

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)
)
Petitions for Emergency Relief to Allow)
the Use of E-Rate Funds to Support Remote) WC Docket No. 21-31
Learning During the COVID-19 Pandemic)

To: The Commission

**COMMENTS OF
NEW AMERICA’S OPEN TECHNOLOGY INSTITUTE & EDUCATION POLICY
PROGRAM, PUBLIC KNOWLEDGE, CONSUMER REPORTS, BENTON INSTITUTE
FOR BROADBAND & SOCIETY, ACCESS HUMBOLDT**

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New America’s Open Technology Institute & Education Policy Program, Public Knowledge, Consumer Reports, the Benton Institute for Broadband & Society, and Access Humboldt (“Public Interest Organizations” or “PIOs”) submit these Comments in response to the *Public Notice* in the above-captioned proceeding.¹ The PIOs urge the Commission to grant the relief requested in the petitions and to authorize both more funding and more flexible use of E-Rate funds and facilities to connect students, staff, and patrons for educational purposes at home or other off-campus locations. Millions of students without adequate internet access continue to rely on remote learning, turning a longstanding “homework gap” into a damaging chasm. Students without home broadband are being left behind academically. Students of color are hit particularly hard. One out of every three Black, Latinx, and American Indian/Alaska Native

¹ Wireline Competition Bureau Seeks Comment on Petitions for Emergency Relief to Allow the Use of E-Rate Funds to Support Remote Learning During the COVID-19 Pandemic, WC Docket No. 21-31 (Rel. Feb. 1, 2021), <https://docs.fcc.gov/public/attachments/DA-21-98A1.pdf> (“Public Notice”).

households with children do not have high-speed home internet access.² The Commission has the authority and funding available to immediately mitigate this pandemic-induced crisis in American education by opening an emergency window for supplemental funding and giving schools and libraries full flexibility to use E-Rate to connect students wherever they are learning.

I. INTRODUCTION AND SUMMARY

The Public Interest Organizations (“PIOs”) submit these comments in support of the petitions for an expedited declaratory ruling to clarify that off-campus use of E-rate-supported services to enable remote learning constitutes an “educational purpose” and is therefore allowed under program rules. The PIOs also strongly support the request in the petition filed by the Schools, Health, Libraries Broadband (SHLB) Coalition, OTI and other nonprofit groups (“SHLB et al. Petition”) that the “Bureau release hundreds of millions of dollars—currently not designated for use but held in the E-rate program—to support remote learning,” and also establish a “remote learning application window” as soon as practicable for the specific purpose of allowing applicants to submit initial or revised requests for E-rate funding dedicated to off-campus services used for educational purposes during Funding Years 2020 and 2021.³

As our nation enters its twelfth month of the COVID-19 pandemic, most schools remain closed or opened on a limited basis, utilizing distance learning as a primary means of educational instruction. Modern-day education requires broadband access at home—a necessity which has been exacerbated by school closures that have moved all of education to an online format. The

² John B. Horrigan, “Students of Color Caught in the Homework Gap,” Alliance for Excellent Education (All4Ed), et al. (July 2020) (“FutureReady Report”), https://futureready.org/wp-content/uploads/2020/07/HomeworkGap_FINAL7.22.2020.pdf. The analysis used data from the 2018 American Community Survey1 (ACS).

³ Petition for Expedited Declaratory Ruling and Waivers filed by the Schools, Health & Libraries Broadband Coalition, et al., WC Docket No. 13-184, at i-ii (filed Jan. 26, 2021), <https://www.fcc.gov/ecfs/filing/101260036427898> (“SHLB, et al. Petition”).

necessity of adequate broadband connectivity at home or wherever students and their teacher are engaging in remote learning remains as vital today as it did last spring. The petitioners seek emergency funding as well as relief from any restrictions on the use of E-Rate-funded services or facilities to support remote learning during this unprecedented public health emergency crisis. The petitions make a compelling case that the Commission must take action now to provide the added funding and flexibility schools need to address the challenges they continue to face—thereby ensuring the connectivity needed to mitigate the harmful impacts on educational opportunities created by the pandemic. The PIOs believe that granting all of the relief requested in the *SHLB et al. Petition* in particular will help meet that challenge.

The PIOs emphasize in the comments below that it is crucial that the Commission provide schools and libraries with maximum flexibility to acquire the services and networking equipment they determine will best address the unique local circumstances, challenges, and opportunities they face. In addition, and consistent with past precedent, the Wireline Competition Bureau (“Bureau”) should waive any cost allocation rules with respect to remote learning to minimize the financial and administrative burden of extending access to the school’s network for educational purposes to students, staff and patrons at home or other locations. The legal authority of the Commission and of the Bureau, on delegated authority, to take the steps called for in the petitions is well-established.

II. SCHOOL CLOSURES AND HYBRID IN-CLASS AND AT-HOME INSTRUCTION SHOULD COMPEL GRANTING OF THE PETITIONS

The COVID-19 crisis continues to take a toll on all aspects of our society, including sharply higher unemployment rates, strains on an overburdened healthcare system, and a mounting toll of hospitalizations and deaths. Despite the current vaccination campaign,

continuing high case levels and the uncertainties created by new variants of the coronavirus suggest the nation is far from done with the crisis stage of this pandemic. Millions of schoolchildren remain affected as schools across the country continue to struggle with reopening. Numerous news reports suggest that some of the nation’s largest school districts expect at least partial remote learning to continue for the remainder of this school year and into the fall 2021 term.⁴

Millions of K-12 students lack access to an essential component of remote learning—affordable broadband. Studies have found that as many as 17 million schoolchildren lack access to adequate broadband at home, with one-third of those schoolchildren in minority populations. Recent research from Georgetown University shows that while schools have distributed computers to help students during the pandemic, they have not been able to meaningfully help students get online at home and the percent of students lacking access to the internet has largely stayed the same.⁵

There is a two-pronged approach underway to tackle this challenge. At the federal level, there is a new evidence-based discussion concerning how we as a country can re-open schools safely, including ensuring greater coordination at the federal, state and local level; developing concrete guidance on how schools can safely re-open and when they should reinstitute virtual learning to mitigate outbreaks in a school; and providing funding necessary for a safe re-opening.

