Article

Principal Perceptions of the Distance Learning Transition During the Pandemic

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Abstract

Drawing on data from the RAND American School Leader Panel 2020 COVID-19 Distance Learning Surveys, we analyze principal perceptions of school preparedness for distance learning with a specific focus on how different school types (e.g., rural, urban, and suburban) and student groups (e.g., students with mild disabilities, English learner students) were impacted by rapid school closure. These findings have important implications for how state education agencies, policymakers, and districts plan to address the growth of opportunity gaps among student groups. In addition, findings have important implications for education leadership and policy researchers seeking to design and implement studies to inform next generation policy and practice.

Keywords

educational equity, COVID-19, principals

The nation's schools experienced a rapid closure in early 2020. In late February 2020, the Centers for Disease Control and Prevention (CDC) warned schools to prepare for COVID-19, school closures, and distance

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learning (Leiberman, 2020). Soon after on February 27, Bothell High School in Washington became the first school to close (Bazzaz & Blethen, 2020). By March 11, the World Health Organization (WHO, 2020) declared COVID-19 a pandemic. To flatten the infection curve, Ohio became the first state to announce a statewide closing of schools on March 12 and more states followed in the coming days. Principal Dez-Ann Romain was the first known New York City public school staff member to die from complications related to COVID-19, a story which captured national media attention and raised educator concerns about the deadly risks of the disease (Carlisle, 2020). President Trump signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act into law on March 27, which in part provided aid to states to support public education. However, many schools were already struggling.

Most families, districts, schools, and teachers were unprepared to transition rapidly from in-person to distance learning. Preexisting inequities in technology access throughout the country as well as other pandemic-related societal disruptions (e.g., unemployment, inadequate or limited healthcare access) created additional challenges for schools seeking to provide distance education. A nationally representative teacher survey in early April 2020 indicated that teacher morale was low (Education Week Research Center, 2020). Many principals and teachers struggled to balance their professional duties with their personal lives while survey data revealed an increase in eligible teachers considering retirement (Will, 2020). By May, most teachers reported interacting with only about 50% of their students weekly or daily with a small group of students reported missing entirely (Education Week Research Center, 2020). While educators deserve credit for the significant effort, researchers were projecting within months that students would "begin the fall 2020 school year with approximately 63% to 68% of the learning gains in reading and 37% to 50% of learning gains in mathematics relative to a typical school year" (Kuhfeld et al., 2020, p. 549). Researchers also projected that school closures would impact students in the short and long-term, and that the negative impact of school closures would disproportionality impact students whose parents had lower levels of educational attainment and limited assets (Fuchs-Schundeln et al., 2020).

To better understand how the pandemic has impacted students and identify avenues to support districts, schools, and students, we believe it is critical to understand how schools initially responded to school closure and the switch to distance learning. Drawing on a nationally representative sample of over 8,000 principals from the RAND American School Leader Panel 2020 COVID-19 Distance Learning Surveys: Principals (RAND, 2020), we examined principal perceptions of initial readiness for distance learning and early practices and challenges related to school closure. We sought to answer two

primary questions: (1) To what degree did principals believe their schools were prepared to move to distance learning once schools were closed? (2) To what degree did principals believe their schools were successful in supporting the need of all students through distance education, but particularly historically marginalized student groups? By answering these questions, we hope researchers and policymakers continue to act in response to the pandemic to ensure districts, schools, students, and families have the resources they need to be successful. Principal perceptions are critical to answering such questions because they are positioned between the district and classroom and have detailed knowledge of what is happening across all classrooms and grade levels within their schools. Findings from this survey highlight a lack of overall preparedness and show how preexisting educational and social challenges were likely exacerbated by school closures, which disproportionality impacted marginalized students requiring additional supports, individualized instruction, and interventions. After presenting these findings, we provide recommendations for future research in educational leadership and policy and implications for federal, state, and local policymakers.

