North Carolina's Digital Divide

The coronavirus pandemic has highlighted an already pressing issue in North Carolina – the huge digital divide that pervades our state. For those unfamiliar with the digital divide, Merriam-Webster defines it as "The economic, educational, and social inequalities between those who have computers and online access and those who do not." Households that are often most affected by this divide include rural households, low-income households, and Black and Hispanic households. Over one-sixth devices needed to learn remotely. Given that many schools in North Carolina are starting the school year with remote learning due to the COVID-19 pandemic, addressing the digital divide is more important than ever.

COVID-19 has certainly changed the 2020-2021 school year for students across North Carolina. Approximately 1.1 million K-12 students in North Carolina are estimated to engage in fully remote or blended learning this school year. Remote learning not only requires access to a computer at home, but also a reliable high-speed internet connection that allows students to video stream with their teachers and classmates. Reliable high-speed internet connection can be difficult to obtain, however. Currently, 24 percent of households across North Carolina don't have access to a reliable high-speed internet connection that allows for video streaming. Diving further into the numbers, a report by The Boston Consulting Group and Common Sense estimates that out of the 1.5 million K-12 students in North Carolina, 468,967 (30 percent) don't have a reliable internet connection suitable for remote learning and 355,304 (23percent) don't have adequate devices for remote learning. Educators are also affected by the digital divide. According to the Boston Consulting Group report, 10 percent of teachers don't have a reliable high-speed connection and 3 percent don't have a usable device for remote learning.

This digital divide varies significantly among different counties. In the Durham County School District, for example, 22.7 percent of households don't have access to high-speed internet that would allow students to participate in online instruction. Wake County, the state's largest school district, sees 13.7 percent of households without access to high-speed internet. Furthermore, in Durham County 5.7 percent of students are without access to computers, and in Wake County 3 percent of students are without access to computers. While these numbers are undoubtedly worrisome, they are not close to the disparities that appear in some counties. In Northampton and Halifax, for example, about 60 percent of households don't have access to high-speed internet and 20 percent do not have computers. For more information about specific counties, refer to this interactive map.

Rural households

Rural households are especially impacted by the digital divide. Rural Americans are 12 percent less likely to have a home broadband connection than the American population as a whole. Moreover, 24percent of rural adults say that access to high-speed internet is a "major problem" as opposed to 9 percent of urban adults. Of the students across the country who don't have a reliable high-speed internet connection, 37 percent of them live in rural communities. This is opposed to 21percent in urban communities and 25percent in suburban communities.

In North Carolina, this issue is even more pressing given the high number of rural students in our state. According to a report by Megan Lavalley, Center of Public Education, approximately 568,000 students in North Carolina are from rural areas, making up 39.4 percent of the total student body. North Carolina has the second highest rural student population in the country after Texas. Over 75,000 students in North

Carolina live in rural areas where internet providers have not even installed the lines needed for a high-speed internet connection. Even if households in these areas were able to afford a high-speed internet service, they would not have access to do so. Some rural communities also are not adequately covered by cell phone coverage, limiting the possibility to use smartphones to access the internet.

Low-income households

The digital divide is also significantly evident among low-income households, many of which are rural. A 2016 report conducted by Free Press, [Digital Denied,](#) reported that only 54 percent of households with annual income below $20,000 had internet access, as opposed to almost 90 percent of households with income over $100,000. Focusing more on the student population, over 30 percent of low-income students in the country do not have access to the technology needed for remote schooling to be a realistic option. In middle-income families, that figure is only at 7.6 percent. In North Carolina, over 33 percent of low-income households (below $30,000 annual income) with children between the ages of 6 and 17 do not have access to an adequate broadband connection. This is compared to just 6 percent of North Carolinian households that earn $75,000 or more annually.

It is important to note that low income households aren't exclusively from rural communities. While those in urban communities are more likely to have broadband providers in their areas, a significant portion of urban households can not afford to pay for the service. The North Carolina Department of Information Technology conducted a survey of those households without internet and found that 67 percent of households attributed cost as the primary reason they have not adopted high-speed internet.

Racial and ethnic groups

Black, Hispanic, LatinX, and Native American households are four segments of the population most affected by the digital divide. Nationally, approximately 82 percent of white adults own a computer. In stark contrast, 58 percent of Black adults and 57 percent Hispanic adults own a computer. Moreover, 79 percent of white adults have broadband access at home, compared to 66 percent of Black and 61percent Hispanic adults. Among students, 26 percent of LatinX students, 30 percent of Black students, and 35 percent of Native American students lack the necessary connectivity for remote learning. This is compared to just 18 percent of white students. When more 55 million students had to move to remote schooling this past spring, one out of every three Black, LatinX, and American Indian/Alaska Native households were not able to do so. This gap will further the growing inequities and opportunity gaps between students.

In North Carolina, Black, LatinX, and Native American households are over 10 percent less likely to have a broadband internet subscription than white or Asian households. According to an analysis of data from the [2018 Community Survey](#) conducted by the Alliance for Excellent Education, National Urban League, UnidosUS, and the National Indian Education Association, of the North Carolinian households without high-speed internet access, 30.6 percent are Black households, 36.6percent are Hispanic households, and 24.2percent are Native American households. In comparison, white households make up 19.1percent and Asian households make up 12.8 percent of the number of households without access.

Closing the gap

There are several strategies educators are using to address the digital divide in North Carolina. As of July 2020, Durham Public Schools had bought 20,000 computers through the Cares ACT federal fund for the fall school year. Educators are also using school buses equipped with Wi-Fi to reach students across the state, particularly those in rural households. Some companies have helped as well such as Charter Communications offered free internet for 60 days in some communities.

Grants are also being utilized to attack this challenge. North Carolina State University's Institute for Emerging Issues has created a grant program called Building a New Digital Economy (BAND-NC). The BAND-NC program is estimated to provide at least $300,000 worth of funding, with 30 grants of a $5,000 value in 2020 and the rest of the funding coming in spring 2021. As of August 18, IEI had awarded $5,000 to 6 projects in 11 counties to help address the digital divide.

On August 19, Governor Roy Cooper and the NC Department of Information Technology's Broadband Infrastructure Office announced that $12 million worth of grants were awarded to projects that will help to expand high-speed internet in 11 rural counties. The $12 million came from the 2019-2020 Growing Rural Economies with Access to Technology (GREAT) grant and COVID-19 Recovery ACT funding. It is anticipated that these grants will help connect 8,017 families to high-speed internet, as well as 254 farms, businesses, and community institutions.

While COVID-19 has highlighted the growing digital divide that permeates our state, digital inequality has been a massive issue in North Carolina far before the pandemic. While some may view internet access as a luxury, a reliable high-speed connection is becoming more and more essential in a technology-driven world. Prior to COVID-19, the digital divide had created what FCC Commissioner Jessica Rosenworcel has termed the "homework gap." This homework gap occurs when students are assigned homework that requires internet access, but they do not have the requisite technology to do so. According to the 2018 Teacher Working Conditions survey, 70 percent of high school teachers, 60 percent of middle school teachers, and 43 percent of elementary school teachers in North Carolina often give assignments that students must use the internet to complete. Todd Silberman, a spokesman for the North Carolina Department of Public Instruction, explains, "What this pandemic has done is revealed the true nature of the struggle that's been going on for decades." When the General Assembly returns in January, it will be crucial that public school supporters advocate for adequate funding to help close the digital divide. All children in North Carolina deserve the opportunity to reach their full potential.

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