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Abstract

This report describes how rural districts navigated school closures due to the COVID-19 pandemic in Spring 2020. Semi-structured interviews were conducted with 40 out of 49 districts in New York and Ohio that were part of the National Center for Rural Education Research Networks (NCRERN). The majority of interviews took place when schools were 3-5 weeks into shutdown. We found that NCRERN partner districts focused their early pandemic response on (1) meeting students' basic needs, (2) facilitating access to learning, (3) educating students, and (4) building community.

The Response of Rural Districts to the COVID-19 Pandemic

Tara Nicola, Alexis Gable, Jennifer Ash

Given the major disruptions to students' daily lives as well as the education field more generally caused by the COVID-19 pandemic, NCRERN was interested in learning how its partner districts navigated mandatory school closures and the shift to online learning, as well as identifying ways that NCRERN could support the short- and long-term needs of rural educators. Throughout April 2020, NCRERN staff conducted semi-structured phone interviews with district officials and other leaders from 40 out of its 49 partner rural districts in Ohio and New York. The majority of interviews took place when schools were 3–5 weeks into shutdown. Notes from each interview were coded by two graduate research assistants to identify major themes that emerged from the conversations. Because interviews were semi-structured, not all districts answered each question; as a result, counts should be interpreted with caution.
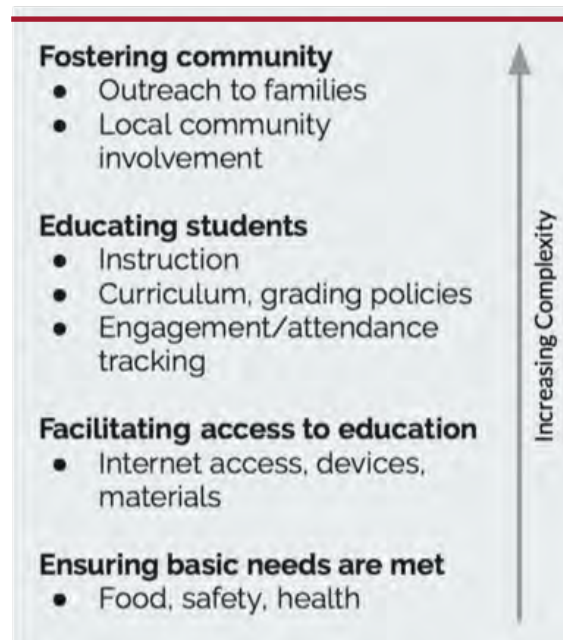
Findings

The COVID-19 pandemic has highlighted the critical role that schools play in the lives of the students they serve. Schools are more than just places of academic instruction—they provide food and healthcare for students, foster a sense of community, and are sources of support for families and other education stakeholders. So much of what schools do, however, is predicated on students, teachers, staff, and parents closely interacting in a physical school building. COVID-19 has required schools to quickly adapt to fulfill their many functions.

The interviews with NCRERN's district partners underscored how these educators rose to the call to continue supporting students since schools closed in March 2020. This report examines four key functions of schools (see Figure 1) that districts worked diligently to

Figure 1. Four Key Functions of Schools

Fostering community
- Outreach to families
- Local community involvement

Educating students
- Instruction
- Curriculum, grading policies
- Engagement/attendance tracking

Facilitating access to education
- Internet access, devices, materials

Ensuring basic needs are met
- Food, safety, health

Increasing Complexity

address in the midst of the COVID-19 pandemic: (1) meeting students' basic needs, (2) facilitating access to learning, (3) educating students, and (4) building community. These areas ranged from the more straightforward functions of schools (e.g., providing nutritious meals) to the more complex (e.g., fostering belonging).

How were districts meeting students' basic needs?

At the time interviews were conducted, the mission of NCRERN's partner districts amid COVID-19 was largely focused on addressing three basic needs of students: access to food, physical safety, and mental healthcare.

