CRECE
CENTER FOR RESEARCH ON
EARLY CHILDHOOD EDUCATION

COVID-19 AND 4-YEAR-OLD KINDERGARTEN (4K):

Summary Report on Dane County School District Impacts and Responses

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Executive Summary

The COVID-19 pandemic brought unprecedented disruptions across all levels of American education. In Wisconsin's mixed-delivery 4-year-old kindergarten (4K) system, the disruptions exacerbated existing inequities and challenged the system's ability to provide high-quality opportunities to all children. In June 2020, our team of researchers at the Center for Research on Early Childhood Education (CRECE) at the University of Wisconsin–Madison (UW–Madison) launched a study on how COVID-19 impacted 4K programming in Wisconsin. Our study included a statewide survey of district 4K program administrators and, in Dane county specifically, a survey of teachers and interviews with teachers and parents. This report synthesizes findings from this research in three key areas. First, we describe how districts in Dane County made decisions about the format of 4K instruction during the pandemic (e.g., virtual, in-person, hybrid), and how teachers and parents experienced these policy decisions. Second, we describe the resources districts provided to teachers and parents and the ways teachers and parents experienced this support. Finally, we explore potential silver linings in an otherwise challenging time. Below we summarize key findings.

Programming Shifts During COVID-19

4K programs in Dane County offered instruction remotely in Spring 2020 as the COVID-19 pandemic hit. Dane County districts were quicker than districts across the state to offer synchronous lessons using technologies such as Zoom. Yet, Dane County programs faced radical shifts that created a challenging teaching environment. Further, a majority of Dane County districts made decisions about the format of instruction for the 2020–21 school year quite late in summer 2020 and continued to change the model throughout the school year. This made it difficult for teachers to establish classroom routines. Also, it presented parents with difficult choices about their child's 4K experience, with a key challenge being balancing parental work with supervision of remote instruction at home.

Supporting Teachers and Families During COVID-19

Dane County districts provided resources to help 4K teachers and parents. Teachers received support around how to talk to families about COVID-19 and how to mitigate its spread. They received less support with curriculum, and they were responsible for adapting the curriculum. This increased job stress for the teachers, with those teaching in-person experiencing additional stress. Support for 4K families focused on basic needs, such as food. Families reported less support with learning materials, such as books and tablets or laptops, leaving concerns about how equitable access to remote instruction was for all families. Some families with a special needs student or an English language learner (ELL) did not receive added services during COVID-19.

Silver Linings and Future Considerations for 4K in Dane County

As Dane County 4K teachers and families adapted to the COVID-19 crisis, they experienced some positive outcomes. First, many teachers and parents felt more closely connected to each other. The use of new communication technologies such as Seesaw (mobile app used to share student work and communicate with parents about student progress) and Zoom increased the responsibilities parents had for their child's education and gave parents a deeper appreciation for the work 4K teachers do. How to sustain these strengthened parent-teacher relationships after the pandemic subsides is an important question raised by this research. Second, for some students, virtual 4K seemed to work well, either as a fulltime option or for short periods when a student might need to be away from school. How 4K sites choose to maintain the virtual learning options they created during COVID-19, while balancing the time and money this requires, is another important policy question to consider. Finally, teachers found new opportunities, including more planning time and collaboration with colleagues, that they hope will continue once the pandemic crisis wanes.

I. DATA COLLECTION

Our snapshot of COVID's impact on Dane County 4K program integrates four data sources. Below we provide a brief description of these sources.

1. Statewide Survey of 4K District Administrators

From December 2020 to March 2021, CRECE surveyed 422 Wisconsin districts that operate a 4K program. The survey was distributed by email, and respondents received $20 upon completion. We received 183 completed surveys from 427 possible administrators, a 42.9% response rate. In this report we use these data to describe how Dane County districts adapted policies and programs during Spring 2020 and Fall 2020. We received 14 responses from administrators in Dane County districts.

2. Survey of Dane County 4K Teachers

From February to May 2021, CRECE surveyed 123 4K teachers in eight Dane County districts: Cambridge, DeForest, Madison, Middleton-Cross Plains, Monona Grove, Mount Horeb, Stoughton, and Sun Prairie. Teachers received $50 after completing the survey; 59 teachers completed the survey, a 48% response rate. The survey asked teachers about their curriculum and instruction, support they received, and their wellbeing during the pandemic. Survey respondents represented all three 4K model types.

Table 1. Teacher Survey Responses by 4K Setting

4K Setting	Total Interviews	Percent
4K in Head Start Center	7	12%
4K in community-based child-care center	32	54%
4K in public elementary school	20	34%
Total	**59**	**100%**

3. Interviews with 4K Teachers

Teachers in the same eight districts were invited to participate in an interview with our research team using Zoom. Teachers received $50 after completing their interview. In total, 25 teachers in Dane County completed interviews between March and June 2021. In Table 2, we indicate how many teachers in each 4K setting participated in interviews.

Table 2. Teacher Interview Sample by 4K setting

4K Setting	Total Interviews	Percent
Head Start Center	1	4%
Child Care Center	13	52%
Public Elementary School	11	44%
Total	**25**	**100%**

4. Interviews with 4K Parents

In the eight districts, parents were invited to share their experience in 4K during COVID-19 through Zoom interviews. Parents received $50 after completing their interview. We conducted 61 parent interviews.

Table 3. Parent Interview Sample By 4K setting

4K Setting	Total Interviews	Percent
Head Start Center	0	0%
Child Care Center	32	52%
Public Elementary School	29	48%
Total	**61**	**100%**

II. DISTRICT INSTRUCTIONAL POLICY DURING COVID-19 AND IMPLICATIONS FOR TEACHERS AND FAMILIES

In Emergency Order #1, Wisconsin Governor Tony Evers ordered all public and private schools to close on March 18, 2020, and encouraged districts to facilitate distance or remote learning opportunities for students. This shift required districts to rapidly develop new policies and practices across all grades and schools. Despite these challenges, Dane County districts offered some form of remote 4K instruction, and all the teachers we surveyed or talked to taught remotely that Spring. During this time, when all schools were remote, Dane County 4K teachers relied most on methods that required families to have a home learning laptop or tablet rather than activities that could be done offline. Asynchronous lessons and video-recorded lessons were used most frequently. Packets sent home were the least utilized mode.