⁴ See Rick Hurd, “Return to school this year for San Francisco students ‘not realistic’ under union deal,” *The Mercury News* (Feb. 9, 2021), <https://www.mercurynews.com/2021/02/09/return-to-school-this-year-for-san-francisco-students-not-realistic/>.

⁵ Anthony P. Carnevale and Megan L. Fasules, “Virtual Learning is Not Child’s Play for K-12 Students: Technology gaps make learning harder for students in lower-income households,” Georgetown Center on Education and the Workforce, *Medium.com* (February 11, 2021), <https://medium.com/georgetown-cew/virtual-learning-is-not-childs-play-for-k-12-students-c8daee32db55>.

This effort will take time and even once implemented, there will be a need for remote learning that continues until coronavirus has been brought under control through vaccination. For that reason, President Biden’s Executive Order outlining this critical effort calls on the Commission to take steps within its authority “to increase connectivity options for students lacking reliable home broadband, so that they can continue to learn if their schools are operating remotely.”⁶

III. THE E-RATE COST ALLOCATION RULE UNDERMINES EFFORTS TO CONNECT STUDENTS FOR REMOTE LEARNING AND THE COMMISSION SHOULD IMMEDIATELY WAIVE THE RULE DURING THE PANDEMIC

The PIOs strongly agree with the SHLB Coalition, the States of Colorado and Nevada, and other petitioners who request that the Commission immediately waive cost allocation rules in relation to the use of E-Rate funded facilities and services for remote learning.⁷ We agree that a Bureau-level declaration of the self-evident fact that remote learning serves an “educational purpose” during the pandemic emergency “make[s] it unnecessary for schools to cost-allocate between on- and off-campus uses and would give them greater flexibility to use their existing broadband connections to connect students to the Internet from their homes or other locations for educational purposes.”⁸ We ask the Commission to declare that so long as remote learning

⁶ The White House, President Joseph R. Biden Jr., “Executive Order on Supporting the Reopening and Continuing Operation of Schools and Early Childhood Education Providers” (Jan. 21, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/21/executive-order-supporting-the-reopening-and-continuing-operation-of-schools-and-early-childhood-education-providers/>.

⁷ *SHLB, et al. Petition* at 10-11; Petition for Waiver on behalf of the State of Colorado, WC Docket No. 13-184, at 4 (filed Sept. 2, 2020), <https://www.fcc.gov/ecfs/filing/10902218280692> (“Colorado Petition”).

⁸ *SHLB, et al. Petition* at 10-11

connections and services are used primarily for educational purposes, cost allocation is unnecessary during the pandemic emergency and through the end of the 2021 E-Rate fiscal year.

Such a declaration and waiver would be consistent with past determinations that off-campus services can be supported by E-Rate funding for educational purposes.⁹ A waiver of the cost allocation rules also recognizes that schools and libraries need the flexibility to use all available funding and facilities during this emergency to provide students and staff with the connectivity they need for remote learning. This promotes a more effective utilization of E-Rate funds and facilities for the essential educational purpose of remote learning.

The State of Nevada’s petition provides one of many examples of school districts that could quickly and at low cost extend school networks directly from school buildings to student and staff homes within the range of available wireless technologies. As Nevada states: “Erecting fixed wireless hotspots on the roof of school buildings would allow students to take advantage of the robust fiber connections that E-rate funding and the Nevada Connect Kids initiative have made possible.”¹⁰ Relatively flat terrains without dense foliage and a “robust Wireless Internet Service Provider (WISP) community that stands ready to deploy and support licensed spectrum solutions” are among the locally-specific reasons that “Nevada is uniquely situated to benefit from and [] ready to implement this solution.”¹¹ School districts in Boulder, Colorado, and in southern Virginia have similar requests pending since 2016 for waivers from cost-allocation rules that deter innovative schools and libraries from leveraging the high-capacity backhaul

⁹ *See id.* at 9-10.

¹⁰ Letter from Elaine Wynn, President, Nevada State Board of Education, to Chairman Pai, FCC, CC Docket No. 02-6, at 2 (Aug. 10, 2020), <https://www.fcc.gov/ecfs/filing/108212219529231> (“Nevada Petition”).

¹¹ *Id.*

already purchased with E-Rate support to address an out-of-school homework gap that has widened during the pandemic into an educational crisis.¹²

Nevada’s perspective is supported by a 2019 report by the Government Accountability Office (“GAO”), which examined the remote learning pilot program the Commission established in 2010. GAO stated that many school districts found that the “existing E-Rate program rules that require cost-allocation . . . limit their ability to address the homework gap and providing off-premises access remains a challenge for schools and school districts.”¹³ Under current E-Rate rules, while the general public can use Wi-Fi networks funded by E-Rate on school property,¹⁴ schools and libraries do not have the flexibility to use E-Rate funds to extend those networks to students and teachers lacking adequate internet access at home. Schools and libraries should not be deterred from pursuing the remote learning strategies they find most effective, based on local circumstances, because of burdensome cost allocation rules. Removing these obstacles will provide schools and libraries greater flexibility during the pandemic and represent a more cost-effective use of the E-rate funding overall.