Food

Ensuring that students continued to receive meals was a key priority for districts. Both the New York State Education Department[1] and the Ohio Department of Education[2] released guidance at the start of school closures emphasizing the importance of the continuity of meal distribution programs, as many students rely on schools to provide at least two meals a day. In fact, approximately 52% of students in NCRERN's Ohio partner districts and 39% of students in its New York partner districts received free or reduced-price lunch prior to the COVID-19 pandemic. Many district leaders noted how their schools went above and beyond to make sure students were fed when school buildings closed, enlisting teachers, paraprofessionals, and community volunteers, including state patrol officers, to help with the preparation and distribution of thousands of meals. Some schools even provided food for entire families and for local children who were not enrolled.

Because not all students and families were able to leave their homes during the pandemic or access transportation to pick up meals from distribution points, districts devised creative methods for delivering food. For example, 16 districts instituted robust delivery programs, many of which involved school bus drivers

Creative Methods for Food Distribution

Districts implemented a number of creative solutions for delivering meals to students, including:

- Bus drivers delivering meals door-to-door with school volunteers or dropping off meals at designated distribution spots in the local community.

- Families placing a cooler at the end of their driveways or outside their front doors to facilitate contactless meal distribution.

- Staggering food distribution pickup times at schools to promote social distancing.

- Distributing meals in bulk (i.e., providing two- or three-days' worth of food at a time) to limit the exposure of bus drivers, meal preparation staff, and school volunteers to COVID-19.

- Orchestrating curbside pickup options for families.

delivering food door-to-door or at designated bus stops. One Ohio district described the significant amount of time their staff dedicated to preparing and delivering food packages to over 1000 students per day. They reiterated how important the meal program was, not only for supporting students' nutrition, but also for allowing educators to meet other student needs such as delivering instructional materials to students without internet. Similarly, another Ohio district shared how their meal delivery program was essential to boosting the morale of staff, allowing bus drivers, teachers, and others to connect with students— if only from a distance. "The kids are just as excited to see the staff as the staff are to see them," one official noted.

Safety

Another basic need that districts prioritized was assessing the physical safety of students. Despite their intensive outreach efforts to speak with students and families via phone calls, text

messages, and letters, some schools were unable to connect with every student. Eleven districts reported trouble contacting some students; although most had not heard from only a handful of students by the time interviews were conducted in April, one district had lost contact with 46 students—about 8% of their student population. Districts were especially concerned about the physical safety of these missing students and sometimes had to resort to deploying school resource officers to conduct wellness checks.

In-person contact allows school staff to observe signs of abuse and neglect; virtual learning makes these observations much more difficult to undertake. Indeed, educators voiced fears for the well-being of not only students who haven't engaged in schoolwork since the shutdowns began, but also those who have attended classes virtually each day. As one leader from a New York district stated, even with using video conferencing software like Zoom, teachers and staff cannot fully "be the extra set of eyes to ensure they are being treated well by caregivers. Even though we are providing meals, are they truly getting fed? Are parents taking their anxiety out on their kids?" A number of district officials discussed concerns about students potentially experiencing physical abuse at home and being unable to seek help. A teacher from another New York district shared that she really values when students participate in video conference calls so she can check in on them. "In reality, I am happy if the kids get on and show me their pets. I just want to know they are ok," she noted.

Mental Health

In addition to checking whether students were physically safe, districts also focused on supporting students' emotional well-being. At the time interviews were conducted, districts appeared to place a larger priority on addressing student mental health needs than academic progress. As one New York official stated, his district was more focused on students' social emotional health because "we can always fill in the academic gaps." Districts explained that many of their students come from unstable home environments where they may experience trauma or other types of harm. Furthermore, some students have parents who lost their jobs as a result of business shutdowns from the pandemic and were facing financial instability. Districts grappled with how to address increasing anxiety and depression amongst students, which affected their academic performance. One principal shared a story of a senior who was a top student prior to the COVID-19 pandemic but became depressed and struggled to submit assignments due to her feelings of isolation.