Background

The unprecedented rapid transition to distance education caught many schools, families, and teachers off guard. Approximately 2% of US students had experienced some online instruction prior to the pandemic (Digital Learning Collaborative, 2019). Online learning looks differently based on school level, which adds complexity to a rapid transition. Elementary students typically require parental involvement while middle school and high school students likely have greater independence in accessing synchronous or asynchronous online learning via learning management systems (LMS), email, and video. Thus, it is imperative that younger students have support at home to access distance learning opportunities. While older students may have the skills to access distance learning independently, they may lack the motivation or attention to adhere diligently to teacher expectations. Principals would carry a significant burden throughout the pandemic given their pivotal position in assessing the immediate situation and related circumstances, acting in response, and learning and adapting as the school transitioned to distance learning.

Principals have many roles and responsibilities, which include: (a) creating positive working and learning conditions, (b) supporting and monitoring the instructional program, (c) ensuring teachers regularly communicate and collaborate with families, (d) identifying areas of professional growth for

teachers, and (e) investing time and resources strategically to enhance capacity through professional development and hiring practices (Grissom et al., 2021; Hitt & Tucker, 2016; Leithwood et al., 2020). To engage in such practices effectively, principals cannot apply a one-size-fits-all approach, but rather principals need to understand the histories of their schools and communities, recognize the strengths and areas of growth of staff, and respond to contextual features of their campus community in culturally responsive ways. They often report engaging in efforts to actively interrogate educational practices to ensure historically marginalized students—such as students with disabilities, EL students, students of color, students experiencing homelessness, and students who are recent immigrants—are valued and recognized, given equitable access to resources and learning opportunities, and are ultimately successful at reaching their potential (DeMatthews, 2018; Khalifa et al., 2016). This work can be extremely labor intensive depending on school level and the current circumstances when a principal arrives on a given campus. Principal supervisors and evaluation tools often focus heavily on practices that promote increased student achievement and more equitable outcomes for students (DeMatthews et al., 2020b; Fuller et al., 2015; Honig & Rainey, 2019; Thessin & Louis, 2019), which in turn may reinforce a principal's focus on these practices.

Principals also have many other added responsibilities that are often overlooked in the literature. For example, they oversee school facilities, safety, sporting events, and non-academic activities. Crisis management is an additional responsibility for principals, but often not included in principal supervision and evaluation models. Crisis management includes prevention and response (Gainey, 2009; Grissom & Condon, 2021). Principals work with school personnel to plan and enact fire drills to ensure all individuals on campus are prepared in case of a fire. Schools may also prepare for active shooter scenarios. Other potential school-based crises include the physical destruction of the school due to a natural disaster. In response to a crisis, principals often report working with the district, school personnel, community members and organizations, and other stakeholders to respond and recover (Howat et al., 2012). To do so, they open lines of communication to receive and disseminate important information, coordinate resources, and learn and refine their efforts over time (Bishop et al., 2015; Gainey, 2009). They may also need to address the emotional needs of school personnel, students, and families (Bishop et al., 2015). Unfortunately, prior research suggests few principals or districts are adequately prepared to engage in crisis management prevention or response activities and make mistakes in their efforts to respond when unanticipated events arise (Bishop et al., 2015; Cornell & Sheras, 1998).

School closure due to COVID-19 required principals to take immediate and unprecedented action. Some of these actions reflected previously established practices, while other actions taken were new for most principals. Principals needed to physically close schools, reorganize staff to contact all students and families, ensure teachers were immediately prepared for distance learning, inform families and staff of COVID protocols, continue to distribute meals to students, conduct home visits and welfare checks, allocate devices and mobile hot spots, and monitor student academic progress and well-being. The uncertainty associated with the pandemic also required principals to develop and revise reopening plans and social distancing protocols based on updates and guidance from federal, state, and local health and educational organizations. They also had to consider their school's progress toward serving students with disabilities, EL students, and other students with unique needs.