Making Choices Among In-Person, Remote and Hybrid Options in Fall 2020

Districts made different choices about how to deliver instruction to start the 2020–21 school year. Eight of the fourteen Dane County district administrators surveyed reported that their district began the Fall 2020 school year with a hybrid model. Five indicated all-remote instruction and one said their district began entirely in-person.

These dramatic shifts forced teachers to develop new teaching methods. In Fall 2020, Dane County districts that offered a remote option reported offering similar forms of remote instruction that they used in Spring 2020, with asynchronous lessons and video-recorded lessons used most frequently, and packets sent home used the least.

In interviews, teachers told us that teaching remotely was challenging and labor intensive. For example, one teacher stated:

> The work was twice the amount than regular teaching. I not only had to plan what I was going to do with my Zoom, I had to plan how I was going to somehow assess [the children] and then I had to plan how to go through all of the activities, and I think that it took me about 1 hour to make a quality Seesaw activity. And we had the district requiring us to have at least three or four activities a day (Middleton-Cross Plains, school-based, teacher).

District decisions about instructional formats also forced parents to make difficult decisions about whether to send their child to in-person instruction or find a way to manage remote instruction. Parents

had a variety of reasons they chose remote or in-person instruction for their child. Parents who favored remote 4K had safety concerns and/or work flexibility, whereas parents who preferred in-person 4K had inflexible work schedules/demands, too many things (e.g., a number of children doing remote at the same household) to handle at home, or placed high value on socioemotional learning. Parents who had work flexibility and family support (e.g., grandparents) were less likely to have challenges with child care during remote 4K. For example, one parent decided to keep their child home for remote learning because of safety concerns and family support. The parent said:

> My parents helped out with child care. And we're very fortunate to have … that option. We're just keeping our bubble super small and if we had to make our bubble big, we wouldn't be able to [do 4K]. It would have been really hard to work that out, and so [not doing 4K] would have been our choice, but luckily they are all virtual (De Forest, child care, parent).

The parent explained how their COVID-19 related safety concerns would have hindered their child from attending 4K and how their family support enabled them to address child care needs during the year. This parent later shared that their family support helped the parent "not [having] to navigate taking care of the boys and trying to do 4K" during their work hours at home. Without support, managing their child's 4K experience and addressing their child care needs might have been hard.

Parents who decided to stay with remote 4K in Fall 2020 described concerns, including their children's short attention spans and distractibility, lack of instructional time, and lack of social interactions. Many parents also questioned their role as a teacher during remote 4K because they needed to support their child's learning. However, some parents noted that children still made social connections

through virtual platforms, making their children feel comfortable when they went back to in-person 4K.

Parents also reflected on their child's in-person 4K experience and progress during the in-person learning. Despite COVID-19 safety concerns, many were glad for their children to be back in-person due to socioemotional learning aspects. However, some parents were worried about their child not learning enough due to social distancing, fewer group interactions, and fewer materials.

Late Decisions, Rapid Responses and Constant Change

The uncertainty surrounding COVID-19 meant that school districts struggled to decide how to offer instruction to start the 2020–21 school year, and when and if to change the instructional format throughout the school year. Most (66%) of the Dane County 4K teachers surveyed reported not knowing until August whether they would be teaching virtually or in person. Planning high-quality learning environments was difficult when teachers did not know whether they would be in-person or remote in the fall. One 4K teacher in an elementary school in Madison said, "We didn't have as much time to set up our classroom like we normally do in the beginning of the school year. There were a lot of unknowns, and it was hard to prepare without clear guidance."

Teachers were also challenged by the constant change in student cohorts and learning modality as more parents wanted to send their children back to school. This constant churn required teachers to build relationships with students and families swiftly. One teacher described how she built relationships with children coming back from remote learning, melding a group of three children who had been in person and children returning from remote learning:

> [W]e've had three kids since March and they've done so well. They've been with us the whole time, but I think it comes back to those

relationships and the kids. We talked a lot about [how] new kids are going to be joining us. "How do you think they feel when they've been home? You know, what can we do to help them [with] all these things?" [T]hey've just been embraced by all the kids at the school and two of them knew their neighbors … they already had that relationship so it's just kind of been really a natural addition of those kids (Mount Horeb, child care, teacher).

Parents also struggled with the late decisions made by districts. Most parents learned about the district decisions in mid or late summer. Parents were notified via email or letters from the school district or by the community-based 4K site. Most parents using a school-based 4K reported that their districts went with a remote format, whereas parents using community-based 4K reported that their sites had both.

The uncertainty of the 4K format brought up frustration, concerns about lack of information, and worries for parents who did not have time to plan for their child's 4K year or their own work schedules. For example, a parent who preferred in-person over remote 4K chose to homeschool their 4-year-old until the school district offered an in-person option:

> I tend to be highly organized and a big planner. So, I remember it was probably about mid-July. They hadn't really come out with a plan yet, and that was making me feel anxious, "Okay, we only have a month and a little bit and I don't know what's going on." So, if I want them to start homeschooling, I want to start putting curriculum together versus if I wanted them to go to school, then, I wouldn't have to. I just felt like it took a lot longer than I wanted to really get any answers about what school is going to look like. So, I just said, "I'm going to feel better if I can take control and do it my way." And about mid July is

when we were just like, "Nope, I am gonna homeschool." I'm done waiting for other people and trying to figure it out (Madison, school-based, parent).

In contrast, parents who planned for their child to continue in child care knew that their centers would be open in the fall so they did not face the uncertainty experienced by school-based 4K parents. Their continuity of care made their planning relatively smooth. This is illustrated by one parent's account in the De Forest Area School District: "Regardless of what other schools were doing, I know that [my child] would be in the daycare 4K environment. I already knew that she was going to be in person." This group of parents were mostly concerned about COVID-19 related safety matters; however, their employment needs weighed heavily on their decision about remaining in in-person 4K. For example, one working parent was relieved to know that their child's child care center would provide in-person 4K.