Districts addressed mental health concerns primarily through having teachers connect struggling students with school counselors, social workers, and school psychologists. One Ohio district also leveraged a needs assessment survey to link students with the supports they needed. Despite widespread concern about the social emotional health of students, district officials voiced frustration at the limited resources at their disposal to actually ameliorate these issues. One New York teacher explained how, given increased demand for services since the COVID-19 pandemic began, her school had to stop referring students to external counseling clinicians; this left her school's counselors overwhelmed and her students without access to therapy.

How were students accessing learning in a remote environment?

Amid COVID-19-related school closures, all the New York and Ohio districts interviewed quickly shifted to educating in a remote learning environment. Learning remotely, however, required that students could access a device and stable internet connection. Generally, the districts were able to distribute electronic devices (for example, iPads or Chromebooks) to students who needed them. Twelve New York and three Ohio districts already had in place one-to-one computing programs for at least some grade levels before the pandemic

Combating the Digital Divide

Ensuring that students could access stable internet was a primary concern as districts moved to distance learning. Some ways that districts addressed this issue included:

- Creating maps that showed areas in the local community with free Wi-Fi.

- Purchasing cellular data plans for students with smartphones or tablets.

- Connecting families with companies offering low-cost internet during COVID-19.

- Buying and distributing individual hotspots (e.g., Verizon Mi-Fi and Kajeet devices) directly to students.

- Upgrading the school's Wi-Fi so that it both reached the parking lot and had sufficient bandwidth to accommodate many users.

- Constructing workspaces in school parking lots where students could access the school internet and complete their schoolwork.

and, as a result, experienced a relatively seamless transition to remote learning. For other districts, the shift to remote learning was more complicated as they had to first purchase laptops or have local businesses donate them and then use surveys and other outreach efforts to identify students who should receive the devices. Although these districts generally tried to provide one device per family, officials raised concerns about the practicalities of whether students would be able to use the device if they were sharing it with other siblings.

By far, finding stable internet access for students was the major obstacle that districts faced in administering remote learning—a much larger problem than providing devices. Nearly every district mentioned facing this issue, although the degree to which it affected their students varied. Whereas for some districts only a handful of students were without internet, in others as many as 33% of students could not access the internet. Districts tried a number of means to provide students with internet, including constructing maps that showed locations in the local community offering free internet access, purchasing cellular data for students with phones or tablets, and connecting families with companies that offered free or low-cost internet. Notably, nine districts set up hotspots in their school parking lots where students could download materials and upload assignments. One Ohio district even put up tents in their school parking lots with tables and chairs where students could work while accessing the internet; families then sanitized the area afterwards for the next user.

Many districts considered the purchase of individual hotspot devices so students could access the internet at home. Because reliable internet is not always available in rural areas, some districts had already purchased hotspots that students could check out and take home; however, districts generally did not have enough to provide for every student without internet during the pandemic. Furthermore, some teachers also needed hotspots in order to access stable internet after school shutdowns, which reduced the number of hotspots available for students. While hotspots are ideal for those who do not live close to public locations with free Wi-Fi, they are expensive—one district spent upwards of $25,000 for 97 hotspots. Furthermore, there are limits on the amount of data that can be accessed on a hotspot, which can be especially problematic when streaming content. Hotspots also do not work well in very remote areas where there are few cellular towers.

What did education look like during a global pandemic?

After ensuring students' basic needs were met, districts then focused on facilitating distance education. Four key areas emerged from the interviews as elements of distance

education that districts were in the process of developing: instruction, curriculum, grading, and student engagement.

Instruction

Because of unreliable internet access, districts had to find creative ways to equitably meet student needs. Most districts opted to provide three modalities of instruction: synchronous online learning, asynchronous online learning, and self-guided learning through packets or workbooks. Though synchronous learning is most similar to in-person learning, it was not always possible due to limited internet and device access in the home. In addition, some districts restricted schools from using video conferencing software like Zoom, which made orchestrating synchronous learning more difficult. Asynchronous learning is perhaps the most flexible instructional modality, where recorded lectures allow teachers to engage with students on varying schedules; however, districts found asynchronous learning difficult in households with few devices. For students unable to access any form of online learning, districts provided paper packets and workbooks—in some cases, teachers themselves dropped off materials on students' front porches.