Given the principal's position between teachers, families, and districts, they were also primary communicators and problem-solvers. To support distance learning, principals needed to understand and address the myriad of teacher, student, and family concerns related to school closures and distance learning. They needed to identify, understand, and react to unique contextual features of their school community, district, and state that impacted their readiness to transition successfully to distance learning. For example, due to persistent funding inequities throughout the U.S. (Baker et al., 2019) and a digital divide existing in both rural and urban areas within the US (Horrigan, 2015), some principals encountered greater difficulty ensuring both teachers and students/families had adequate access to internet and devices to enable consistent distance learning opportunities. Likewise, due to persistent inequities in teacher staffing, some principals had to work with less experienced and less effective teachers who may have limited rapport with families (Goldhaber et al., 2018; Lankford et al., 2002). Regardless of teacher experience or context, principals also had to provide a supportive working environment given that many teachers struggled with the transition to distance learning and added responsibilities as well as their personal sense of success and anxiety (Kraft et al., 2020; Pressley, 2021). These context specific challenges made responding to school closures more difficult in some schools relative to others, in turn disproportionality impacting students based not only on their individual needs, but also on their school and community's available resources.

Lastly, principals needed to ensure all students were receiving high-quality distance learning, but particularly for historically marginalized groups. Students experiencing poverty and living in urban or rural areas have been more likely to have limited access to internet and devices critical to distance

learning during the pandemic (Reddick et al., 2020). While the CARES Act provided resources to families in need weeks after the pandemic hit, many students likely experienced other stressors associated with their living situations, access to secure housing and adequate healthcare, and a family's ability to support or supervise distance learning while managing other family or job-related responsibilities (Hicks et al., 2018). Students with disabilities and EL students are populations that were disproportionately impacted by school closure due to the necessity of individualized instruction and supports less likely to be available or effective through distance learning.

We highlight the practices of successful principals and also some of the many contextual factors that influence leadership and student achievement because a baseline understanding of these topics are critical for understanding how a nationally representative group of principals perceived their school's readiness to respond to the COVID-19 pandemic and shift to distance learning. We also highlight these practices to suggest the limitations of our survey findings with the broader goal of provoking future research that extends beyond the findings presented in the proceeding sections.

Methods

The data used in this paper were collected from the "RAND American School Leader Panel (ASLP) 2020 COVID-19 Distance Learning Surveys: Principals" (RAND, 2020). This survey was conducted by the RAND American Educator Panels for the Bill and Melinda Gates Foundation. The RAND Corporation is a nonprofit and nonpartisan research organization. The focus of the survey was to capture how principals experienced distance learning and to identify the types of resources needed by educators during the pandemic in order to support student academic needs as well as their well-being. Two primary questions guided our study: (1) To what degree did principals believe their schools were prepared to move to distance learning? (2) To what degree did principals believe their schools were successful in supporting the needs of all students, but particularly historically marginalized student groups? We relied on descriptive statistics to answer these questions, focusing on the variables related to our primary research questions. We excluded and dropped responses with missing or no answer. We report overall averages and disaggregate results by urbanicity, school size, and student demographic. The ASLP survey includes one binary indicator of school demographics, indicating whether 50% or more of stuents are eligible for free or reduced-price meals, 50% or more of students identify as Black, or 50% or more of students identify as Latinx. Schools that do not meet any of these three criteria are classified as "low poverty and low % Black and/or Latinx,"

whereas schools meeting at least one of these criteria are classified as High Poverty or high % Black or Latinx." Participation in the federal free or reduced-price meals program provides a proxy for household income for those earning below 185% of the federal poverty line ($48,470 in household income for a family of four, given the federal poverty guideline of $26,200 (Federal Register, 2020).

ASLP is a nationally representative panel of about 8,000 K-12 public principals from an all-inclusive inventory of school leaders in the U.S. Participants were chosen via probability-based techniques. They have agreed to participate in online surveys multiple times each year and are given incentives for completed surveys. To ensure accurate representation, the survey data were weighted to national principal characteristics to factor in sampling and response variations. The sample consists of principals from different geographic areas during the 2017 to 2018 school year, 24% city, 34% suburb, 11% town, and 31% rural, and from varying of school sizes, 48% large, 52% medium, and 48% small. More than half of these principals (52%) were from majority-minority schools.