¹² Joint Petition For Clarification or, in the Alternative, Waiver of Microsoft Corporation, Mid-Atlantic Broadband Communities Corporation, Charlotte County Public Schools, Halifax County Public Schools, et al., WC Docket No. 13-184 (June 7, 2016), available at <https://ecfsapi.fcc.gov/file/60002098542.pdf>; Petition for Waiver on behalf of Boulder Valley School District Samuelson-Glushko Technology Law & Policy Clinic (TLPC), WC Docket No. 13-184, WC Docket No. 10-90 (May 16, 2020), <https://ecfsapi.fcc.gov/file/60001843683.pdf>.

¹³ Government Accountability Office, “FCC Should Assess Making Off-School Premises Access Eligible for Additional Federal Support” (July 2019) at 23 (“School districts we met with said that existing E-Rate program rules that require cost-allocation . . . limit their ability to address the homework gap and providing off-premises access remains a challenge for schools and school districts.”) (“GAO Report”). *Id.* at 27-28.

¹⁴ Schools and libraries “are permitted to allow the public to access E-Rate funded services even when they are closed to the public due to the coronavirus pandemic.” Public Notice, “Wireline Competition Bureau Confirms that Community Use of E-Rate Supported Wi-Fi Networks is Permitted During School and Library Closures Due to Covid-19 Pandemic,” WC Dockets 02-6, 13-184 (March 23, 2020). The Commission adopted this off-hours, community-use exception in its Sixth E-Rate Report & Order in 2010. See *Sixth E-Rate Report and Order*, at ¶¶ 25-26.

IV. THE COMMISSION SHOULD AUTHORIZE EMERGENCY FUNDING FOR REMOTE LEARNING AND WAIVE RESTRICTIONS ON ELIGIBLE EQUIPMENT AND SERVICES USED FOR EDUCATIONAL PURPOSES

The PIOs strongly support the SHLB Petitioners' request that the Commission authorize the use of existing E-Rate carry-over and "reserve" funds, as well as additional funds up to the program's inflation-adjusted cap, as needed, for off-campus services to facilitate remote learning during the pandemic.¹⁵ E-Rate carry-forward funding held in reserve has been substantial in recent years. Our groups believe the Wireline Bureau should direct USAC to open a new window for applications for this additional funding as soon as practicable. Further, and crucially, the PIOs fully agree with the SHLB Petitioners that the Commission should waive the eligible services rule for fiscal years 2020 and 2021 so that any network equipment and other services are eligible when purchased for off-campus educational purposes.¹⁶ The PIOs further agree that all of these actions can be taken by the Wireline Bureau on delegated authority.¹⁷

A. The Commission Should Waive Eligible Service Rules and Adopt Technology-Neutral and Competitively-Neutral Rules that Allow Local Flexibility

Our groups urge the Commission to take a technology-neutral and competitively-neutral approach in setting eligibility rules for any emergency funding for remote learning, including any future Congressional appropriation. The Commission should allow schools and libraries to obtain reimbursement for the reasonable costs of whatever equipment and advanced

¹⁵ See *SHLB et al. Petition* at 13-15. Wireline Bureau notices since July 2020 suggest the program has the potential to approve additional emergency expenditures by schools and libraries by as much as \$1.3 billion. *Id.* at 15, citing *Wireline Competition Bureau Directs USAC to Fully Fund Eligible Category One and Category Two E-Rate Requests*, CC Docket No. 02-6, Public Notice, 35 FCC Rcd 6756, 6756 (July 6, 2020); *Wireline Competition Bureau Announces E-Rate and RHC Programs' Inflation-Based Caps for Funding Year 2020*, CC Docket No. 02-6, Public Notice, 35 FCC Rcd 2062 (Wireline Comp. Bur. 2020); 47 C.F.R. § 54.507(a)(3).

¹⁶ *SHLB et al. Petition* at 17-18.

¹⁷ *Id.* at 24-26.

telecommunications and information services that the local school or library determines best serves the needs of its students, school staff, and library patrons. The Commission cannot account for the wide variety of circumstances, challenges and opportunities facing thousands of school districts and libraries across the country. Local school and library administrators are in the best position to determine what specific services, technologies, and equipment will provide the most cost-effective solution in their community.

The PIOs therefore urge the Commission, as the SHLB Petitioners request, to “find that wired or wireless network access equipment and services necessary for remote learning would be eligible services for the remote learning application window.”¹⁸ More specifically, our groups agree with the SHLB Petitioners that extending connectivity for remote learning can take many forms and include different technologies and strategies:

This connectivity can take many forms: examples include (1) a cable or telephone company connection to a student or teacher home; (2) personal hotspots with mobile data connections; (3) school or library Wi-Fi networks; (4) school bus or other Wi-Fi hotspots in targeted locations; or (5) a fixed wireless private LTE solution where the district’s network connects directly to student and teacher homes.¹⁹

Indeed, the services and equipment that best serves students can vary even within the same school district depending on factors that can vary even with geography and demographics. The dozens of variables facing local schools include the availability, service quality, and relative cost of fixed and mobile commercial broadband ISPs, as well as the ability to leverage and extend existing school or community broadband networks. Some of these options can vary widely by neighborhood or topography (e.g., the signal strength of commercial mobile service).

¹⁸ *SHLB et al. Petition* at 18-19.

¹⁹ *Id.* at 9.

In some cases the most effective local strategy to connect students for remote learning will be a combination of approaches.