Districts tried to provide direct instruction to those students without internet access. For example, in one New York district, teachers loaded pre-recorded lectures onto USB drives for students. Others found teacher office hours—which allowed for direct communication between students and teachers and often took place via Zoom, phone, and text—to be a helpful complement to self-guided instruction. One teacher even conducted "drive by" socially distant office hours from her driveway.

Even with reconfiguring instruction across three modalities, districts found it difficult to identify effective strategies for instructing younger students: "What does effective e-learning look like for a 5-year-old?" the superintendent of one New York district asked. To keep younger students engaged, an Ohio district set up a

system whereby every elementary school student received one phone call a day from their teachers, but these phone calls were not designed to necessarily facilitate instruction.

Curriculum

School curricula shifted with the transition to remote learning. At the time districts were interviewed, when it wasn't clear whether schools would remain closed long-term, many had teachers focus on reviewing past content rather than presenting new concepts. Some districts felt that reviewing content in the weeks immediately following school closures helped to address equity concerns, as not all students were able to access content remotely. As one Ohio superintendent noted, "I'm not anti-tech, but I want teachers in the classroom with kids. It's not fair to the kids who don't have reliable internet access."

Many schools—even those that were beginning to teach new content—felt the amount of content that could be covered in a digital learning space was more limited. This was especially true in districts adopting primarily asynchronous learning approaches as well as in those with a sizable population of students receiving paper packets. Even districts attempting synchronous learning noted that a traditional 6-hour school day of live instruction was harder to replicate via Zoom. Recognizing this, some districts set limits for the amount of instructional time students received during the school day. For example, one New York district aimed for no more than 2.5 hours of instruction per day.

As a result of these changes, the districts interviewed noted they were beginning to grapple with how to redesign curriculum for the fall given that students may not meet all their current grade-level standards by the end of the spring 2020 semester.

Grading

Just as expectations about curriculum changed, so, too, did district grading policies. Although some districts opted to retain their normal

standards-based grading policies for the spring semester, others adopted more flexible assessment policies such as grading students pass/fail or providing written feedback in lieu of grades. Although less common, some districts created entirely new grading rubrics that they were beginning to roll out at the time they were interviewed. One district in Ohio even allowed high school students to choose between receiving letter or pass/fail grades as they felt that students were in the best position to decide which policy was the most equitable given their personal situation.

Attendance

With the shift to distance learning, schools had to change the ways they assessed attendance. This was especially true in schools that adopted asynchronous learning where students were not expected to engage with schoolwork during the standard 8 a.m. to 3 p.m. school day. Some schools switched to taking attendance on a weekly basis, typically through synchronous class attendance or personal phone calls. At the time of our interviews, most districts conflated student attendance with assignment completion. In one Ohio district, daily attendance was measured by project submission, where students were marked present for each day between project assignment and submission.

Districts often relied on their teachers to keep track of student attendance, and some schools requested that teachers input this information into spreadsheets accessible to school leadership. Districts varied in the degree to which they aggregated attendance information across classrooms and schools.

Student Engagement

Student engagement was a key metric that districts were particularly interested in tracking. When asked how many students engaged in learning, districts noted that engagement varied based on classroom and grade. Of the 17 districts that quantified engagement levels,[3] they reported an average 75% engagement

rate, with a range between 20 and 95%. It was difficult for districts to determine if low levels of engagement were due to barriers in access to learning or student choice. Districts noted that the COVID-19 pandemic seemed to have exacerbated disparities in face-to-face engagement levels; students with high in-person participation were more likely to engage in distance learning. Across all districts, there was lower engagement for students in special education. Districts also noted how they paid special attention to the engagement of high school seniors, who still had requirements to fulfill for graduation.

How did schools foster community?

Despite the difficult circumstances, maintaining a sense of community remained a top concern and source of strength for rural districts. In order to facilitate school-family connections, districts communicated with families in a variety of ways, including through school websites, Facebook Live check-ins, phone calls, social media posts, text messages, emails, home visits, postcards, and letters. At the time of our interviews, many districts were beginning to think more deeply about supporting parents. They recognized that parent responsibility drastically increased during the COVID-19 pandemic, and that parents may need additional guidance to aid their children in learning and beyond.