Findings

We divide our findings into four sections: (1) school preparedness prior to COVID; (2) distance learning implementation; (3) student outcomes; and (4) principal priorities to open schools. School preparedness is focused on the degree to which principals were prepared for school closure prior to the pandemic and a transition to distance education. Distance learning implementation is focused on teacher support, district support, and school-family engagement. Student outcomes consider the degree to which schools may or may not have effectively served all students, including historically marginalized student groups. Principals reported specific priorities as the new school year begun; priorities concerning students, teachers, and parents.

School Preparedness Prior to COVID

Few schools were prepared for COVID-19 and school closure. The majority of principals reported a lack of planning, preparation, and resources to deal with a crisis that led to school closure and a shift to distance learning. Specifically, principals were asked if their school did any of the following before the pandemic emerged: (1) offered fully online or blended learning courses; (2) used a learning management system (LMS); (3) provided training to teachers on distance learning; (4) provided devices to at least those students who needed them, if not all; and (5) had plans in place to deliver

instruction in an event of a school closure. Table 1 highlights principal perceptions of preparedness related to these five variables. Most principals reported they were unprepared across these areas. Only 44% of schools offered any fully online or blended learning class to students prior to the pandemic. Seventy-nine percent of all principals reported having no plan in place to shift to distance learning prior to the pandemic and most schools had not received any training on remote instruction or offered any remote courses prior to the pandemic. Almost half of the principals reported having devices already provided to at least those students who needed them. Less than half of the principals indicated that they had provided professional development to teachers regarding online instruction. These findings suggest that many schools struggled significantly in the weeks and months following initial school closures, and that principals and educators had a significant uphill battle to ensure they were able to effectively deliver remote instruction.

The school type and context shed additional insight into principal perceptions of school preparedness. Examining results by urbanicity, just 17% of urban principals had a plan in place to deliver distance learning prior to the pandemic, compared to 21% overall. At the same time, principals in suburban schools were less likely than other schools to have provided training to teachers about how to deliver instruction online and rural principals were less likely to report having used an LMS. Meanwhile, city schools (45%) had more experience with fully online or blended learning courses than suburban (35%), but less experience than in town or rural schools (both 48%). These preliminary findings highlight a lack of overall preparation and that some schools were likely more prepared than others.

Distance Learning Implementation

Resource access. School closure meant all or most students would be educated remotely from their homes, primarily through technology that required internet and a device. The survey participants were asked to estimate the percent of students with access to internet at home. Approximately 25% of principals reported that nearly all or all students had internet access. However, schools serving high proportions of low-income, Black, or Hispanic students were likely to have more students in need of internet access (see Figure 1). Survey participants were also asked if their school was able to provide digital devices, hot spots, and information to students and families once schools were closed. Generally, principals reported that schools struggled to provide at least some students with access to information, hot spots, and digital devices. Table 2 shows that schools were frequently able to provide students with information and devices but struggled with providing hotspots. Similar to school

Table 1. Principal Responses for Questions Related to Preparedeness Prior to COVID.

		Student pop.		Urbanicity			
	All	High pov/Bl/La	Low pov./Bl/La	City	Sub.	Town	Rural
Offered fully online or blended learning courses to any of your students	44%	46%	40%	45%	35%	48%	48%
Used a Learning Management System (LMS)	45%	42%	50%	49%	47%	46%	41%
Provided training to teachers about how to deliver instruction online	47%	47%	45%	49%	43%	55%	44%
Provided devices (e.g., laptops and tablets) to at least those students who needed them, if not all students	64%	61%	68%	62%	64%	69%	64%
Had plans in place to deliver instruction in the event of a prolonged school closure	21%	21%	19%	17%	20%	28%	21%
N	955	492	463	227	317	103	103

Note. High pov/Bl/La refers to schools in which at least 50% of students receive free or reduced-price meals, 50% or more of students identify as Black, or 50% of students identify as Latinx. Schools that do not meet any of these three criteria are classified as "Low pov/Bl/La." Definitions for City, Suburb, Town, and rural schools are based on those provided by the National Center for Education Statistics (2020).

