the Coverage Notes column. For example, you might write "For high school only" or "One per family, not each student." Partial also applies if the district is in process of providing devices, but they have not been provided to all grade levels yet.
	Hotspot acccess	Community Home Both	**Community-based:** Hotspots provided to students at school or community-based sites. **Home-based:** Mobile or personalized hotspots provided for some grades or student groups. **Both**: Both provided.	**Community-based**: District has established amplified wifi outside school parking lots, or is stationing buses equipped with wifi in communities. **Home-based**: District provides phones equipped with wifi or pays for parents to establish mobile hotpots on their personal phones.

Appendix C. Methodology

1. Description of the Project

The COVID-19 response database tracks how a nationally representative group of school districts responded to the COVID-19 school closures in spring 2020. The goal of this effort is to capture a national portrait of the expectations districts set for the continuation of learning and support to students during the spring closure period. Our sample includes 477 school districts, sampled and weighed to reflect a representative cross-section of school districts across the U.S. We collected and coded publicly available information that captured the level of curricular resources and instruction, feedback, and tracking of student work, and basic resources like devices and meals provided to students during school closures. We merged the coded data with descriptive information on each district, such as percent of students receiving free or reduced-price lunch, racial demographics, and locale description from the National Center on Education Statistics Common Core of Data.

Because districts' responses have changed as the closures continued, we plan to update these data at the end of May 2020. In a subsequent round of coding, we will re-code the original indicators on instruction during spring 2020. We will also add new codes reflecting districts' plans for summer programming and contingency planning for fall 2020.

This project is a collaboration with RAND Corporation, and stems from the ongoing American School District Panel project, a project intended to build a nationally representative panel of American School Districts.

2. Sources Accessed for Information

For each school district, we coded the indicators based on publicly available information. Primary sources were the school district website and social media (district Facebook pages or Twitter, YouTube). When needed, analysts would check individual school websites or, if publicly accessible, teachers' online learning platform pages (such as Google Classroom).

In total we found no references to school closures on the district's website or social media feeds for 14 of the sampled districts. We coded these districts as "no information on closure." Some districts offered very limited information on their websites or other social media, and it was clear that these districts (or district representatives) directly communicated information on closure procedures and plans with parents via email or some other parent communication platform. As such, these accounts should be considered a conservative take on districts' responses.

We gathered descriptive information from the school districts (enrollment, racial demographics, percent of students receiving free or reduced-price lunch, locale code) from the National Center for Education Statistics. For the majority of school districts, this was based on 2016 data. A small subset of school districts were missing free or reduced-price lunch data for 2016, so we included 2015 data in the analysis.

3. Coder Training

Coders participated in several training and norming activities, including: (1) all coders reviewed a codebook outlining definitions for codes in the various fields of interest, (2) all coders reviewed information from districts, then coded a common sample of four districts, then met to discuss alignment and misalignment, (3) all inexperienced coders were paired with an experienced coder to who would check their codes against the correct coding for the four districts, and discuss any discrepancies, (4) all coders participated in multiple alignment sessions in which they discussed coding questions and further aligned on code definitions.

During the next round of coding, we will add four new coders to the team, and we will go through a similar process of test-coding four districts. We will discuss the responses and any misalignment as a team to make sure that the team is fully aligned on the new codes for summer and fall learning.

4. Data Collection Time Frame and Planned Updates

Coders collected data for the initial round of coding between April 6 and May 1, 2020. Analysts quality-checked the data and made updates for missing data during the week of May 4, 2020.

Appendix C. Code Methodology (cont.)

Our team plans to re-code the districts with the additional summer and fall codes, and quality-check the codes between May 25 and June 12, 2020.

5. Definition of Codes

Attachment A is the codebook for the first round of coding. For all indicators, codes were based only on publicly available information, and when there was no information available, were coded "no" or "negative."

Codes for summer and fall learning, which will be used in the re-code of the database, were still in development through the week of May 18. There will also likely be some changes to the original codebook on the attendance codes and the "district delegation" codes.

6. Explanation of the Sample and Sample Calibration

The Sample

The national sample includes two groups of districts.

Group 1 includes 399 districts and is a stratified random sample from a sample of 1,200 school districts. The 1,200 school districts represent the recruitment sample for the RAND-led American School District Panel project, a project intended to build a nationally representative panel of American School Districts. The sample of 399 districts is stratified by school location and includes 200 small-town and rural districts and 199 suburban and urban districts.

Group 2 includes the 82 urban districts CRPE began collecting district response data in March 2020. CRPE updated data on these districts weekly from March 28, 2020, through the period of time when CRPE completed data collection on the national sample.

Because 3 of the 82 large urban districts also appear among the 399 districts, and one is in Canada, the total national sample includes 477 U.S. school districts.

Calibration and Sample Weights

Excluding the duplicates, we combined the Group 1 and Group 2 districts and then calibrated to reflect the national population of school districts along 10 factors:

- Total enrollment in the district split into 3 groups: Small [0-800], medium [800-3000] and Large [3000+]
- Total number of schools in the district split into 3 groups: 1, [2-5], and [6+]
- Per-pupil expenditure on instructional materials
- Current expenditure dollar range code represents per-student current expenditures within ranges and are maintained on district (except Supervisory Union) and public school records
- Percentage of minority students in the district split into four groups [0-15%], [15-25%], [25-50%], and [50%+]
- Percentage of poverty level students in the district split into four groups [0-10%], [10-15%], [15-25%], and [25%+]
- Percentage of free / reduced-price lunch students in the district split into four groups [0-25%], [25-50%], [50-75%], and [75%+]
- The specific level of instruction in the school district, Elementary, Secondary or Unified
- The percentage of special education students in the district split into [0-12%], [12-17%], and [17%+]
- Bilingual Education Indicator that indicates if Bilingual Education is offered [Yes/No]