> Our decision to take him to school face to face or not was determined when we realized that it's affecting the job performance at home, so we took the chance of taking him to daycare and we saw the protocol, face masking and cleaning. They have a nice routine and … a limited number of students per class…. [T]he parents don't go into the rooms, only students. So, that's a pretty aggressive precaution. So we were comfortable with that. And he kind of got acclimated with it, and it was working well (Middleton-Cross Plains, child care, parent).

This family's experience is an example of how the flexibility of work at home intersected with decision-making about 4K during COVID. When parents have the resources to do things such as pay for child care, they have more access to different enrollment options. At the same time, later in the interview the

parent told us that they did not feel that their child's experience and family planning were affected by COVID-19 because the 4K schedule was the same as the schedule of the child care center the child went to before 4K.

During the 2020–21 school year, districts continued to make changes to instructional formats, often in response to county and state public health orders. All school-based 4K teachers reported a format change, compared to only 50% of child care teachers and 43% Head Start teachers. One teacher described how the constant changes to instructional format caused disruptions for families: "It was a stressful time for teachers and parents. I felt like we had to just go with the flow this year. Things were always changing, which made it hard to lesson plan and keep routines consistent for the students and families" (Sun Prairie, child care, teacher). Despite these challenges, teachers were resilient as they adapted to the changes. A teacher who taught in-person in the fall described how she focused what she could control in her classroom to cope with the changing teaching environment:

> That's kind of been my whole year, just like, "That's fine, we're gonna be fine." [U]ntil it's not, you know? So it's like that, one day at a time and what can I control? Okay, so I can control what I do in my classroom. So if I want to clean more I'm going to clean more. If I want to distance my kids more I can do that because that's something I control for myself. So that helps a little bit with some of the stressors just because I can control in my classroom what I do, how I do it (Cambridge, school-based, teacher).

As districts started to include more in-person instruction, parents adjusted to new changes. Some parents and children had to adjust to a different teacher. This happened mostly in school-based 4K where they moved from remote in Fall 2020 to hybrid or in-person in Spring 2021. According to one parent:

> When [my son] went back into in-person in March, the teacher changed. So, that was actually kind of a big deal. He had such a fostered relationship with the teacher in virtual. That was hard knowing he wasn't going to school with that same teacher. He handled it beautifully and was totally fine. They did some transition visits on Zoom so, the kids could see her and get to know her. That was tough. It was like, "Oh, but we love her. We don't want to lose her. But we also want him in school" (Madison, school-based, parent).

One of the disadvantages of forging relationships, regardless of whether that relationship is face-to-face or remote, is that it can be painful when conditions force participants apart. In the shuffle of the Spring, it was painfully necessary to rework some groups but careful transitional planning can ease the process.

Mitigating the Spread of COVID-19 During In-Person Instruction

Dane County districts offering in-person instruction introduced a range of new policies and practices designed to mitigate the spread of COVID-19. For example, in Dane County 4K districts that offered in-person instruction in Fall 2020 almost all administrators described new cleaning and sanitization procedures and changes in how classrooms were arranged to facilitate social distancing. Table 4 provides a full breakdown of these in-person policy and practice shifts.

Table 4. Fall 2020 Practice or Policy in Dane County Districts

Fall 2020 Practice or Policy	% Districts that implemented
Schools provided regular temperature checks	30%
Schools implemented new cleaning and sanitation procedures	90%
Schools communicated with families about COVID-19	80%
Schools had new arrival and departure procedures	80%
District utilized other school or site spaces for instruction	20%
Schools altered class sizes	80%
Teachers changed how classrooms were arranged	90%
Schools introduced new mealtime procedures	40%
Daily school schedules were changed	40%
Teachers implemented new guidelines for materials use in the classroom	80%

In interviews, teachers who returned to in-person teaching in Fall 2020 described the challenges they faced implementing these new policies. A central struggle was reconfiguring the physical learning space. Despite wearing masks and washing their hands, 4K children are hard to social distance. A teacher told us:

We had to basically revamp some of the physical spaces in the classroom. We had to do a lot of things like moving around the cubby areas just so that kids weren't basically just stacked up on top of each other. Also, just we had to really look back through our materials. At that time we couldn't have any soft materials that weren't easily washable (Madison, child care, teacher).

Sanitizing materials and their classrooms took time from planning and teaching. Two teachers from Madison told us they disinfected all class materials at the end of the day for a long time, which they did not need to do before COVID-19.

We disinfected all of our materials every single night before we left. It was much more in depth than before COVID. So that alone would take 30 to 45 minutes. We were told to just wipe off the toilet seat and the toilet handle after every single child goes to the bathroom. We have two stalls in our classroom. So as kids started coming back, we're like "This is insane!"… So there are certain things that were very routine. But just added more time for sanitation and less one-on-one time with kids (Madison, school-based, teacher).

For teachers who already had little discretionary time, the additional burden of ensuring that classroom spaces were free of COVID-causing germs pushed some teachers to the next level of stress. Parents noticed the extra efforts being made including: mask wearing, hand washing, use of a separate entrance for children by classrooms or ages, social distancing, disinfection of shared play items, fewer children allowed in centers, hand sanitization upon building entry, and different drop off/pick up procedures (e.g., use different doors and no entry to the building).

III. DISTRICT SUPPORTS TO TEACHERS AND FAMILIES

In addition to making sweeping changes to 4K programs and policies, Dane County school districts provided support to teachers and families.

District Support to 4K Teachers During Remote Instruction

District support during Spring 2020 ranged from technological (e.g., video conferencing and tablets) to physical and mental health resources. Table 5 reports teacher accounts of district support. Overall, school site 4K teachers reported receiving more support than teachers in child care settings.