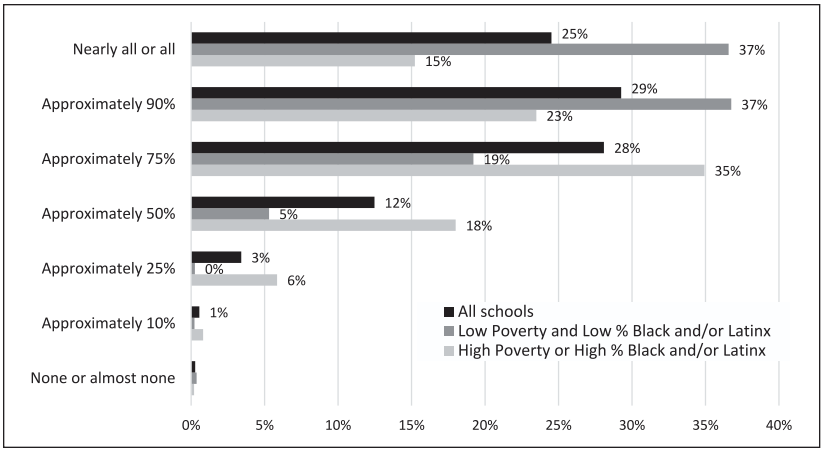

Figure 1. Principal estimates of the percent of students at their school with access to the internet at home.

Note. For this survey question, three respondents left the item blank and nine respondents stated they did not know, totalling 1.4% of all respondents based on sampling weights. The ASLP survey includes one indicator of school demographics, indicating whether 50% or more of students are eligible for free or reduced-price meals, 50% or more of students identify as Black, or 50% of students identify as Latinx. Schools that do not meet any of these three criteria are classified as "Low Poverty and Low % Black and/or Latinx." Schools that do not meet any of these conditions are classified as "Low Poverty and Low % Black and/or Latinx."

Table 2. Principal Perceptions About What Tech Access Problems Students are Facing.

		Student pop.		Urbanicity			
	All (%)	High pov./ Bl/La (%)	Low pov./ Bl/La (%)	City (%)	Sub. (%)	Town (%)	Rural (%)
Which of the following has your school provided to at least some students during the time your school building has been closed?							
Digital devices (e.g., tablets or laptops)	88	84	92	94	92	83	80
Hot spots for students to access the internet from home	50	49	52	60	52	45	41
Information about how to obtain free or discounted internet access	90	89	92	93	91	91	86

Note. See text or Table 1 footnote for student population and urbanicity definitions.

preparedness, school context impacted the degree to which principals reported successfully providing at least some students with information and devices and hot spots. Principals reported differences in access among city, rural, suburban, and town contexts. The largest difference were among schools designated as rural and town schools. In particular, rural principals reported that their schools struggled to ensure at least some students would have hot spots (41%) to access the internet from home.

Family communication. School-to-home communication is critical to supporting families and students during school closure, especially considering some families may lack access to internet and devices or be unfamiliar with how to support their child's learning. Principals were asked how often their school shared the following types of information with at least some families since the school was closed: (1) how to help children with academic instruction; (2) how to support their children's social and emotional well-being; (3) how to promote students' physical activity; (4) how to access non-instructional services such as meals or health services; and (5) how to talk with children about COVID-19. Table 3 highlights different rates in which schools were able to share information with families. Non-instructional services, such as meals and health services were a frequent focus of communication reported by principals (90%) followed by academic instruction (81%), physical activity (73%), and well-being (66%). Only 43% of the principals reported that their schools communicated with families on topics related to COVID-19.