A leading example of a hybrid and cost-effective approach is San Jose, California. The city and its local school districts have formed a partnership that combines paying for thousands of mobile hotspot subscriptions for some students, while also expanding the school-sponsored community Wi-Fi network that already covers some of the densest and poorest neighborhoods within the city's East Side Union School District (ESUSD).²⁰ The school district, which built its original Wi-Fi network to address the homework gap, has found that thanks to a cost-sharing partnership with the city (which provides siting, electricity and fiber backhaul), in densely-populated neighborhoods the cost-per-student-connected is lower than purchasing monthly broadband subscriptions and provides a sustainable, long-term solution to the homework gap.

B. Flexible Rules Are Needed to Facilitate a Wide Range of Innovative and Proven Connectivity Solutions To Support Students and Teachers for Remote Learning

The Commission requests comment on “the specific equipment and services that E-Rate should support to fund off-campus access to broadband services for students, staff and patrons who lack adequate home Internet access.”²¹ In the absence of federal guidance and support, school districts and local governments have developed a variety of innovative methods to provide broadband access to students who lack service at home. The Commission should waive any restrictions that could stymie these local approaches or any new innovations tailored to meet the unique connectivity challenges and opportunities in thousands of diverse communities across

²⁰ Sharon Noguchi, “Free Wi-Fi: San Jose, East Side Schools to Bring Internet to Neighborhoods,” *The Mercury News* (Oct. 3, 2016), <https://www.mercurynews.com/2016/10/03/free-wi-fi-sanjose-east-side-schools-to-bring-internet-to-neighborhoods/>.

²¹ *Public Notice* at 5.

the nation. Local leaders know best how to meet local needs—and how best to leverage and extend investments they have already made in connectivity to students and staff off campus. OTI described many examples in a November report that is appended to these comments: *The Online Learning Equity Gap: Innovative Solutions to Connect All Students at Home*.²² The PIOs strongly believe the Commission should adopt flexible rules that include these wireless networking strategies in any definition of eligible equipment and service aimed at closing the remote learning chasm. Proven examples of these networking strategies include:

1. School Districts Deploying Community Wi-Fi Networks

Some of the nation’s poorest school districts were able to switch more fully and equitably to remote learning last March. This was thanks to work done over the preceding several years, when they built out school-owned Wi-Fi networks with the goal, at the time, of closing the homework gap by extending free, basic wireless internet access to the homes of students in the neighborhoods most in need. The districts had all determined that building their own community Wi-Fi network was the most cost-effective and sustainable long-term way to address the steadily growing disadvantage suffered by students without access to broadband at home. The appended OTI report profiles three local districts that have pioneered community Wi-Fi initiatives, in partnership with their municipality, that allow their mostly low-income students to continue—and enhance—their education online.²³

- **Lindsay Unified School District**: Lindsay, a poor agricultural community of 13,000 in California’s Central Valley, has connected nearly every single student at all grade

²² Michael Calabrese and Amir Nasr, “The Online Learning Equity Gap: Innovative Solutions to Connect All Students at Home,” New America’s Open Technology Institute Report (Nov. 17, 2020), <https://www.newamerica.org/oti/reports/online-learning-equity-gap/> (“OTI E-Rate Report”).

²³ *Id.* at 24.

levels—90 percent of whom are eligible for the federal free or reduced lunch program—by deploying a wireless network that relies on a combination of Wi-Fi (in dense neighborhoods) and Educational Broadband Service spectrum (in outlying areas).²⁴ After concluding that a mobile hotspot solution was unworkable in this farmworker community, the district tested its concept by installing Wi-Fi hotspots in an apartment complex next to one of the district’s six elementary schools, providing access to 40 students. The pilot confirmed the viability of the solution and so the district “extended the network by installing APs on each of its schools, as well as on city property and staff homes.”²⁵ Lindsay is particularly pertinent to this proceeding not only because the district has succeeded in closing the homework gap, but also because the district found it is cost-effective, sustainable and is producing measurable improvements in test scores, graduation rates and college attendance.²⁶ It is notable as well that the one of the primary obstacles cited by district leaders is the added costs the Commission imposes with its restrictive E-Rate cost allocation policy.²⁷

- **Council Bluffs, Iowa:** In Iowa, the Council Bluffs Community School District partnered with the city and private sector donors to deploy a community Wi-Fi network through a phased rollout that started with the most high-poverty neighborhoods.²⁸ The BLink-

²⁴ *Id.*; OTI Interview with Peter Sonksen, Network Administrator, and Barry Sommer, Director of Advancement, Lindsay Unified School District, June 1, 2020; *See* Ed Data, Education Data Partnership, Lindsay Unified District Profile, available at <http://www.ed-data.org/district/Tulare/Lindsay-Unified>.

²⁵ *Id.* at 25.

²⁶ *Id.* at 26.

²⁷ *Id.* at 25 (“The Commission effectively penalizes Lindsay for relying on the district’s fiber backhaul to give students direct access to the school’s filtered network at home. According to Lindsay officials, the district is forced to throttle the bandwidth available to students at home to reduce cost, even though the school itself pays for more bandwidth than it needs.”).

²⁸ *See* Video Overview, BLink-Bluffs Free Community Wi-Fi Network, <http://blinkwifi.org/about.php>.