Table 5. Dane County District Supports to Teachers in Spring 2020 by Percent

Form of support	Overall (N=59)	Public schools (N=20)	Child care (N=32)
Resources to talk to children about COVID-19	37%	35%	34%
Video conferencing tools	36%	50%	31%
Technology support	34%	80%	13%
Professional development opportunities	29%	40%	19%
Laptop or tablet	25%	50%	9%
Resources to address mental health and wellbeing	20%	30%	16%
Video production tools	20%	30%	19%
Updated curriculum for remote instruction	17%	25%	16%

NOTE: Given the small sample size of Head Start teacher survey responses received (7), we do not report disaggregated Head Start teacher percentages.

In Fall 2020, teachers working remotely received much more support with professional development and technology than in the previous Spring. They were also much more likely to receive a laptop or tablet for remote teaching. Curriculum support rose from Spring to Fall.

Table 6. Dane County District Support to Remote Teachers in Fall 2020 by Percent

Form of support	Spring 2020	Fall 2020
Resources to share with families about how to talk to children about COVID-19	37%	55%
Video conferencing tools to support synchronous instruction with your students	36%	68%
Technology support	34%	91%
Professional development opportunities	29%	95%
Laptop or tablet	25%	91%
Resources to address your mental health and socioemotional wellbeing	20%	55%
Software or tools to support the production of video-based lessons	20%	59%
Updated curriculum or curriculum-development resources for remote instruction	17%	50%

N=22

District Support to 4K Teachers During In-Person Instruction

In Fall 2020, in-person teachers and those teaching remotely received different resources and support. In-person teachers were most likely to say they received physical resources to mitigate COVID-19, such as face coverings and sanitizing equipment. They were least likely to receive emotional support and resources to address their own basic needs.

Table 7. Dane County District Support to In-Person Teachers by Percent

Form of support	Fall 2020
Face coverings	88%
Sanitization equipment	88%
Support monitoring children you teach and yourself for COVID-19 infection	81%
Curriculum or curriculum development materials	75%
Professional development	73%
Resources to address children's mental health and socioemotional wellbeing	56%
Socioemotional support	50%
Resources to address your basic needs, such as food	50%

N=16

Teachers told us that they received more support in Fall 2020 with physical resources such as laptops and tablets or masks and sanitizing equipment. There were three areas in which teachers wanted more support: adapting curriculum, technology, and collaboration with other 4K teachers. For example, two teachers struggled to adjust their play-based curriculum for remote learning. One teacher wished that she could have more structured support with adapting her play-based curriculum at the beginning of the school year because she had never taught virtually. Another teacher said:

> I think what's been tricky for me with the Creative Curriculum is it is so hands on [with] lessons about going for a walk together and touching the tree together—you can't do that. I can take a video of myself touching the tree and talking about it, but it doesn't hold the same weight and so that is something that I have not been able to recreate. I can create a Seesaw post and say, "You should go for a walk and you should look for this type of tree, or you should try to find this plant." And

unless a family member takes them out to do that, you know it's not going to happen. [S]o as far as missing pieces that's the missing piece (Middleton, school-based, teacher).

Teachers' technology skills were essential for remote instruction. Teachers received more technology support in Fall 2020 than Spring 2020, but they felt the level of professional development was limited, and they still needed to figure out a lot on their own. One teacher shared her empathy for older teachers having to teach remotely.

> [For] quite a few older teachers last year and this year has been super rough on them because they're so used to doing one thing and now they've got to learn all this other stuff. On top of what's going on, it's a lot. I sat through classes to learn how to upload Seesaw. I'm not the most tech savvy person in the world, so I was writing lots of notes and I'm just thinking if I was a teacher who has been doing this for 30-plus years, this probably would just be pushing me over the top right now (Mount Horeb, child care, teacher).

Another teacher told us she needed more technical support. When asked about what professional development or support she would like, she replied: "Well a tutorial would have been nice and how to do some of the things that they were asking us to do. If they would have at least said, 'Okay, our professional development day, those of you that don't know how to do this, we will take you through it, step by step'" (Stoughton, child care, teacher).

Finally, teachers said that they wanted more opportunities to collaborate with other 4K teachers because they felt they had too much work. One teacher felt she had everything she needed in the classroom, except the ability to collaborate and connect with other teachers. As a workaround, she reached out to 4K teachers outside of her school district to make connections. Another veteran teacher felt so strongly about the lack of collaboration opportunities that she is considering leaving the profession:

> I don't feel like sometimes I'm given the space to share that with other people. And like even just to collaborate with a team member feels like a huge ask and I don't think that it should be a huge ask, I think it should just be something that is part of what we do…. So I don't know if it's just something that I can't decide if I want to keep putting up the good fight on saying, this is what we need. [A]nd how often do I say that and not see a change before I say okay this isn't working for me? (Middleton-Cross Plains, school-based, teacher).

Teachers also felt as though their voices were not heard in decision-making and planning. One teacher stated:

> It has been a very hard year overall since coming back to in-person learning in June 2020. Many challenges physically, emotionally, mentally. Felt completely burnt out…. I felt like teachers' experiences and personal feelings/opinions during this time were met with low priority since supporting children and families came first. I feel like this is the situation we were handed and unfortunately many childcare educators are leaving due to low pay, stress and trauma of teaching in the midst of COVID, and lack of available support (Madison, child care, teacher).

Beyond not feeling included in decision making, teachers often felt unsupported by their site and the district. A teacher who taught in person in the Fall told us that:

> Teaching in person during this time was challenging and it felt very isolating. We did not feel support in many of the ways we felt we should and didn't have much understanding from families/school on how difficult in-person instruction has been this year (Madison, child care, teacher).

The lack of support led at least one teacher to leave the profession. "The pandemic was a really stressful time to be a teacher," this teacher stated. "My mental health was not okay, my level of stress was through the roof, I feel completely burned out and because of it, this will be my last school year teaching. I wish we would have had more support" (Madison, child care, teacher).