District support. The pandemic required teachers to shift rapidly to remote instruction. Such a shift raised concerns about how historically marginalized student groups or student groups with more intensive and individualized needs would be served. Principals reported that most teachers received adequate guidance and support to address the learning needs of different student groups. Table 4 highlights that principals believed most teachers received adequate guidance and support to address the needs all students, including, those experiencing poverty (74%), EL students (62%), homeless (54%), students with mild disabilities (80%), students with severe disabilities (50%), and all others (84%). These findings suggest that many teachers received some support on how to differentiate and individualize instruction and support for all students. However, principals felt they did not support teachers in serving students with severe disabilities and students experiencing homelessness to the same extent they supported teachers with all other students.

Principals were also asked to rate their current level of need for additional support from district administrators in several key areas, including: (1) internet, devices, or other technology for students to access online learning

Table 3. Types of Information Shared With Families (% Reporting "More Than Twice," Rather Than "Not at All Yet" or "Once or Twice").

		Student pop.		Urbanicity			
	All (%)	High pov./Bl/La (%)	Low pov./Bl/La (%)	City (%)	Sub. (%)	Town (%)	Rural (%)
While your school building is closed, how often has your school shared the following types of information with at least some families? (% reporting "More than twice," rather than "Not at all yet" or "Once or twice")							
How to help their children with academic instruction	81	80	83	81	81	83	81
How to support their children's social and emotional well-being	66	61	74	72	69	64	59
How to promote students' physical activity	73	70	76	73	75	68	74
How to talk with children about COVID-19	42	38	46	46	44	44	34
How to access non-instructional services such as meals or health services	84	83	86	87	81	90	82

Note. See text or Table 1 footnote for student population and urbanicity definitions.

Table 4. Types of Support Principals Provided to Teachers in Order to Respond to the Learning Needs of Different Student Populations? (% Reporting "Yes," But Note for Later That Some Report "Not Relevant").

		Student pop.		Urbanicity			
	All (%)	High pov./Bl/La (%)	Low pov./Bl/La (%)	City (%)	Sub. (%)	Town (%)	Rural (%)
Have your teachers received adequate guidance and support to address the learning needs of each of the following groups while your school building is closed? (% reporting "Yes," but note for later that some report "Not relevant")							
Students with mild disabilities	80	78	82	75	80	88	80
Students with severe disabilities	50	48	53	40	51	55	59
English language learners	62	61	64	65	66	67	52
Students affected by poverty	74	71	77	73	68	77	79
Students experiencing homelessness	54	56	52	54	50	58	56
All other students	84	81	89	81	84	88	85

Note. See text or Table 1 footnote for student population and urbanicity definitions.

materials; (2) lifting of restrictions around the provision of learning supports (e.g., restrictions on online teacher/student interactions because of privacy concerns; (3) high-quality materials to support academic instruction while buildings are closed; (4) training to support teachers to deliver distance learning; and (5) opportunities to network and learn from other principals. The first area was dedicated to knowing the current levels of need for additional support for internet, devices, and other technology. Table 5 shows that approximately 23% of principals reported a very major need of support for additional access to internet and devices. Principals serving more students of color were more likely to report needing additional support in this area.

Approximately 60% of the principals indicated that their schools had a very major, major, or moderate need for assistance in this area. Principals felt their schools needed less support with accessing high-quality materials to support teaching and learning. However, 20% of principals still reported a very major or major need for greater access to high-quality materials. Thirty-three percent of principals reported a very major, major, or moderate need for access to hands on learning support, which included laboratories, conducting experiments, and the like. As with other survey findings, school context and demographics mattered as it related to reported areas of need. Table 5 also highlights how urban and rural schools typically had greater needs reported by their principals.

Student Outcomes

Principals were asked to estimate how achievement might differ in fall 2020 compared to fall 2019 for all students and particular subgroups. Table 6 describes how principals believed achievement might differ from fall 2019 to fall 2020. In general, they predicted that all students would be negatively impacted and have lower achievement in 2020 when compared to 2019. For example, 12% of principals felt that all students would have "much lower" levels of achievement in comparison to the prior year. Four percent of principals felt even higher achieving students would have "much lower" achievement. However, more principals perceived that particular student groups were especially vulnerable or likely to be negatively impacted by school closure. For example, when asked about EL students, principals were even more concerned in estimating the effects of the pandemic on student achievement. Thirty-six percent of the principals predicted that EL students would be underperforming in comparison to the prior academic year.

