

# **Family Income Status in Early Childhood and Implications for Remote Learning**

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The Coronavirus Pandemic has highlighted and exacerbated educational inequalities, particularly among families of low-income status. As schools switched to remote learning, the digital divide among affluent and non-affluent families has shined a light on the existing inequality in resources like never seen before. The digital divide is the income-related gap in access to modern day technology such as computers, internet, and cell phones (Vogels, 2021). Students receiving early intervention services (services provided through Part C of the Individuals with Disabilities Education Act, 2004) and/or those attending preschool, were seemingly left behind as school districts focused their efforts on supplying technological devices and internet to students in K-12. Addressing this growing digital divide is critical as the CDC notes that early childhood education programs “play critical roles in promoting equity in learning, care, and health, particularly for groups disproportionately affected by COVID-19” (Centers for Disease Control and Prevention, n.d.).

Currently, children and families of low-income status are facing new barriers to learning. The pre-pandemic access challenges that had been typically linked to parents’ transportation obstacles have now been extended to include technological access barriers to school access and instructional time during this time of remote learning. Due to this growing gap in access, students of low-income status are disproportionately affected which may cause them to lose out on opportunities for meaningful academic growth. A snapshot from an early intervention center that serves students of low-income status, underscores the impacts that remote learning and the lack of access to technology had on young children’s attendance rates and further, their language development. The lack of access to technology or having to share devices with siblings caused these students to miss out on critical instructional time.

## **SNAPSHOT FROM AN EARLY INTERVENTION CENTER CLASSROOM**

During the outset of the pandemic, I had the opportunity to observe the challenges faced by families and teachers in an early intervention center classroom in an urban city. I was able to see first-hand the effects that remote learning and the lack of access to technology had on children. In the school district where this program is located, initially, one device per household (not per student) was provided for all families in grades K-12 who needed one. Students receiving early intervention did not receive devices from the district despite also having to transition to remote learning. Lack of resources in large school districts with areas of low socio-economic status has been an ongoing issue (Hudley, 2013). This, coupled with the fact that school districts across the United States had to scramble to supply devices to students, causing a shortage in devices,

further limiting the number of laptops and tablets that schools could give out to students at the beginning of the pandemic.

In this early intervention program that serves 25 children, I found that the lack of access to a computer or device and limited internet access was a major obstacle for the families of children in this program. It was especially challenging for families with multiple children, as parents had to make a choice regarding whom would be prioritized for remote learning. If a family had a child in preschool as well as middle school, then it was more likely that the middle schooler was given access to the device than the preschooler since in K-12 students were required to log in and were graded on their performance, unlike in preschool. The priority was given to students who had to log on to learn material in order to do well on homework and testing. Additionally, I noticed that students participated in remote learning mostly via a guardian's cell phone. Internet access was limited for some families, and it was not financially feasible for families of low-income status to use their cell phone data to participate in remote learning if they did not have access to Wi-Fi at home and it was not provided by the school district or local community.

There was a noticeable difference in the on-line attendance rates of students with older siblings and students without older siblings. As observed over a two-week period, the attendance rates among students without older siblings at home was double that of their classmates with older siblings at home. Students with older siblings at home only attended school on-line 30% of the time. Their classmates who did not have older siblings at home attended school on-line 62% of the time. In turn, this had an impact on students' language development. Time interval observations of expressive and receptive language were also collected over this two-week period. The students who were present 30% of the time, only made 8.3% in gains. This is compared to the students who attended 62% of the time, who made 30% in gains. I found that the students who did not have older siblings at home and were able to attend more frequently made substantially greater academic gains in expressive and receptive language.

It was a challenge for families with multiple children to manage distance learning, especially with limited devices at home as well as limited internet access. During the time of the pandemic, families that usually might rely on going to the library, or another public building, for internet access or computer use, didn't have that option since they were closed. This resulted in gaps in learning gains for the students in this early intervention program.

### **LOWER INCOME STATUS, DECREASED ACCESS**

The deficiencies noted above are symptomatic of the broader lack of resources that can limit family involvement, classroom interaction and attendance. According to the CDC, "many low-income families do not have the capacity to facilitate distance learning (e.g. limited or no computer access, limited or no internet access), and may have to rely on school-based services that support their child's academic success" (Centers for Disease Control and Prevention, 2020).

For example, children could be marked absent if they do not have a device and internet with which to log into class. Even before the pandemic, most school aged children were becoming increasingly dependent upon access to technology at home to complete classwork and homework. Trying to attend class or to complete schoolwork on a smartphone presents additional challenges. If a student is unable to participate in remote learning due to lack of access to devices and/or internet, the rate of chronic absenteeism is likely to continue or even to increase. Absenteeism, whether in person or through remote learning, is related to loss of learning because of the loss of access to instructional time. Access to instructional time is critical for the most vulnerable students served by Individualized Family Service Plans or Individualized Educational Plans.

The relationship between families of low-income status and chronic absenteeism is complex and varies based on several factors. A study by Ready (2010), looked at the impact of school absenteeism on academic social class differences in early childhood education and found that disadvantaged children are more likely to be chronically absent from school. This has a devastating effect on the student because formal education matters more to children of low-income than those that are not low-income (Ready, 2010, p. 272). Children from families of low-income status are more likely to change schools during the school year which not only hinders their cognitive development but also adversely affects their school attendance. Ready's study also found that during the summer months when there is no school, "cognitive disparities widen further between disadvantaged children and their more affluent peers" (Ready, 2010, p. 281).