These accounts of teachers feeling pessimistic, despite the support that was provided, is evident in the teacher survey as well. A majority of teachers surveyed—63%—said they missed work in the 2020–21 school year either because they felt sick, tested positive for COVID-19, were exposed to someone who tested positive, or failed or were unable to follow official guidance regarding such matters as quarantining. Reports of absences were much higher for teachers who taught in person. A third of teachers teaching remotely reported missing work, whereas 80% of teachers teaching in person and hybrid reported missing work.

Teachers teaching entirely in person during Fall 2020 were more likely than teachers teaching remotely or on a hybrid schedule during Fall 2020 to say their job was more stressful than it had been before COVID-19.

Figure 1. Dane County 4K Teacher Stress During Fall 2020 by Instructional Format
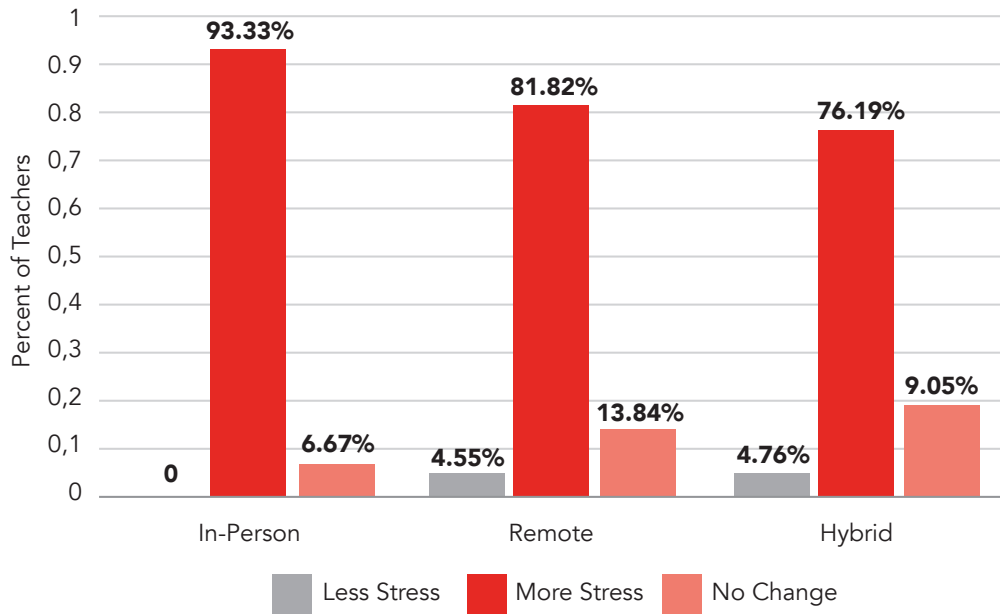
District Support to 4K Families

Districts across Dane County mobilized quickly in Spring 2020 to support students and their families. They were most likely to report providing food to families, followed by instructional materials and books, and least likely to report providing a laptop or tablet. District provision of food declined slightly from Spring to Fall 2020 as more children went back to in-person instruction. District provision of books and laptops or tablets went up from Spring to Fall 2020, and instructional materials remained the same.

Table 8. Dane County District Support to Families

Form of Family Support	Spring 2020	Fall 2020
Food	92.9%	92.3%
Instructional materials	76.9%	76.9%
Books	50%	66.7%
Laptop or tablet	28.6%	46.2%

Parents who did receive a laptop, tablet or hotspot from their school reported in interviews how it allowed their child to access remote instruction. However, some parents who utilized hotspots experienced unreliable internet connections, causing their child to miss school. Others noted that their child could not get a laptop or tablet for remote learning because the district provided the laptop or tablet to an older

sibling in the household and expected the older sibling to share with the 4K child. A parent from a district with this laptop and tablet policy explained why the policy might not work for all families:

> **Parent:** We've had home Internet. We had computers…. [M]y first grader has a computer from the school district, and then we had an extra tablet that a family member gave us that my 4K child could use, so it was pretty easy for us to manage the technology.
>
> **Interviewer:** Okay, so the district also offered devices for your 4K child?
>
> **Parent:** No. So they said, if you had an older kid who had a device, they were supposed to share, which would have been very difficult. So I don't know how a family can theoretically [do that]. My kids could have had class at the same time. We're supposed to share. I don't know how that's supposed to work. So we were lucky that we did not have to figure that out (Madison, school-based, parent).
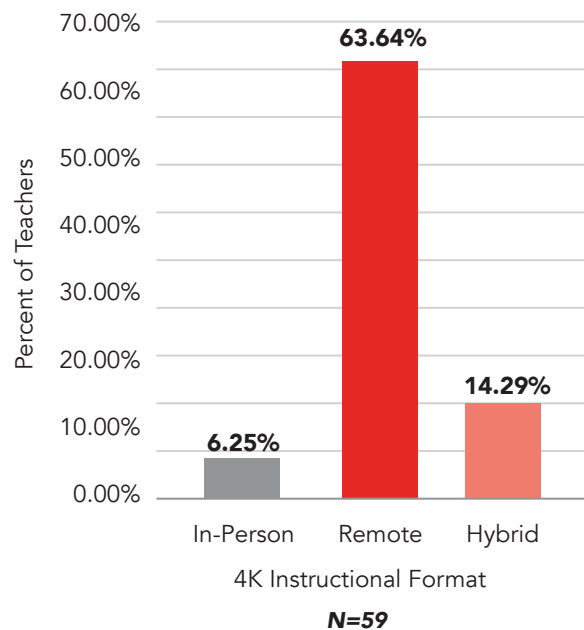
While on a theoretical level, siblings sharing a device made sense, the reality of concurrent class meetings made this unworkable for families without additional technology at home.

Support For Students with Special Needs and English Language Learners

Children with special needs continued to have needs during the pandemic. Thirteen of the fourteen Dane County district administrators surveyed indicated that their district established special procedures for students with disabilities. However, in both interviews and surveys, 4K teachers described having little extra support for students with special needs. Only 10% of 4K teachers in Dane County said they implemented special procedures for students with special needs last Spring 2020. This proportion increased to 30.51% for the 2020–21 school year. Interestingly, Dane County teachers teaching remotely in Fall 2020 were much more likely to say they implemented special procedures for students with special needs than those teaching hybrid or in person, as the Figure 2 shows.

