Digital Equity for K-12 Students

By Stephanie Holcomb, Jessica Cruz-Nagoski, Andrea Hetling, Gregory Porumbescu, Vishal Trehan

The COVID-19 pandemic highlighted the important role efforts to promote digital access, literacy, and skills play in promoting a fairer and more equitable society. This lesson is perhaps most apparent for education, where many of the nation's children and educators were forced into virtual schooling on short notice and with inadequate digital resources, such as tablet computers and high-speed internet access. Acknowledging these gaps in access, many states took aggressive measures to address the digital divide for K-12 students – ensuring those who were learning from home had the necessary tools to do so. The newly passed $1.2 trillion federal infrastructure bill is a lifeline to state and local governments previously administering short-term solutions to address digital equity during the pandemic, because it provides funding opportunities that will ensure that innovative initiatives are continued far into the future.

State responses to addressing digital access and equity prior to and during the pandemic took several approaches, from addressing immediate needs of students, to developing long-term broadband solutions. New Jersey, for example, provided Wi-Fi hot spots and devices to K-12 students who reported not having access to them at home. Following these efforts, in March 2021, the state announced that it had closed the digital divide among K-12 students as a result of these ambitious initiatives. Many other states implemented similar programs, addressing immediate needs exposed by the pandemic. Did these efforts really succeed in closing the digital divide?

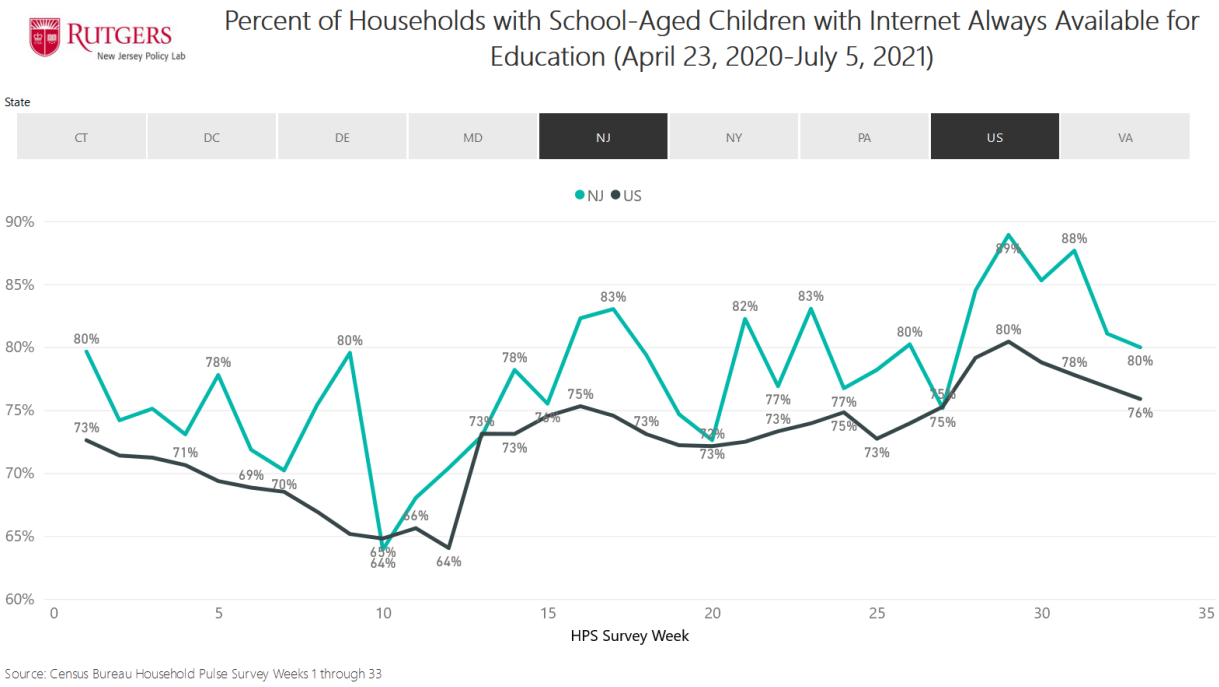
The National Governor's Association released an overview of different state policy initiatives during the pandemic to address the digital divide. Their assessment suggested the following measures were particularly impactful:

- Partnering with internet service providers to provide free or reduced cost access;
- Creating mobile hotspots in underserved areas;
- Coordinating with nonprofits and other organizations to ensure students can access devices; and
- Developing long-term broadband connectivity in underserved areas.

