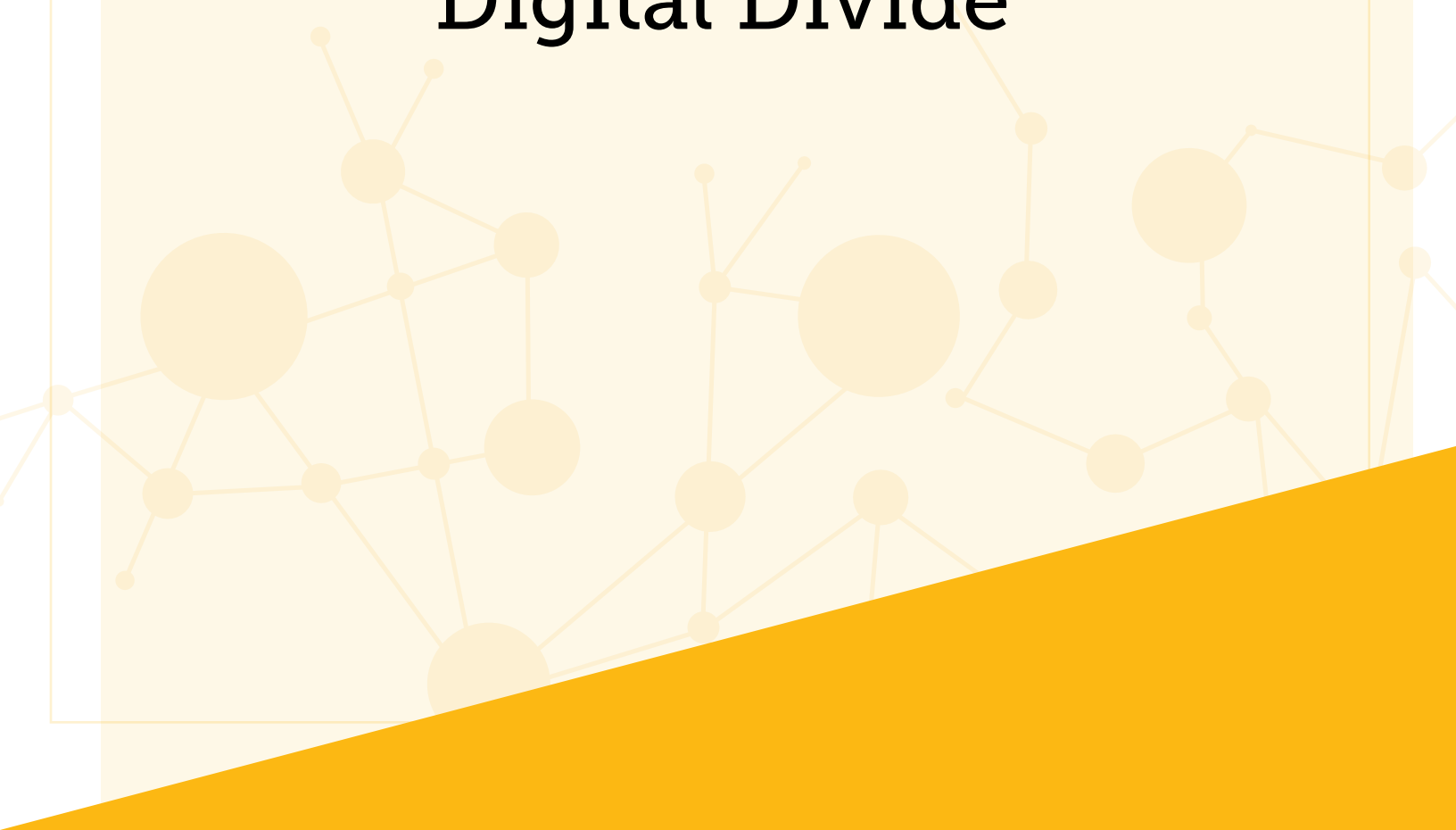