Figure 2. Percent of Dane County 4K Teachers Implementing Special Procedures for Students with Disabilities in Fall 2020

Parents of students with special needs described the unique challenges they faced. For example, a parent of a child with special needs that participated in remote 4K indicated that their teacher's instructions during the virtual lessons and Seesaw activities did not provide accommodations for her child's physical needs; so her child could not participate, leaving the child and parent frustrated:

> We get a flyer that says how to read to your child. And that's where it's got like a list of 20 things. They just print it off the Internet with 20 ideas and how to reach your child or that it is like it's not specified for my situation and that's hard. And I can't ask my mother because her children could walk and talk. It's such uncharted territory (De Forest, child care, parent).

The parent found that her child often did not want to do virtual activities or gave up completing the virtual activities. The parent shared that she felt "incompetent" in supporting her child's learning. Another parent of a student with special needs said that she preferred two full-day, in-person 4K. She said:

> I like the two full days because of our large family and the needs they have. We have a lot of appointments because most of my kids see a therapist and then have different therapies. But then the 4-day program, either the afternoon or the morning, is two hours and 40 minutes or so…. I can't even get to the grocery store and back. If I put them in the morning, I can't even get anything done. I really can't get to an appointment and back with another child (De Forest, child care, parent).

Despite the challenges that the parent described, she kept her child enrolled in remote 4K in the Fall 2020 because she wanted her child to be able to return to in-person 4K if the district re-opened for in-person. When her child did go back for two full days, in-person 4K, this opened up sufficient time for all the other things that were part of her stay-at-home role.

It appears that ELLs received even less added support during COVID-19. Only six of fourteen Dane County 4K district administrators surveyed said their district established special procedures for ELLs. Only one teacher surveyed said their school put in place special procedures for ELLs in Spring 2020. Eight teachers said they put special procedures in place for ELLs in Fall 2020. Just as with students with special needs, remote 4K teachers were much more likely to say their school/center had special procedures in place for ELLs in Fall 2020.

Figure 3. Percent of Dane County 4K Teachers Implementing Special Procedures for ELLs in Fall 2020

N=59
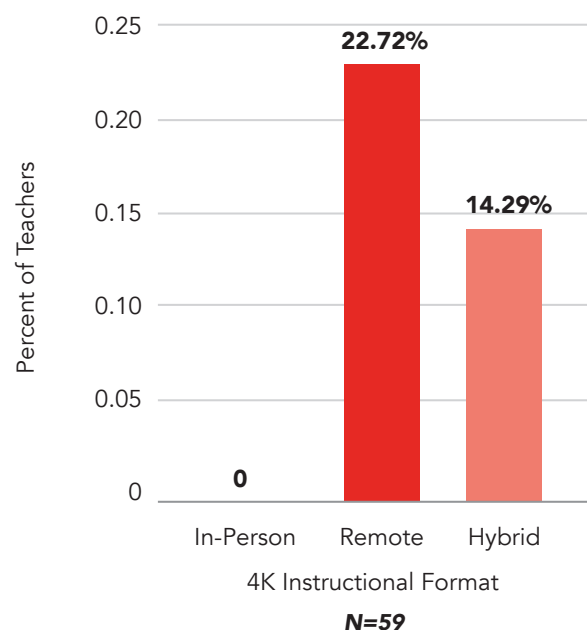
IV. SILVER LININGS OF THE COVID-19 PANDEMIC IN DANE COUNTY

Although district administrators, teachers, and parents experienced COVID-19 as a challenge, some silver linings emerged. In this section, we note positive things both parents and teachers reported to highlight some lessons learned and practices that might be important to continue.

Some Teachers and Parents Forged Strong Lines of Communication

Remote learning led to adoption of different learning platforms, such as Seesaw, across school districts. New ways to communicate also emerged and in some cases enhanced the communication between teachers and families. Families played a larger role in facilitating children's learning, and teachers were often positioned as coaches and mentors to parents, helping parents think about how to motivate their child and engage them in lessons. As a result, teachers often received more personal forms of communication from families, such as photos and text messages. One teacher told us:

> [P]arents were really communicating with me. I had a lot of families taking pictures because I'd say, "Send me some pictures. I miss you guys." Parents responded to that. If I had two or three little kids and all of a sudden, I was home with them and I maybe lost my job, all of those things that are happening for a parent to actually think about sending the teacher [a] picture … that they would even take the time to do that. So I thought that it was pretty awesome that parents were connecting with me, asking questions, and consulting me about what they thought, and what they should do, or what they thought their kids needed before the end of the year (Stoughton, child care, teacher).

Teachers used Zoom to meet with families and students, allowing teachers to know more about their students and families. A teacher from Middleton-Cross Plains said that meeting virtually with students and families who typically were at home was a "big window into their life." She could not only see where their students come from, but also see what resources, skills, cultural values the child would bring to their class. Another teacher from the same district wished she could meet with families through Zoom, especially with new families at the beginning of the school year, to better understand her students and families.

Remote learning and social distancing shifted parent-teacher conferences online. Many working parents favored this format over in-person conferences because it made participation easier.

They hoped the district would keep the virtual conferences even after the pandemic. One working parent from an urban school district shared:

> Having this whole virtual portal of things has really been beneficial to me. [Meetings don't] really have to be at school because we can do virtual IEP [individualized education program] meetings. I don't have to physically leave work. I can sit in my car and do an IEP meeting and walk back in. I really hope that those things stick around as an option because they've been really helpful and we can still have those quality conversations. And it's kind of in-person. We can still see each other's faces. We can still have a good conversation about things. We can even screen share and do all those things. So, I think that COVID-19 has opened up a bigger virtual opportunity for things in a positive way for our family (Madison, school-based, parent).

For all the strain induced by parenting and teaching during a pandemic, its reliance on online meeting spaces may have shifted some long-held practice that put some parents at a disadvantage.