Despite success in addressing the digital divide, an additional stream of data, from the US Census Bureau's Household Pulse Survey, suggests states may be overly optimistic about the extent to which they have succeeded in eliminating the digital divide. While the figures suggest measures taken by states to address the K-12 digital divide were helpful, important gaps in access remain.

The dashboard below shows the proportion of households with children enrolled in school grades K-12 who indicated that they always have access to internet or computers, and the proportion whose devices or internet are supplied by their school district for New Jersey, its

neighboring states, and the national average. While access increased over the course of the pandemic, we are still below 100% access for households with school-aged children. In addition, while many schools are providing students with devices, few indicate that they have access to internet through their districts, indicating that providing computers is not sufficient to ensure access.



Equitable access to internet and devices was another persistent concern; in the last week where the question was asked (week 33 – ending July 5, 2021), the proportion of households with school-aged children reporting they always had access to internet or devices varied by characteristics. Those who reported always having access to computers or digital devices ranged from 72% of Hispanic respondents to 84% of Asian respondents, and 61% of those with household incomes between $25,000 and $35,000 to 92% of those with household incomes of $200,000 or more. Similarly, the proportion of those who always had internet access ranged from 68% of respondents of multiple races to 87% of Asian respondents, and 59% of those in the lowest household income category to 95% of those in the highest.

Despite the efforts states have made throughout the pandemic to address the digital divide, there is little data to suggest that the digital divide among K-12 students has been eliminated. One reason for this may be temporary solutions to deeper social issues; a device and hot spot issued in one year does not permanently address policy problems as complex as the digital divide. Another may be our ability to identify those in need. New Jersey's assessment of its digital divide and the Household Pulse Survey's measure of those without constant access differ, likely due to their methods of measuring the problem. New Jersey's measurement method relied on surveys sent to each local education agency, for which they received a 100% response rate. While their response rate is impressive, the method of reporting may be flawed

due to the need for students to self-report and fluctuations in family economic situations. Past studies have shown how the F.C.C. may overestimate access to internet, noting discrepancies between federal statistics which overstate coverage.

The federal infrastructure bill that was recently signed into law addresses this issue on a much larger, more permanent scale. The law includes $65 billion to expand broadband access across the country, elevating digital access to its rightful basic utility status. Indeed, the designation of broadband as essential as running water and electricity to "full participation in modern life in the United States" is a major shift in the fight to close the digital divide. Given the role internet and digital devices play in our daily lives – from finding and maintaining employment, ordering essentials, completing education – the designation and investment as a basic necessity for full participation is critical. The law goes beyond improving digital access to focus on digital equity, acknowledging the racial disparities in access and the subsequent ramifications on education and employment. Hernán Galperin, Associate Professor at USC Annenberg, explored the initiatives this law will set forth, and highlighted this important inclusion of broadband as an essential public investment to ensure affordable internet for all. Finally, the new infrastructure package includes $2.75 billion to states under the Digital Equity Act, which promotes and funds necessary initiatives such as digital literacy education and improving online accessibility for social services.

Nevertheless, as with many other government programs, achieving the goals envisioned by this law will depend on implementation. Studies examining the experience of countries such as Australia and India in implementing national-level broadband programs suggest that execution is challenging, and such programs can potentially reinforce social inequities. For example, researchers found that implementation of Australia's program had poorer infrastructure in areas of existing greater socioeconomic disadvantage.

These initiatives funded by the law have the potential to ensure that digital access is no longer piecemeal and is the focus of sweeping federal programming rather than siloed efforts. Unprecedented acknowledgement and subsequent funding of broadband as a necessary component of our societal infrastructure is an important step toward digital equity for all. Just as it is necessary to maintain the streets and trains we take to work and school, so too will it be critical to ensure the maintenance of full and equitable digital access going forward.