Schools also built community through retaining elements of their usual programming. For example, teachers organized virtual field days, Zoom lunches, art shows, and open mic nights. Districts also focused on celebrating graduating seniors through organizing parades and lighting athletic stadiums in their honor. In some cases, the fire and police departments aided schools in hosting these events.

What were districts' concerns for the future?

Though districts worked to create short-term solutions, they worried about their sustainability for the future. Districts were concerned about

practical, emotional, and financial challenges as a result of the uncertainty of the coming school year, coupled with the trauma that many of their students had already endured. At the time interviews were conducted, districts were beginning to think about how to implement social distancing on buses or at schools, adapt curriculum, transfer credits from a disrupted spring semester, and sustain engagement in a partially or fully virtual environment in the fall. Districts were also particularly concerned about students' mental health and their ability to become or remain engaged in school. Some districts noted the tension of potentially seeing decreased attendance if in-person classes resumed due to cautious parents while wanting to respect individual decision-making. Finally, rural districts spent time and resources implementing costly short-term solutions for their students, with no promise of increased funding for the fall. As they look forward, districts want to educate students equitably, but worry that they might fall short.

Questions to Consider

With seemingly no end in sight for the COVID-19 pandemic and the fall semester rapidly approaching, districts are grappling with how to build upon the lessons learned from their shift to remote education in the spring. Based on our interviews, three critical questions emerged that would behoove policymakers and education leaders to consider as they engage in fall contingency planning for rural districts in particular.

1. What are effective ways to measure student attendance in a distance or hybrid learning program?

As a result of the COVID-19 pandemic, the typical ways that districts track attendance were no longer feasible to implement. Due to the rapid shift to remote learning, many of the rural districts interviewed were unable to establish new systems for collecting this vital information.

It is clear that new standard measures for attendance are needed for fall 2020—especially for those districts which are unable to adopt synchronous learning approaches.

Ideally, these new attendance metrics should be:

- reliable
- capable of being translated across various modes of instruction
- robust to differences in learning by grade range and special education status
- practical for schools to capture

In addition, standardizing metrics across districts is critical. Standardized measures not only will allow for cross-district comparisons but also enable leaders to identify exemplar districts that can share best practices for supporting student learning.

In the coming months, districts will continue to search for innovative ways to measure student attendance. As they attempt to navigate this new reality, attendance standards and accountability for failing to meet them remain as open questions. NCRERN hopes to begin to address these issues by providing recommendations for equitable standards and for raising students' attendance levels to meet those standards.

Attendance Matters

The research literature is clear that school attendance matters: students who consistently attend school have higher levels of achievement, are more likely to graduate, and have better health outcomes in adulthood.[4] Accurately tracking attendance is critical because it allows school stakeholders to identify and provide supports to students who are at-risk of underachieving.

2. How can schools deliver the same quality of instruction to all students when some lack access to resources like the internet and electronic devices that facilitate learning?

Despite the best efforts of NCRERN's partner districts, not all of their students were able to access internet or computers, which had significant implications for their learning. Subpar broadband infrastructure in rural areas, compounded by budget constraints and other obstacles, mean that some students this fall will still be unable to fully participate in virtual learning. While paper packets were a suitable short-term alternative for educating students, that type of self-guided, independent learning is not the same as synchronous or asynchronous instruction. Furthermore, given the high costs associated with printing and mailing papers to students and the difficulties districts faced in retrieving students' handwritten work for grading purposes, packets may not be a feasible long-term means of instruction.

Creative Instructional Methods

Interviews with NCRERN's districts highlighted creative ways that educators can provide instruction to students. One potentially powerful solution for distributing educational content to students with limited internet access is via preloaded flash drives or tablets (that do not require internet) that contain recorded lectures, PDF documents, and other resources. This approach has been used by educators in developing countries to provide access to educational games and content to students who live in remote areas.[5] The asynchronous learning can be supplemented with teacher office hours via phone or text message to further deepen student learning. In sum, given the prolonged duration of the COVID-19 pandemic, districts should investigate alternatives to paper packets to ensure students without internet access are still receiving high-quality instruction.