Principals also predicted that students with disabilities would have lower achievement relative to their peers (42%). The level of principal concern increased based on the level of students with disabilities also receiving free

Table 5. Types of Support Principals Say They Need From District Leaders (% Reporting "Major Need" or "Very Major Need").

		Student pop.		Urbanicity			
	All (%)	High pov./ Bl/La (%)	Low pov./ Bl/La (%)	City (%)	Sub. (%)	Town (%)	Rural (%)
Please indicate your current level of need for additional support from district leaders in each of the following areas (% reporting "Major need" or "Very major need")							
Internet, devices, or other technology for students to access online learning materials	23	32	12	20	16	27	34
Lifting of requirements regarding student attendance or instructional time	13	16	10	18	9	13	14
High-quality materials to support academic instruction while buildings are closed	20	25	14	27	16	13	21
Training to support my teachers to deliver distance learning	30	32	26	32	27	23	33
Opportunities to network and learn from other principals	13	17	9	14	13	13	13
Strategies or resources to address the loss of students' opportunities to engage in hands-on learning	33	37	27	37	31	28	33

Note. See text or Table 1 footnote for student population and urbanicity definitions.

Table 6. Support Groups Principals Think Will Be Most Affected Academically.

		Student pop.		Urbanicity			
	All (%)	High pov./ Bl/La (%)	Low pov./ Bl/La (%)	City (%)	Sub. (%)	Town (%)	Rural (%)
Please estimate how the achievement might differ in fall 2020 compared to fall 2019 for each of the following student subgroups (% reporting "Much lower than in fall 2019")							
All students	12	17	6	16	12	9	10
Low-achieving students	53	56	49	55	53	52	53
High-achieving students	4	4	3	4	4	2	4
Student from low-income families	38	41	35	40	40	38	36
Students with disabilities	42	46	36	41	42	40	41
English language learners	36	40	30	39	40	34	30

Note. See text or Table 1 footnote for student population and urbanicity definitions.

and reduced meals. Finally, principals were asked about low achieving students. Fifty-three percent of the principals agreed that low achieving students would be affected to a great extent by the pandemic. Similar to other groups, the principals reported greater concern for low-achieving students who also receive free and reduced meals. In sum, principals predicted that students with unique learning needs as well as students experiencing poverty would be disproportionality impacted by the pandemic.

Implications for Practice and Policy

The RAND American School Leader Panel 2020 COVID-19 Distance Learning Surveys provide unique insight into the perceptions of principals during early part of the pandemic. These findings help paint a picture of how well schools were prepared for distance education and how successful they were at meeting the needs of all students once schools were closed. The principals in this study had unique insight into readiness levels, schoolwide and community resources, and the degree to which their districts supported their efforts to transition to distance learning. Given the principals' broad supervisory power and pivotal position between teachers, families, and districts, they were able to provide critical insight into what happened via distance learning and what challenges might lay ahead. Much can be learned from these findings to inform practice and policy moving forward, particularly as the federal government, states, and districts enact policies to address the impact of COVID-19 on student outcomes.

The findings from the survey make clear that schools were generally ill-prepared for crisis and lack adequate planning for closure. While the COVID-19 pandemic was unprecedented, many districts and schools throughout the US are forced to close due to natural disasters, such as hurricanes and fires. The surge of school shootings and student suicide have also created significant disruptions to schooling and should necessitate that every school engage in crisis preparation and response to ensure effective transitions. Federal, state, and district-level policies might support training for crisis planning and management as well as setting requirements for readiness. Such efforts should be framed not only as traditional policy initiatives to limit disruptions, but as a critical equity tool given that students from historically marginalized groups are most likely to be negatively impacted by school closures and a lack of school preparation.