Bluffs Free Community Wi-Fi Network is currently in phase six of a 10-phase plan to cover the entire city as funding becomes available.²⁹ The BLink-Bluffs Wi-Fi network is precisely the kind of community-driven solution to the homework gap that the Commission should be supporting both through flexible rules and funding. The district’s CTO told OTI in an interview that “what districts need is an option to use Cat Two to extend their networks, such as for Wi-Fi extensions of the school network.”³⁰

- **San Jose’s East Side Union School District:** Despite its proximity to Silicon Valley, an estimated 30 percent of student households do not have broadband service, two-thirds of students are characterized as socioeconomically disadvantaged, and a majority are eligible for free and reduced-price meals at school.³¹ Despite this, the district has mostly closed the homework gap in its poorest neighborhoods with its “Wi-Fi for Everyone” partnership with the City of San Jose. With the proceeds from a school tech bond, and a cost-sharing partnership with the city, the school district deployed a dual-use, mesh Wi-Fi network that is currently being expanding into additional neighborhoods.³² As OTI detailed in its report, the district concluded that a community mesh Wi-Fi network represents a more cost-effective method of providing broadband to students unable to afford a connection than purchasing monthly broadband subscriptions for low-income students. The district’s CTO and project lead also estimated that the experience and

²⁹ “Blinks-Bluffs Free Community Wi-Fi,” City of Council Bluffs, Office of the Mayor, available at <https://www.councilbluffs-ia.gov/1010/BLink-Bluffs-Free-Community-Wi-Fi>; See also “BLink: Bluffs Community Wi-Fi, <http://www.blinkwifi.org/>.

³⁰ OTI Interview with David Fringer, Chief Technology Officer of Council Bluffs CSD, May 28, 2020; OTI E-Rate Report at 28. Emphasis added.

³¹ See Ed Data, Education Data Partnership, East Side Union High District Profile, available at <http://www.ed-data.org/district/Santa-Clara/East-Side-Union-High>.

³² OTI E-Rate Report at 28.

infrastructure developed could result in the ability to service every student across San Jose *and* some neighborhoods just bordering the city for a total cost of \$24 million.³³

2. Spectrum Sharing Frameworks Serving as Foundation for Broadband Access for Students

In response to the pandemic and the FCC’s innovative spectrum sharing policies, an increasing number of school districts are building or planning private LTE networks that rely on Citizens Broadband Radio Service (CBRS) spectrum at 3.5 GHz. General Authorized Access to this mid-band spectrum—which offers a robust balance between propagation and capacity for wireless broadband—is providing public infrastructure for partnerships between local schools, local governments, and the emerging CBRS industry.³⁴ Small-cell CBRS networks are already being used by school districts to provide broadband to home Wi-Fi hotspots offered to students and teachers, which facilitates a higher-quality and more cost-effective alternative to simply paying monthly mobile carrier bills for students without home broadband access.³⁵

- **McAllen Independent School District**: The city of McAllen, Texas has experienced great hardship from the pandemic. A quarter of city’s 145,000 residents live below the poverty line.³⁶ In response to the remote learning gap, the city has developed what is possibly the strongest early demonstration of a CBRS-powered educational broadband

³³ *Id.* at 29.

³⁴ Ray Sabourin, “Shared Spectrum Could Solve Internet Access Challenges During COVID,” CBRS Alliance (April 29, 2020), <https://www.cbresalliance.org/shared-spectrum-could-solve-internet-access-challenges-during-covid/>.

³⁵ *OTI E-Rate Report* at 30.

³⁶ Martha DeGrasse, “CBRS bridges digital divide for McAllen, Texas,” *FierceWireless* (Sep. 24, 2020), <https://www.fiercewireless.com/private-wireless/cbrs-bridges-digital-divide-for-mcallen-texas>; Sue Marek, “Texas town uses CBRS spectrum to deliver free Wi-Fi to students,” *LightReading* (Sep. 24, 2020), <https://www.lightreading.com/security/texas-town-uses-cbrs-spectrum-to-deliver-free-wi-fi-to-students/d/d-id/764162>; See Census Bureau Data, <https://www.census.gov/quickfacts/fact/table/mcallencitytexas/PST040219>.

network that could serve as a blueprint for other districts and the Commission. The district's private LTE network relies on GAA spectrum to backhaul Wi-Fi access points the district provides to student households without internet access. City-owned water towers and light poles provide siting for the CBRS base stations.³⁷ As OTI reported: "The CBRS network has been such a success it is providing service to all residents in McAllen who want and need it. By actually owning network infrastructure that offers wireless broadband connections to students and families who cannot afford it, the city has a resilient, multi-purpose network that will offer much-needed connectivity both during the pandemic and for years to come."³⁸

- **Fontana Unified School District**: This California school district, a city of 200,000 in San Bernardino County, has become the anchor tenant and partner in a CBRS network that will provide service to over 36,000 of its students who need it.³⁹ "We've estimated that 55 to 60 percent of our students do not have reliable internet access outside of school," Fontana USD Superintendent Randal S. Bassett has highlighted.⁴⁰ Bassett estimates that roughly 400 cellular access points will be needed to cover 98 percent of the students' homes. Fontana's network is still being built, but the overall architecture tracks with the McAllen network detailed above.⁴¹ CBRS base stations will transmit

³⁷ *Id.*

³⁸ *OTI E-Rate Report* at 32.

³⁹ "FUSD will launch private network, offer wireless access to all students at home," Fontana Herald News (April 17, 2020), https://www.fontanaheraldnews.com/news/fusd-will-launch-private-network-offer-wireless-access-to-all-students-at-home/article_fcb474e4-80ec-11ea-b1cf-8723921771ed.html.

⁴⁰ "Fontana Unified to Launch Private Network, Offer Wireless Access to All Students at Home," Fontana USD, Press Release (April 2020), available at <https://www.fusd.net/site/default.aspx?PageType=3&DomainID=4&ModuleInstanceID=76&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=16586&PageID=1>.