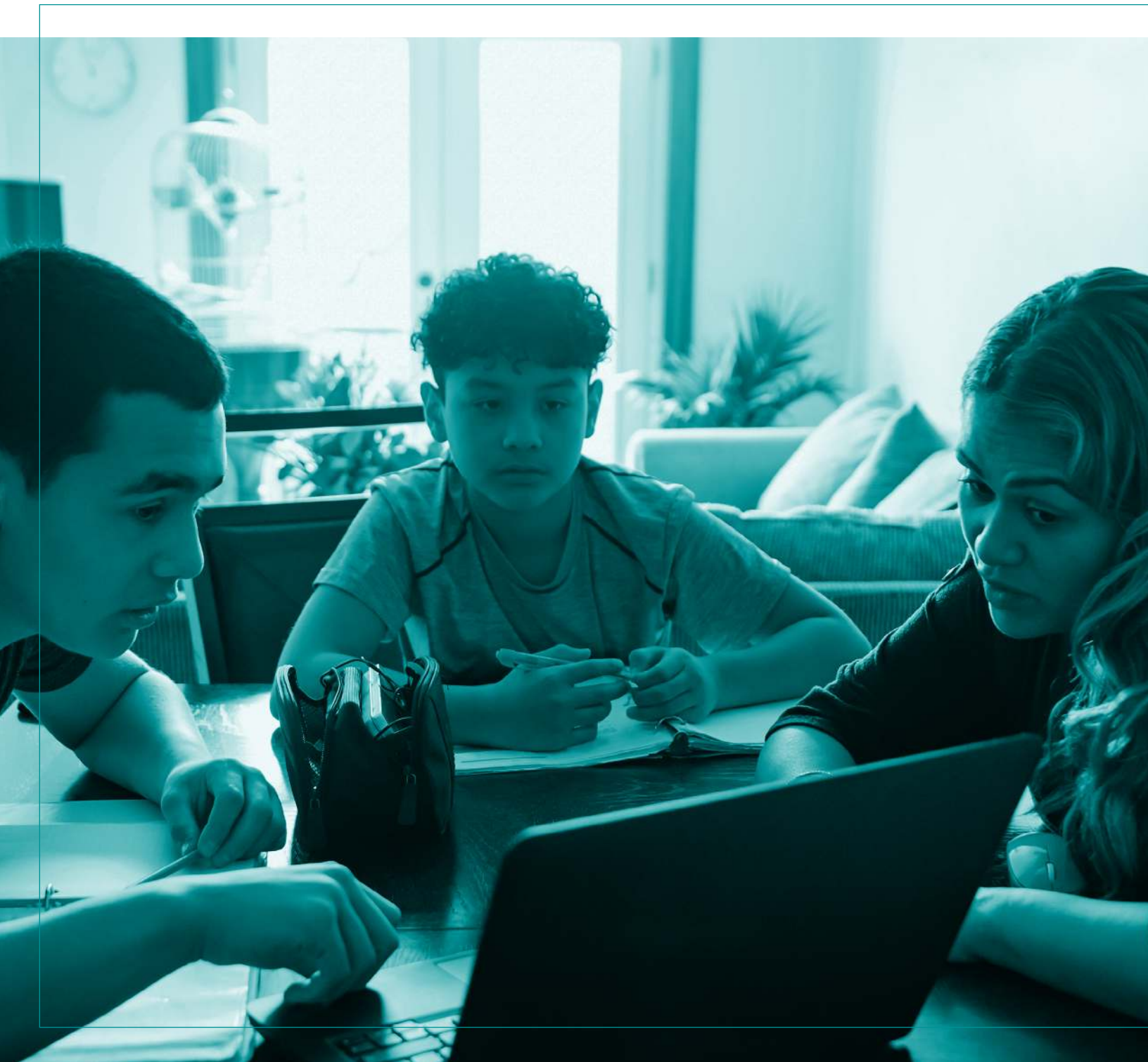**Education SUPERHIGHWAY**