The findings from the survey also indicate that schools play a critical role in providing families with information. Principals reported varying levels of communication related to academic instruction, student well-being, available health services, and information on COVID-19. In non-crisis circumstances, researchers have highlighted that effective schools not only support student

achievement, but also serve as a community hub and a connector to critical resources and networks proceeding disasters and school closure (Oktari et al., 2018). Similarly, crisis management in schools requires that principals have a crisis plan and can effectively communicate, coordinate, and provide support to all school personnel, students, and families as appropriate (Grissom & Condon, 2021). The pandemic and subsequent school closure highlights how important schools are to families in times of crisis. This study assessed school communication based on principal recollections and experiences during the pandemic. Additional research is needed to understand the degree to which communication during the pandemic was effective, including the degree to which information was available and accessible to all teachers, families, and students. Policymakers might consider communication as key aspects of crisis planning and utilize scholarship from different fields (e.g., Hart et al., 2001; Mumford et al., 2007) to inform next generation policies and preparation.

Principals generally reported that their districts provided adequate supports across multiple areas (e.g., access to devices, hotspots, training, and learning management systems). These findings highlight that some schools will need greater supports. Findings related to district support should be cautiously interpreted given that teachers might be better at assessing the degree to which the district provided adequate support related to "high quality materials to support academic instruction" or training to support teachers' ability to deliver distance learning. Recent research relying on teacher surveys found that many teachers struggled to find success in the transition to distance learning (Kraft et al., 2020). These findings may be due to a mismatch in resources and support from the district or more broadly related to the many ways COVID-19 impacted the lives of teachers. Researchers and policymakers might consider further investigation into the degree to which teachers felt supported or unsupported, especially as teacher burnout and early retirement appear to be growing concerns associated with the pandemic. They might also investigate the degree principals and educators are adequately prepared to utilize technology resources which are becoming increasingly available and embedded within society (Sterrett & Richardson, 2020).

The findings we presented also indicate that students with disabilities, EL students, students experiencing poverty, and students who were struggling academically prior to the pandemic were most likely to struggle and continue to struggle as a result of school closure. In addition, school contexts serving high-proportions of low-income students and students of color in urban and rural settings were also more likely to struggle to access necessary resources. These findings come as little surprise given that these concerns existed prior to the pandemic. Many researchers and organizations have raised concerns that vulnerable student groups have been disproportionately impacted by the

pandemic for a variety of reasons, including a lack of access to necessary mental health, nutrition, and academic resources as well as the complexity of providing targeted, research-based interventions through distance learning (Masonbrink & Hurley, 2020; Stenhoff et al., 2020). As policymakers make deliberations about how to distribute resources at the federal and state level, they would be wise to consider the disproportionate impact of the pandemic on low-income communities and communities of color. Stimulus packages and additional investments into public education should address long-standing and current inequities that disadvantage certain communities, schools, families, and students.

In sum, the findings we presented from the RAND American School Leader Panel 2020 COVID-19 Distance Learning Surveys provide important, but limited insights into what happened at the beginning of the COVID-19 pandemic. These findings are limited in that they only provide principal perceptions, but leave out educators, families, students, and other important stakeholders. Further research is needed to understand how schools responded to closure, how all stakeholders were impacted, how states and districts responded, and the degree to which students were negatively impacted. More comprehensive research may elicit critical insights for policymakers and practitioners. Further research is also needed to identify effective practices adopted by principals and educators, which can help to inform future policies, preparation and in-service training, and crisis planning (DeMatthews et al., 2020a). Future attention and preparation will be needed to ensure state, district, and school leaders proactively engage in activities to mitigate or prevent crises and are also prepared to respond quickly and learn when crises arise (Grissom & Condon, 2021). Finally, as it is clear that the pandemic has disproportionality impacted low-income students and students of color as well as EL students and students with disabilities, a more comprehensive understanding of school closures impact can be used to advocate and inform next generation policies and practices that are so desperately needed.

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