⁴¹ *OTI E-Rate Report* at 33; OTI Interview with Randal S. Bassett, October 20, 2020.

connectivity to thousands of Wi-Fi hotspots (or Wi-Fi gateway devices) provided to students for home use. The Commission’s current rules have increased the actual cost of this network, Bassett says, since the district has been forced to lease additional fiber that runs alongside the district’s E-Rate supported fiber to transport authenticated student VPN connections directly to school buildings.

- **State of Maryland**: The state of Maryland has developed a plan to construct a high-speed broadband network using GAA spectrum access to connect students in both rural and urban areas where students cannot afford service.⁴² The state plans to deploy relatively high-capacity private LTE connections to homes up to six miles away, according to the director of Maryland’s Office of Rural Broadband.⁴³ Because WISPs and even large providers, including Verizon, are deploying on CBRS spectrum, LTE base stations and other networking equipment is already available and relatively economical.

3. *Wireless Extensions of School Networks*

As noted in the section above on cost allocation, the Nevada Petition provides one of many examples of localities that are ready and able to use proven and cost-effective wireless technologies that can rapidly extend access to the school’s network directly to the homes of students and staff. A state like Nevada, possessing a “robust” WISP industry and relatively flat terrain free from dense foliage, is well-positioned to quickly extend “backhaul connections on a district’s network [that] are scalable to 10 Gbps and beyond” to connect needy students at home using a “fixed wireless solution [that] could remain in place to address all virtual education needs

⁴² Lillian Reed, “Internet network set to beam into Md.’s rural areas won’t help students this fall,” *The Baltimore Sun* (Aug. 29, 2020), available at <https://www.baltimoresun.com/education/bs-md-rural-broadband-education-network-20200828-20200829-vnfxwgdcqbcmzebqq53i5se4uu-story.html>.

⁴³ *Id.*

in the future.”⁴⁴ This is precisely the sort of rapid, cost-effective and future-proof solution that the Commission should do everything within its authority to facilitate.

Even before the pandemic, school districts in other states engaged technology companies and local ISPs to develop pilot projects that leverage unlicensed spectrum to extend connectivity from school buildings directly to students at their homes. Using TV White Spaces, these school districts demonstrated the potential of using wireless networking equipment to extend school broadband networks to the homes of students, or to light up Wi-Fi hotspots in targeted locations such as housing projects and community centers. Several school districts have petitioned the Commission years ago to request a waiver of cost allocation rules so that they could leverage TVWS spectrum as backhaul to close the homework gap for students within range. The PIOs urge the Commission to ensure that any rule waivers granted for this emergency period will both remove cost allocation penalties and make networking equipment for this purpose an allowable expenditure:

- **Charlotte and Halifax County public schools**: Two rural school districts in Southern Virginia petitioned the Commission for a waiver of cost allocation rules that would allow them to use of TVWS spectrum to extend their school networks. The districts petitioned after commencing a pilot project in 2016, which involved working with 18 schools that receive E-Rate funds and teach roughly 7,500 students.⁴⁵ The school districts stated: “Signals broadcast over TVWS can travel long distances to deliver high bandwidth internet service at low network costs... These TVWS base stations will enable students to

⁴⁴ *Nevada Petition* at 2.

⁴⁵ Joint Petition For Clarification or, in the Alternative, Waiver of Microsoft Corporation, Mid-Atlantic Broadband Communities Corporation, Charlotte County Public Schools, Halifax County Public Schools, GCR Company, and Kinex Telecom, WC Docket No. 13-184 (June 7, 2016), available at <https://ecfsapi.fcc.gov/file/60002098542.pdf>.

connect from home to safe school district networks and access content and applications needed to complete their homework assignments and engage in other school-sanctioned educational activities.”⁴⁶

- **Boulder Valley School District**: ConnectME, the Boulder, Colorado, district’s pilot program, used TVWS spectrum and technology to connect students remotely—an effort stymied by the Commission’s failure to grant a waiver of cost allocation rules.⁴⁷ In response to the remote learning crisis, BVSD expanded its early successful pilots in Lafayette and Boulder to each school in the district.⁴⁸ The district has partnered with a local WISP to provide service using CBRS spectrum and depends on bond-funded school district fiber backhaul instead of the already-paid-for school district fiber subsidized by E-Rate, thereby driving up the district’s costs to connect students at home.⁴⁹

4. School Bus-Powered Wi-Fi and Community Hotspots

The Commission should also consider a widespread—albeit imperfect—method of expanding connectivity for students without home broadband: the targeted placement of Wi-Fi hotspots near the homes of low-income students. The most common strategy, used in dozens of districts nationwide, is school-bus Wi-Fi. School districts equip buses with mobile broadband receivers, and with a Wi-Fi router, and park the buses in locations more accessible for students who sit within 200 or 300 feet. School-bus Wi-Fi, as well as the location of remote Wi-Fi

⁴⁶ *Id.* at 11-12.

⁴⁷ Petition for Waiver on behalf of Boulder Valley School District Samuelson-Glushko Technology Law & Policy Clinic (TLPC), WC Docket No. 13-184, WC Docket No. 10-90 (May 16, 2020), available at <https://ecfsapi.fcc.gov/file/60001843683.pdf>.

⁴⁸ *OTI E-Rate Report* at 40-41.