ConnectALL

A Historic Opportunity to Close America's Digital Divide

Closing the digital divide can be a signature accomplishment of the Biden administration's first term.

It delivers on a key element of the campaign's Build Back Better jobs and economic recovery plan, helps overcome the impact of the pandemic for America's most at-risk communities, addresses one of the most pressing Civil Rights issues of our time[1], and fights climate change. Moreover, there is a clear strategy for delivering on this commitment starting in year one based on the bi-partisan approach used to connect 99% of America's schools to high-speed broadband during the Obama administration.

Closing the digital divide is critical to Building Back Better. If we are going to create an economy where every American enjoys an equal chance to get ahead, every American needs high-speed broadband at home. As the pandemic has made clear, citizens are shut out from the good jobs of the digital economy and the promise of educational opportunity without home broadband. No technology policy will do more to give America's working families the tools, choices, and freedom they need to find good jobs, educate their kids, access healthcare, and be a part of the 21st-century economy.

Closing the digital divide is critical to beating COVID-19. If we are going to safely reopen the economy, our K-12 schools, and our healthcare system, every American needs high-speed broadband at home.

> When America's workers have the Internet they need to work remotely, the economy has the flexibility to open safely.
>
> When America's students have the Internet access they need to learn remotely, our schools have the flexibility to open safely.
>
> And when all Americans have the broadband they need to access healthcare remotely, our healthcare system has the flexibility to provide critical care to our seniors and others safely.

No technology policy will do more to beat COVID-19 and help all Americans thrive during the pandemic than closing the digital divide.

Closing the digital divide is critical to advancing racial equity. Black, Latinx, and Native American households are 45-90% more likely to be without high-speed home broadband[2]. If we want to advance racial equity across the economy, make real the promise of educational opportunity regardless of zip code, and improve health outcomes for these communities, we must start by making sure that every American has high-speed Internet at home.

Closing the digital divide is critical to fighting climate change. Ubiquitous access to high-speed broadband can help America reduce overall net electricity demand by more than 25 percent. It can cut greenhouse gas emissions by 19 percent, save billions on energy bills, help make America more energy independent, and enable a smarter electric grid that is more efficient, reliable, and resilient[3].

The primary obstacle to closing the digital divide is affordability, not infrastructure. While most policy has focused on bringing broadband to those with no options, the lack of infrastructure only impacts approximately 12 million of the 28.9 million homes without high-speed broadband. In contrast, nearly 17 million households simply cannot afford to buy the broadband connections that are available to them today[4]. Moreover, the affordability challenge disproportionately impacts Black and Brown communities.

---

1. President of the NAACP Legal Defense & Educational Fund, Commissioner Starks and Jesse Jackson, CEO of the Consortium for School Networking.
2. U.S. CONGRESS JOINT ECONOMIC COMMITTEE, Sept 2017
3. Benton Foundation
4. NCTA analysis on broadband availability and recent analysis on broadband subscribers.

Education SUPERHIGHWAY

Internet service providers are stepping forward to provide the data needed to close the digital divide. For the last ten years, policymakers have made shockingly little progress[5] in connecting all Americans to high-speed broadband. Without the data to identify which households lacked broadband access and which cannot afford to subscribe, it has been nearly impossible to develop an effective strategy and obtain the funding to close the digital divide. Catalyzed by the pandemic, ISPs have agreed to provide this information for the vast majority of K-12 students and potentially scale this model to all households[6].

Armed with this data and sufficient federal funding, states, counties, and cities can aggregate procurement to close the digital divide. The pandemic has shown that the fastest and most cost-effective way to connect households is through aggregated procurement. We must relieve families of the burden of broadband procurement if we want to reduce costs and accelerate adoption among those who cannot afford Internet access.