Some Students Made Strong Connections with their Peers

Although most parents thought that in-person 4K was a better venue for children to make social connections, some parents mentioned the social opportunities that their child made in virtual 4K. According to one parent:

> She actually made a little best friend through Zoom, which was amazing to me. She'd be like, "Oh, I really hope it's going to be here today." And then they'd like to be in a breakout room together and just be "boo boo boo boo." So, that was really cool. I didn't think that would happen. And so, especially

socialization pieces. It actually happened in a way (Sun Prairie, child care, parent).

Though no one probably predicted that Zoom would provide social-emotional learning in 4K, a savvy teacher and open students made the most of a bad situation.

Some Teachers Explored New Outdoor Teaching Methods

With the increased cleaning and social distancing in classrooms, teachers found new opportunities for children. Teachers spent more time outdoors. One teacher from a suburban district said she moved choice time outside, which opened a new world for children to fully use the outdoor space to run, play, and do activities. She considered designating an area for outdoor circle time. She was eager to learn more about outdoor education opportunities to enhance play opportunities for all children, especially children from lower socioeconomic backgrounds, children with special needs, and children of color.

To reduce the amount of cleaning time another teacher from a suburban school district spent more time outdoors. She felt her teaching and the curriculum were more connected with the outdoor environment.

> It's a lot more nature-based now. I spend a lot more time just noticing things outside and helping them, and be more in tune like using our senses more and looking at plants and bugs more and so that's been a benefit I think (Stoughton, child care, teacher).

In an example of "don't let an emergency go to waste" some teachers expanded the walls of the classroom to include the outdoors, finding that a variety of benefits resulted.

More Time to Plan Lessons While Teaching Remotely

Teachers felt that they worked beyond their contract hours helping their students and families; however, because they were teaching from home, they did not have to commute to school. Some teachers said that one day each week of asynchronous instruction allowed them to plan or attend professional development. A teacher described how having Wednesday as a planning day was helpful because all staff participated. She also shared:

> [O]n Wednesdays, we have team meetings, and we meet for an hour and we get to talk about our standards or in our district.… [A]nd so we map out our month, the things that we're really going to focus on, and then we plan activities around that and so it's theme-based, but planned around like the standards that we're going to be working on. At our team meeting our specialists are also there. [T]hat's been another super positive change this year, because people actually have the time in their schedule on a Wednesday to be able to come to the team meetings. And so it's not just the 4k teachers, but our assistants are there. That's amazing. There are our early childhood special education teachers, the speech and language pathologist, and ELL teacher. Everybody is there. It's so great and so it's nice just being able to really focus on those and then be thinking of activities (Monona, school-based, teacher).

While many professionals reported isolation during COVID, some teachers found ways to consult and collaborate, building professional communities and sharing resources.

V. CONCLUSION

This report described how COVID-19 impacted 4K programming in Dane County across two key areas: (1) instructional formats and (2) resources teachers and families received to support teaching and learning. We also described how, despite many challenges COVID-19 presented, teachers and families experienced some positive outcomes. Several key findings stand out.

Despite a statewide lockdown in Spring 2020, Dane County districts continued to find ways to deliver 4K instruction. However, this instruction was severely limited. In Dane county, teachers offered synchronous lessons, yet very few said they had special procedures in place for ELLs and special education students, resulting in these children not receiving many of the services they need to succeed.

The 2020–21 school year brought some improvements and many new challenges. Teachers and parents did not learn about whether school would be virtual or in-person until late August, leaving them little time to plan and prepare. The exceptions to this were parents who already had children in child care centers and thus knew earlier whether or not they would have care. In Dane county, most districts offered a hybrid model, with both remote and in-person instruction offered. The experiences teachers had in these different settings varied. Teachers in-person were more likely than remote teachers to be absent and say they felt additional stress. Parents' experiences also varied. Some were grateful to have their children in remote 4K, while others felt that they should be in person. Some parents, particularly those with jobs that required them to be in person, struggled with their increased responsibilities over their children's learning. In some cases, parents, often the mother, left the workforce altogether to manage children's learning.

Dane County districts worked hard to provide resources to support teachers and families. Teachers received more support to talk to families about COVID-19 and, for those teaching in person, protecting themselves through masks and sanitizing spray, but they received less support with adapting curriculum to new environments. The responsibility to adapt curriculum fell to teachers. Teachers also reported receiving the least support around issues such as access to food or other basic needs for themselves. The amount

of support teachers reported receiving increased from Spring 2020 to Fall 2020. Overall, school-based 4K teachers reported receiving more support than teachers in child care or Head Start settings. Conversely, district support to families in both Spring 2020 and Fall 2020 focused more heavily on basic needs, such as food, over learning-specific needs, such as books and computers/tablets. Whereas district support to teachers rose from Spring to Fall 2020, district support to families declined during that same period, with the exception of provision of technology, which went up in Fall 2020.

Finally, as teachers and parents adapted to the COVID-19 crisis, they experienced unexpected positive outcomes. In some cases, parent-teacher relationships deepened. This seemed to be due to factors such as the advent of new communication technologies such as Seesaw and Zoom, increased responsibilities parents had for their child's education, and a deeper appreciation for the work of 4K teachers. How to sustain these strengthened parent-teacher relationships after the pandemic subsides is an important goal for policy and practice. Also, we found that for some students, a virtual 4K option worked well, either as a fulltime option or for short periods when a student might need to be away from school. How schools, child care centers, and Head Start choose to maintain the virtual learning options they created during COVID-19, and balance the time and money this will require, will be an important issue to focus on in coming months. Finally, teachers experienced new opportunities—such as teaching outdoors and more time to lesson plan—that they hope will continue.