⁴⁹ Andrew Moore, “Inadequate Internet May Impact Children’s Lives for Decades to Come,” BVSD Technology Blog (Oct. 4, 2020), available at <https://bvsd-cio.blogspot.com/2020/10/inadequate-internet-for-students-hurts-us-all.html>.

hotspots, is especially cost-effective as a stop-gap measure in areas with a concentration of low-income students without internet access, such as in public housing, trailer parks, and community centers.⁵⁰ School bus Wi-Fi also has been deployed in rural areas such as in Crook County, Oregon—where the district placed 30 school buses outfitted with Wi-Fi hotspots in locations tailored to offer the service for students who lack access at home⁵¹—and in Montgomery County, Alabama.⁵² Montgomery Public Schools deployed Wi-Fi transmitters on buses to provide hotspot services at 10 different locations. MPS Superintendent Dr. Ann Roy Moore stated that the purpose is to allow “any parent, any child, in any neighborhood where they see that yellow school bus, they can access the WiFi hotspot... They don’t have to be right down the street from their home. If they’re at home, it’s fine, but if they’re at their grandma’s house and there’s a bus down the road, they can also access from that location.”⁵³

V. THE COMMISSION HAS THE STATUTORY AUTHORITY AND THE BUREAU SHOULD GRANT THE REQUESTED RELIEF ON DELEGATED AUTHORITY

The Public Interest Organizations fully concur with the SHLB, et al. Petitioners that the Commission has clear authority to interpret the relevant provisions in Section 254 to authorize the use of E-Rate-funded services and equipment to enable remote learning and “that all of the actions requested in this Petition could be taken by the Wireline Competition Bureau on

⁵⁰ *OTI E-Rate Report* at 42.

⁵¹ James Sinks, “The Wheels on the Bus Bring WiFi and Lunches,” *My Oregon News* (April 24, 2020), <https://www.myoregon.gov/2020/04/24/the-wheels-on-the-bus-bring-wifi-and-lunches/>.

⁵² Montgomery Public Schools, “School Bus Wi-Fi,” http://www.mps.k12.al.us/departments/curriculum_and_instruction/wi-fi_school_buses.

⁵³ Sally Pitts, “Montgomery Public Schools using buses as WiFi hotspots for quarantined students,” *WSFA 12 News* (April 14, 2020), <https://www.wsfa.com/2020/04/14/montgomery-public-schools-using-buses-wifi-hotspots-quarantined-students/>.

delegated authority.⁵⁴ Declaratory rulings are specifically authorized “to terminate a controversy or remove uncertainty” about the interpretation and application of the Communications Act and the agency’s implementing rules.⁵⁵ Petitioners have clearly demonstrated that both the circumstances of the pandemic-driven educational crisis and the Commission’s past precedents support an interpretation and application of the E-Rate rules that grants the relief requested in the SHLB et al., Colorado and Nevada Petitions. In advancing this view, the PIOs also incorporate the more detailed arguments presented in the appended OTI E-Rate Report.⁵⁶

The Commission has the authority to respond to widespread school closures by granting waivers and by designating a new emergency category of E-Rate funding that prioritizes internet access for remote learning where student’s lack broadband at home. Section 254(h)(1)(B) provides for universal service support for services provided “to elementary schools, secondary schools, and libraries for *educational purposes*.”⁵⁷ The PIOs agree with the SHLB et al. Petitioners and others that Congress left it to the Commission to define “educational purposes,” and under the circumstances “the Commission can further clarify whether off-campus use of equipment to support remote learning . . . constitutes an ‘educational purpose’ and is thus eligible for E-rate support under Section 254 of the Act.”⁵⁸ We further agree with SHLB et al. that although Section 254 refers to “classrooms,” it does not define the term. In the context of the statute’s universal service principles and other E-Rate provisions, we agree “it is entirely practical and reasonable—especially during the current crisis—to interpret ‘classroom’ as ‘the

⁵⁴ *SHLB et al. Petition* at 20-22.

⁵⁵ 5 U.S.C. § 554(e); 47 C.F.R. § 1.2(a) (“The Commission may . . . on motion or on its own motion issue a declaratory ruling terminating a controversy or removing uncertainty.”)

⁵⁶ *See OTI E-Rate Report* at 15-22.

⁵⁷ 47 U.S.C. § 254(h)(1)(B) (emphasis added).

⁵⁸ *SHLB et al. Petition* at 21.

place where the students and teachers are engaging in instruction and learning.”⁵⁹ Indeed, pandemic emergency or not, there is little doubt in 2021 that remote learning serves the essential “educational purpose” of mitigating the homework gap.

In addition, as the Commission recognized in its 2014 E-Rate Order, multiple sections of the Communications Act “collectively grant the Commission broad and flexible authority to set the list of services that will be supported for eligible schools and libraries, as well as to design the specific mechanisms of support.”⁶⁰ Section 254(c)(1)(A) requires the Commission, in designating supported services, to consider the extent to which services “are essential to education, public health, or public safety”⁶¹ and “consistent with the public interest, convenience, and necessity.”⁶² Certainly, during this period of school closures, there are few things more “essential to education” than broadband internet access for students and teachers.

Moreover, the Communications Act explicitly gives the Commission discretion to add “special services” for schools from time to time, as needed. Section 254(c)(3) states:

In addition to the services included in the definition of universal service under paragraph (1), the Commission may designate additional services for such support mechanisms for schools, libraries, and health care providers for the purposes of subsection (h).

The authority to fund equipment or services that extend broadband to students where they are learning is further supported by Section 254(h)(2)(A). The statute directs the Commission to “enhance, to the extent technically feasible and economically reasonable, access to advanced

⁵⁹ *Id.* at 22.