The Biden administration can make immediate progress against the digital divide by leveraging unused E-rate funding. An estimated 7.5 million of the 28.9 million households without home broadband have school-age children[7]. By appointing an FCC Chairman who will make home broadband connections an eligible service under the E-rate program, the Biden administration could immediately make nearly $1 billion of annual unused E-rate funds available, removing affordability as a barrier to connecting these 7.5 million homes and closing the digital divide for the vast majority of America's K-12 students.

The E-rate program provides the model for new legislation to close the digital divide for all Americans. When the Obama administration modernized the E-rate program in 2014, it enabled the closing of the K-12 digital divide in just four years[8]. New legislation to close the digital divide for all Americans should emulate the E-rate program by providing:

- $6 billion per year of subsidies to states, counties, or cities to pay for Internet connections that meet the FCC's broadband standard. To reduce costs and accelerate adoption, states, counties, or cities would be the buyers of home broadband connections for any eligible household. They would be required to put up a 10% match to ensure that only those truly in need receive service under the program.

- A multi-billion dollar federal auction and block grant program for states to pay for the construction of broadband infrastructure to those who do not have access to a connection that meets the FCC standard. The amount of the program would be based on data from the Broadband DATA Act mapping process. As with E-rate, states would be required to put up 10% in matching funds for these construction grants.

Closing the digital divide is a priority for Democratic and Republican governors and the business community. Inspired by the Obama administration's ConnectED program, 85 governors from all 50 states made closing the K-12 digital divide a priority for their administrations. In partnership with ISPs, these governors harnessed the E-rate program to bring high-speed broadband infrastructure to 99.3% of America's schools and ensure that 99.7% of school districts could afford the Internet access their students needed. This is a signature accomplishment of the Obama administration, and the Biden administration can use the same bi-partisan, public-private partnership playbook to have an even greater impact by closing the digital divide for all Americans.

---

5. Pew Research shows that in May 2010, 64% of US adults were home broadband users. As of Feb 2019, only 73%.
6. K-12 Bridge to Broadband Program overview; press release by USTelecom and NCTA; Chicago case study and North Dakota case study.
7. American Community Survey; EducationSuperHighway analysis.
8. 2019 State of the States: As of the start of the 2019-20 school year, 99% of schools had high-speed broadband.

Appendix A

Estimating the Cost to Close the Digital Divide Affordability Gap

Nearly 60% of households without Internet access have access to a broadband connection meeting the FCC's standard. Unfortunately, these households cannot afford the monthly cost to subscribe. The Biden administration can close this portion of the digital divide by providing $6 billion of annual subsidies to states, counties, and municipalities for the aggregated purchase of broadband for these households.

Analysis:

- There are 122.8 M households in the U.S.

- ACS data shows 28.9 M households without high-speed broadband

- Cable industry data shows 110.5 M U.S. households have broadband infrastructure available that meets or exceeds the FCC broadband standard

- This suggests that 12.3 M households need broadband infrastructure built to them, and the remaining 16.6 M have infrastructure readily accessible

- Based on national percentages of those with infrastructure available, 15% of those without infrastructure will also be unable to afford broadband (1.8 million)

- There are 10 million subscribers to low-cost broadband plans (NCTA)

- The total number of households requiring subsidies will be 28.4 M[9]

- We assume a $20 per month subsidy to provide cities and states with the resources to procure home broadband connections that support work, learning, and telehealth

- Cities and states are required to put up a 10% match to ensure that they are good stewards of the program.

- Total annual cost assuming 99% adoption is $6.7 B[10] (or $3.35 B at $10 per month)[11]

- Federal government pays $6.1 B, cities and states pay $674 M (or $3 B / $335M at $10 per month).

Financing options:

- *Appropriations.* The most effective strategy to address the digital divide affordability gap is to pair funding for this with a broadband infrastructure bill such as the Broadband Connectivity Fund proposed by Congressman Clyburn in HR 7302.