3. What is the role of the state in providing guidance to rural school districts?

As districts adjusted to remote learning, many looked to the state for guidance and support. Immediately following school closures, the New York State Education Department issued guidance for districts concerning meal distribution, continuity of learning, and childcare plans, and required that districts submit COVID-19 closure plans regarding these same areas.[6] In Ohio, Governor Mike DeWine also encouraged districts to "work to provide education through alternative means," emphasizing collaboration between local school leaders, boards of education, governing authorities, and union leadership.[7]

Confusion without Statewide Guidance

States could play an important role in determining school priorities and creating unified measures of attendance and learning. Allowing districts to implement their own attendance and grading policies led to confusion in some cases during the spring semester. For example, one Ohio district explained that school resource officers typically visit students with truancy concerns. But in the context of COVID-19, they felt they couldn't "hold the kids accountable" for missing school. Similarly, a New York district noted that they opted to wait for state guidance before making the decision to teach new material. Some districts were concerned about continuing curriculum because of inequitable access to synchronous or asynchronous learning. States could consider providing guidance to districts on measuring attendance, new thresholds for absenteeism, policies for failing to meet attendance goals, and curriculum standards.

The Need for Individualized Support

However, our interviews illuminate that rural districts vary in infrastructure, resources, and

Balancing Statewide Guidance with Individualized Support

States must make decisions about what level of support and guidance to offer rural districts. While statewide guidance can serve as a North Star for overwhelmed districts, it can also overlook the many differences between rural districts, even within the same state. In some cases, leaving decisions to districts without providing additional supports could further exacerbate inequities within and between districts. But at the same time, failing to recognize that rural districts are not one-size-fits-all could make statewide guidance obsolete.

student challenges. In NCRERN districts, the percentage of students receiving free or reduced-price lunch varies from 22 to 77%. While no transition to distance learning was smooth, some districts could more quickly shift focus from device access to continued learning due to pre-existing one-to-one device policies. Districts with robust internet infrastructure were not as susceptible to spending time and resources on hotspots and partnerships with internet companies. State guidance should reflect that rural districts are not one-size-fits-all, and might consider allowing for flexibility and additional supports where needed. ∎

Endnotes

1 Tahoe, S.L. (2020, March 17). *Additional guidance on statewide school closures*. New York State Education Department. Retrieved from **http://www.nysed.gov/ common/nysed/files/programs/coronavirus/nysed-covid-19-third-guidance-3-17-20.pdf**

2 Ohio Department of Education. (2020). *Whole-child nutrition*. Retrieved from **http://education.ohio.gov/ Topics/Student-Supports/Coronavirus/Supporting-Whole-Child-Nutrition**

3 Note that district officials were asked to estimate student engagement levels. As such, the specific criteria used to assess engagement likely differ across districts.

4 Center for Research in Education and Social Policy. (2018). *Chronic absenteeism and its impact on achievement* (P18-002.5). University of Delaware. Retrieved from **https://www.cresp.udel.edu/wp-content/ uploads/2018/07/P18-002.5_final.pdf**

5 For example, Pratham, one of the largest NGOs in India, provided thousands of students with tablets preloaded with educational content as part of a large-scale intervention to improve students' academic achievement. Content was manually uploaded to the devices. For further information, see **https://www. pratham.org/programs/education/digital-initiatives/**.

6 Tahoe, S.L. (2020, March 17). *Additional guidance on statewide school closures*. New York State Education Department. Retrieved from **http://www.nysed.gov/ common/nysed/files/programs/coronavirus/nysed-covid-19-third-guidance-3-17-20.pdf**

7 Ohio Department of Education (2020). *School-building closure FAQs*. Retrieved from **http://education.ohio.gov/ Topics/Student-Supports/Coronavirus/Frequently-Asked-Questions-Governor-DeWine%E2%80%99s-Scho#FAQ3869**

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