Appendix: Methodology Details on Surveys and Interviews

District Administrator Survey

Our survey of district 4K administrators provides a window into a single grade and the way districts adapted policies and programs as the COVID-19 pandemic unfolded in Spring 2020 and into the 2020–2021 school year. The survey probed how administrators shifted the instructional and support environment surrounding teachers, students and families as a result of the pandemic. The survey was launched in December 2020 and remained open through March 2021. The survey was distributed by email to 427 4K administrators working in all 422 school districts that operate a 4K program Wisconsin using a contact list made available to our research team by the Wisconsin Department of Public Instruction. Weekly reminders were sent to 4K administrators that had not yet completed the survey, and $20 gift cards were sent by email after they completed the survey. The survey had 78 items and took respondents on average 19.8 minutes to complete. We received 183 completed surveys, amounting to a 42.9% response rate. As Figure 1 demonstrates, we received responses from every region of Wisconsin.

Figure 4. Map of School Districts Participating in 4k Administrator Survey

NOTE: Green = Survey received from district administrator; Red = No survey received from district administrator. District boundaries data retrieved from Wisconsin Department of Public Instruction Open Data Portal.
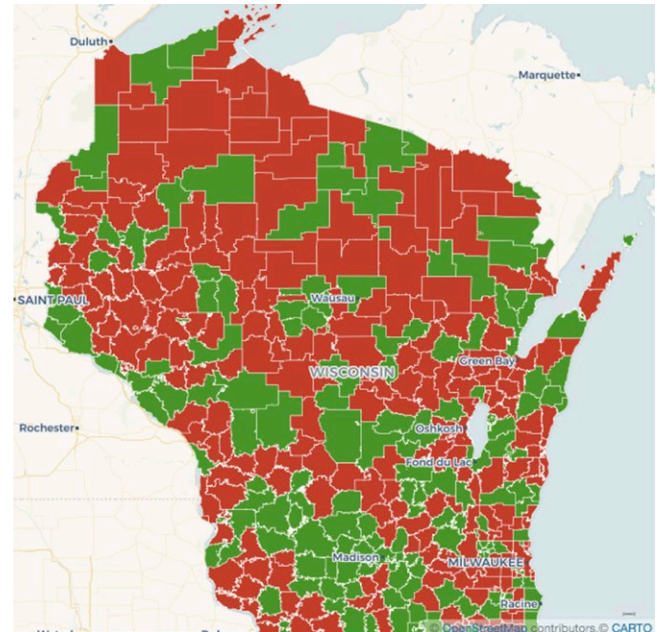
The survey focused on program provision across a range of program models. In Wisconsin, districts can operate 4K programs in public elementary schools, Head Start centers, child-care centers, or through a combination of these. As Table 9 shows, this sample distribution is similar to the real-word distribution of 4K models in Wisconsin districts.

Table 9. Administrator Survey Responses by 4K Model

District 4K Model	Survey Sample %	Population %
Public School	67.8	71.8%
Public School + Head Start	8.2%	5.7%
Community-Based Child Care Only	7.7%	2.8%
Combination	16.3%	19.7%
Head Start		0.2%
Total	100%	100%

Population Data Source: Wisconsin Department of Public Instruction, 2019–2020 School Year

Teacher Data

Our data collection with 4K teachers followed a nested sequential design. We first recruited Dane County districts to participate in the study by sending information to district superintendents, or through established district protocols for conducting external research. The study was approved by the UW–Madison Institutional Review Board and by each participating district individually. In total, eight Dane County districts joined the study: Cambridge, De Forest, Madison Metro, Middleton, Monona Grove, Mount Horeb, Stoughton, and Sun Prairie. After receiving approval, we distributed a survey to all 4K teachers in each of the eight sample districts, using teacher contacts provided by the district administrators. We sent $20 by email to teachers after they completed the survey. We then invited each of these teachers to participate in an hour-long Zoom interview with a member of our research team. Teachers who participated in Zoom interviews received $50 compensation. In total, 59 teachers completed the survey, and 25 agreed to be interviewed. Once collected, we analyzed survey data using StataSE v. 11 and interview data using MaxQDA.

The eight sample districts in Dane County represent a mix of urban, rural, and suburban districts that also offer 4K programming through a range of models (e.g., public elementary schools and/or community-based childcare centers).

Table 10. Dane County Sample Districts by Census Geographical Definition

City	Suburb	Town
MMSD	Deforest Middleton Monona Grove Stoughton Sun Prairie	Cambridge Mount Horeb

Table 11. Dane County Sample Districts by 4K Model

School-based	Community-based	Combination (school, community and Head Start)
Cambridge	De Forest Mount Horeb Stoughton	Middleton MMSD Monona Grove Sun Prairie

The average age of teachers who completed a survey was 41. Every teacher surveyed identified as female, and 90% identified as White. Table 12 shows the breakdown of teacher survey respondents by identified race.

Table 12. Teacher Survey Sample by Race

	Frequency	Percent
Asian/Pacific Islander	2	3%
Hispanic/Latino/a/x	1	2%
Prefer not to say	2	3%
White	53	90%
Native American	1	2%
Total	**59**	**100%**

We oversampled 4K teacher interviews in Madison, given the disproportionate number of 4K teachers in Madison as compared to the other sample districts.

Table 13. Teacher Interview Sample, by District

District	Frequency	Percent
Cambridge	2	8%
De Forest	2	8%
Middleton	4	16%
MMSD	10	40%
Monona Grove	1	4%
Mount Horeb	2	8%
Stoughton	2	8%
Sun Prairie	2	8%
Total	**25**	**100%**

Parent Data

Parents were recruited to the study through an Information Sheet provided by CRECE and disseminated by the school district 4K program administrator to parents in both Spanish or English. Parents interested in participating in the study then contacted our research team directly. In total 126 parents expressed an interest in being interviewed and we were able to interview 61 in total.

Table 14. Parent Interview Sample, by District

District	Frequency	Percent
Cambridge	2	3.28%
De Forest	11	18.03%
Middleton	11	18.03%
MMSD	15	24.59%
Monona Grove	12	19.67%
Mount Horeb	9	14.75%
Stoughton	0	0%
Sun Prairie	1	1.64%
Total	**61**	**100%**

NOTE: Stoughton did not disseminate study information to 4K parents

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