- *Universal Service Fund.* The E-rate and Lifeline programs are both currently underutilized and could potentially be leveraged to fund the affordability gap. There may be up to $1 B per year in each program available. However, taking advantage of these unused USF resources would require regulatory changes to both programs[12].

---

9. This number corresponds roughly to the number of people eligible for Lifeline support (33.2 M).
10. This amount is potentially reduced by $1 billion if E-rate funds are used to connect K-12 students.
11. $10 per month is the current rate for many 25/3 services offered to low income households.
12. Creating a new USF program that uses fees on broadband connections to fund the affordability gap would require $60 per year in fees on all 100 million broadband connections and is likely untenable.

Appendix B

Governors Highlight the Digital Divide Affordability Gap

Over the past year, Governors from both parties expounded on the importance of making broadband more affordable:

GOVERNOR	QUOTE
Jared Polis (CO)	"Colorado's rural communities need access to affordable and reliable broadband is critical to our economy and our future."
Eric Holcomb (IN)	"In the 21st century, high quality, affordable broadband is essential to the success of Hoosiers and our state."
Laura Kelly (KS)	"COVID-19 has made it clear how important access to high-speed internet is for Kansans in rural and urban regions alike. Whether it's telemedicine, teleworking, or online education capabilities, broadband is a singular tool that can change outcomes for communities."
Gretchen Whitmer (MI)	"Residents who lack access to broadband or cannot afford a home broadband connection are unable to participate in telehealth, virtual learning, telework, civic engagement, and many other activities those who are connected are able to use every day."
Bill Lee (TN)	"The COVID-19 pandemic has only further elevated the importance of access to reliable, affordable broadband internet to facilitate telemedicine, distance learning, and telecommuting."
Greg Abbott (TX)	"As Texas students continue their education at home through virtual instruction, it is essential that we provide them with the resources they need to connect and communicate online."
Phil Scott (VT)	"Hundreds of Vermonters without 25/3 Mbps broadband service live just out of the reach of current cable and other Internet Service Providers' networks. Extending these networks to unserved and underserved areas can be expensive, and the full cost can be unaffordable for those looking to take this step."

Education SUPERHIGHWAY

Appendix C

Why Aggregated Procurement is Critical to Closing the Digital Divide

Low-income families face a plethora of barriers to successfully signing up for home broadband service. They struggle to find information about the availability of affordable broadband programs and navigate complex sign-up processes that are particularly challenging for non-English speakers. In addition, many are ultimately deemed ineligible due to poor credit histories, outstanding debts to ISPs, or a lack of documentation[13]. These same reasons are why less than 25% of eligible households take advantage of the FCC's Lifeline program.

Aggregating procurement at the municipal, county, or state level can eliminate these barriers and accelerate the closing of the digital divide. By shifting responsibility for procurement to a single buyer, aggregated procurement models eliminate the information gap and remove credit, debt, and documentation issues for families. In addition, aggregated procurement ensures that ISPs compete for the business, potentially resulting in lower costs, higher speeds, and better customer service.

During the pandemic, aggregated procurement by cities, school districts, and states has enabled over three million K-12 students to be connected. This represents 2-3 times more progress in six months than has been made in the last ten years[14]. Examples of aggregated procurement models include:

- *Chicago*: In April 2020, 100,000 Chicago Public Schools students did not have an active Internet connection at home and were unable to attend classes virtually. Chicago Public Schools worked with service providers to identify the 60,000 student households that needed home broadband and then issued an RFP to buy service for these families. Over 30,000 households have already been connected, and the district is now working with community-based organizations to connect the rest.

- *North Dakota*: in March 2020, ND's Departments of Public Instruction and Information Technology sent the Dakota Carrier Network a dataset of 116,000 student addresses. The state and providers worked together to overlay this student address data with provider service data. As a result of that overlay, the state identified 2,000 homes in rural North Dakota without connectivity. Of those 2,000, providers could offer immediate service to 1,865. Providers then took equipment into unserved students' homes and connected them to their local networks.