Not only do children living in poverty miss more school than their affluent peers but they also have less access to resources to help make up for the lost time in school (Connolly & Olson, 2012, p.1). This has been magnified during the transition to remote learning and exacerbated by the digital divide. Children from affluent families have more access to summer learning, summer camps and tutors to maintain their learning over the summer. This further illustrates the need for access to school year formal education for students from low-income households and also underscores why it is so important that students do not miss out on instructional time whether via remote learning or in class.

### **DECREASED ACCESS, LOWER SCHOOL PERFORMANCE**

During this shift to remote learning, families from low-income status faced new barriers to learning. As noted, the lack of technology among families of low-income status is an issue that was brought to the forefront by the pandemic. Not only can absenteeism from remote learning and the subsequent loss of instruction time have an effect on school performance in the early years, but it can have long-term consequences as well, especially if absenteeism continues into later grades. A study by Connolly and Olsen (2012) looked at student's attendance rates in preschool. They continued to track the students through later grades to determine if preschool attendance was able to predict chronic absenteeism in later grades. Connolly and Olsen found that not only were children who miss more than 10% of the school year in preschool more likely

to be chronically absent throughout elementary school but also there were impacts on learning. Preschoolers who miss more than 10% of school days are more likely to perform poorly in certain academic peers when compared to peers who attended school regularly. This same study revealed that preschool chronic absenteeism was a key factor in students scoring lower on academic tests than their peers up until the end of second grade.

Fuhs et al. (2018) looked at the effects of chronic absenteeism on the school performance of 197 preschool students in a variety of preschool settings. The goal of the study was to determine the effects of chronic absenteeism on children's executive functioning skills including working memory, inhibitory control and attention shifting. The study found that children who were chronically absent made fewer gains in their executive functioning skills from the fall to spring during their preschool year. Further, neighborhood poverty, chronic absenteeism and overall attendance were shown to be related because children living in poverty were more likely to be absent from school.

Ansari and Purtell (2018) looked at the relationship between absenteeism and its' effect on their academic learning of Head Start students. There were 2,842 children that participated in the study across numerous Head Start Classrooms. The student's language skills were assessed in the Fall of 2009 and Spring of 2010 using a variety of tests which include the Peabody Picture Vocabulary Test, Woodcock Johnson Test, and Preschool Language Assessment Survey. The study found that "the effect sizes for chronic absenteeism translate to roughly two (math) to three (literacy) months of lost academic skill gains" (p. 7). The authors noted the importance of studying preschool attendance among students of low-income status. The authors state that, "a number of studies on Head Start have revealed that children who start school with a less developed skill set benefit more from preschool than children with a more developed skill set" (p. 2). Further, at-risk children benefit the most from attending preschool and that by missing school, students who started the school year with the lowest skill level will have fewer opportunities to make up ground.

## **RECOMMENDATIONS FOR INCREASING DISTANCE LEARNING ACCESS AND ATTENDANCE**

It is likely, given the shift to distance learning due to the Coronavirus Pandemic, that the education landscape has changed. At a minimum, the combination of in-school and remote learning together will likely only continue. In fact, many in the Northeast, have jokingly said goodbye to snow days. It's also evident that many families of low-income status were disproportionately impacted by the shift to remote learning exacerbating many challenges already faced by these families. This online shift also worsened the trend towards chronic absenteeism, particularly among preschoolers and families of low-income status. This is important because chronic absenteeism has been shown to adversely affect student learning

resulting in lagging developmental gains. These learning deficits tend to stay with children during the school year and as they move through school. Moving forward, a range of interventions will need to be implemented to “catch-up” these students while at the same time paving the way to greater success with future hybrid learning. Some considerations for mitigating the impact of the digital divide on already vulnerable young students is provided below.

1. **Device Ratio:** Many school districts have worked to ensure that students have digital access by providing each family with a wireless internet modem and/or a tablet. While this is a step in the right direction, if a family has three children and only one device is provided per household, the family cannot be expected to share one device when the children need to be “in school” for several hours a day. If remote learning is expected to be successful, devices and internet access need to be provided for every child.
2. **Internet Access:** Communities of low-income status may be affected disproportionality by remote learning and if we expect students to attend school, we need to bridge the gap between families from low-income status and affluent students’ access. While providing modems and WIFI hot spots is a great start, it is just a band-aid. Broadband internet needs to be widely available for free or low cost in all communities, but specifically communities of low-income.
3. **Learning Centers:** One solution for families of low-income status or families who do not have the ability to work from home is the implementation of learning centers within school districts. Some school districts have implemented centers that would allow for very small numbers of students to go into school and receive support from staff to help guide them through remote learning. Harford County Public Schools in Maryland welcomed 5% of students into learning centers during the Pandemic spread out across schools within the district (HCPSchools, 2020). Within the learning centers, students have access to support staff, internet, and meals.
4. **Learning Interventions:** At the district level, district leaders need to develop learning plans to address anticipated academic learning losses. School leadership needs to be given the resources (specialists, interventionists, paraprofessionals, support material) for them to implement these plans so that support can be given to those students who may have regressed.
5. **Family/Teacher Collaboration:** Effective preschool remote learning requires teamwork between teachers and parents. Now more than ever, teachers need to make sure to that parents are familiar with their expectations, goals and how to best facilitate learning at home. Parents, specifically those of preschoolers, need to be

educated by teachers on the negative effect that school absenteeism can have on young children especially as it affects gains later in life.

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