---

13. Common Sense Media's "Connect All Students: How States and School Districts Can Close The Digital Divide".
14. This represents 20-30% of students that were not connected at the start of the pandemic versus the 9% increase in home broadband users from 2010-2019 documented by Pew Charitable Trust.

Appendix D

Voices from the Community - Why Closing the Digital Divide Matters

From mayors in Seattle to Little Rock:

- "We know that access to technology is a race and social justice issue, and the pandemic has further magnified the digital inequities with many in our community lacking the technology and devices needed for school or work."
  - Seattle Mayor Jenny Durkan

- "The digital divide is not just a rural issue in our state. It is also an urban issue, one that has been magnified during the coronavirus pandemic." *- Little Rock Mayor Frank Scott Jr.*

From small rural school divisions in Virginia to the large urban school district in DC:

- "Equity is indeed our driving principle, and we're not going to be satisfied until we have 100% of students connecting with their school and teachers on a daily basis."
  - Steve Tatum, Technology Director of Martinsville Public Schools

- "As schools begin classes online, students without regular access to the internet are at a severe disadvantage."
  - Lindsey Parker, Chief Technology Officer of DC Public Schools

From Senators on both sides of the aisle:

- "With the arrival of the pandemic, we saw Internet access go from a luxury to a necessity almost overnight."
  - Republican Senator John Cornyn

- "The internet is not a luxury. It is an essential service."
  - Democratic Senator Ed Markey

From Pennsylvania's Attorney General to Oregon's PUC chair:

- "During this emergency where nearly 1 in 3 Pennsylvanians are out of work and millions are at home, it's crucial that everyone has access to fast, reliable internet." *- PA Attorney General Josh Shapiro*

- "These additional funds will increase the discount for families, making telephone and broadband service more affordable during these unprecedented times."
  - OR PUC Chair Megan Decker

From leaders of the telecommunications industry to America's business community:

- "Every student in every zip code in every corner of this country needs connectivity to learn and fulfill their potential." *- Jonathan Spalter, CEO of USTelecom*

- "It is fundamentally unfair to allow students who lack the digital tools to connect to fall through the cracks of the Digital Divide." *- US Chamber of Commerce*

- "Now is the time for legislators and policymakers to act to ensure the educational and economic success of all Americans by making broadband connectivity more accessible, affordable and sustainable." *-John Stankey, CEO of AT&T*

From leaders of advocacy groups:

- "COVID has drawn to light that there are lots of families in urban areas where the infrastructure is available but people aren't subscribing to it." *- Angela Siefer, Executive Director of the National Digital Inclusion Alliance*

- "Patchwork solutions in individual cities and states are not enough. It is time to treat the internet as the essential service it is. The federal government must take immediate action and work with companies to provide reliable, universal Wi-Fi." *- Mike Magee, CEO of Chiefs for Change*

- "As we witnessed in the spring when the COVID-19 pandemic forced schools to switch to remote learning, the disparate impact of the preexisting digital divide - the gulf between those who have ready access to computers and the Internet, and those who do not - is an urgent and critical issue of racial inequity." *- Sherrilyn Ifill, NAACP Legal Defense Fund President*

About EducationSuperHighway

EducationSuperHighway was founded in 2012 with the mission of upgrading the Internet access in every public school classroom in America. The organization took on this mission because it believes that digital learning has the potential to provide all students with equal access to educational opportunity and that every school requires high-speed broadband to make that opportunity a reality. Having completed our mission to upgrade schools, we pivoted our work to focus on connecting the 10-15 million students who lack home broadband. In the second half of 2020, we launched K-12 Bridge to Broadband to accomplish this in partnership with states, districts, and ISPs at scale.

Education
SUPERHIGHWAY