⁶⁰ Report and Order, Modernizing the E-Rate Program for Schools and Libraries, WC Docket 13-184, at ¶ 67 (rel. July 23, 2014) (“2014 E-Rate Order”), citing 47 U.S.C. §§ 254(c)(1), 254(c)(3), 254(h)(1)(B), 254(h)(2), Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

⁶¹ *Id.* at ¶ 73, citing 47 U.S.C. § 254(c)(1)(A).

⁶² 47 U.S.C. § 254(c)(1)(D). See *Colorado Petition*, *supra*, at 4.

telecommunications and information services” for schools and libraries.⁶³ Although the Commission has long maintained that Section 254’s focus on access to services precludes funding for end-user devices, such as laptops,⁶⁴ Wi-Fi-enabled hotspots represent network equipment and perform the same function as Wi-Fi routers and other internal connections that distribute wireless broadband connectivity to students and teachers in a school.

Importantly, as the State of Colorado’s Petition emphasized, last April the FCC embraced this same authority, under the same statutory provision, to extend funding and flexibility for USF telehealth services to rural patients and veterans at home. In its Report and Order creating a new \$100 million Connected Care Pilot Program, the FCC clearly concluded it has the statutory authority under the same Section 254(h)(2)(A)—which applies to schools, libraries, and health care providers—to create a discrete new category of USF support dedicated to “funding health care provider purchase of broadband Internet access service for participating patients,” particularly low-income patients and veterans in rural areas.⁶⁵ The Order described the goal of extending connectivity to reach patients where they are with these services, which apply equally to schools attempting to extend essential education services to students the home:

For the Pilot Program, funding patient broadband Internet access services would **expand health care providers’ digital footprints for purposes of providing connected care services** and allow health care providers to serve more eligible low-income patients and

⁶³ See 47 U.S.C. §§ 254(h)(1)(b) and 254(h)(2)(A) (emphasis added); 2014 E-Rate Modernization Order at ¶ 69. See also *Texas Office of Public Utility Counsel v. FCC*, 183 F.3d at 444 (the Commission’s “primary directive is to ‘enhance access to advanced telecommunications and information services’ for schools and libraries”).

⁶⁴ See, e.g., Modernizing the E-rate Program for Schools and Libraries, Order, 33 FCC Rcd 11219, 11231, Appendix B, Eligible Service List for Funding Year (WCB 2018) (“Examples of items that are ineligible components of Internet access services include applications . . . and end-user devices and equipment such as computers, laptops, and tablets.”).

⁶⁵ Report and Order, *In the Matter of Promoting Telehealth for Low-Income Consumers*, WC Docket No. 18-213, WC Docket No. 20-89 (rel. April 2, 2020), at ¶ 88 (emphasis added).

veterans through the Pilot Program and, thus, enhance health care providers' access to "advanced telecommunications and information services."⁶⁶

The Commission defends its conclusion by noting it previously determined the agency has "broad discretion regarding how to fulfill this statutory mandate" under section 254(h)(2)(A).⁶⁷ The Order also relies on the fact that "the costs of broadband Internet access service for patient use in their homes or mobile locations, . . . are an obstacle for certain health care providers and their patients to adopt connected care services."⁶⁸ To remedy this obstacle, the Order concludes that enhancing program services to extend its reach to patients lacking connectivity represents an "advancement of universal service [based] on the principles outlined in section 254(b) of the Act."⁶⁹

These circumstances are as true for students and teachers needing home internet access for education as they are for telehealth patients in the Connected Care Pilot Program. If the FCC can adopt these measures for rural telehealth, it should certainly take this opportunity to do so for connected learning as well. Additionally, the telehealth pilot program is not limited to the duration of the pandemic, but designed to continue for three years. Like home-schooling classrooms, while the need for this program is greatest now, the Commission is certainly correct that the ability of advanced telecommunications to extend the benefits of USF-supported services

⁶⁶ *Ibid* (emphasis added).

⁶⁷ *Id.* at ¶ 90.

⁶⁸ *Ibid.*

⁶⁹ *Id.* at ¶ 91. For support, the Order cites to a Lifeline pilot and states: "In 2012, the Commission previously relied in part on the universal service principles in section 254(b) to establish a limited duration pilot program to explore how USF funding could increase broadband adoption among Lifeline consumers. *See Lifeline Link Up Reform and Modernization, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656, 6797, paras. 328-330 (2012).*" *Id.* at ¶ 91, n. 352.

to locations where they are most needed advances the congressional goals of universal service set out in Section 254.

Finally, the PIOs agree with the SHLB et al. Petitioners that in light of the Connected Care Pilot precedent and because the requested emergency relief for remote learning is both urgent and temporary, In light of the precedent discussed above, and the fact that the requested relief is only temporary, “the Wireline Competition Bureau could grant the requested declaratory ruling and all of the associated relief requested in this Petition on delegated authority.”⁷⁰ The SHLB et al., Colorado and Nevada Petitions present no “novel questions of fact, law or policy which cannot be resolved under outstanding precedents and guidelines.”⁷¹ Nor is any aspect of the requested relief novel. As SHLB et al. noted, the Commission has in the past authorized the use of E-Rate funds and facilities for certain off-campus purposes.⁷² The Bureau has also previously directed USAC to use reserved funds during a specific funding year.⁷³ And it just recently relied on delegated authority to direct USAC to open a new funding application window,⁷⁴ as well as to grant various waivers to promote more effective rural telehealth support during the pandemic emergency.⁷⁵ The Bureau can similarly use its authority to grant the declaratory rulings and waivers sought by SHLB et al. and other petitioners.

⁷⁰ *SHLB et al. Petition* at 24.

⁷¹ *See* 47 C.F.R. §§ 0.201, 0.204, 0.291.

⁷² *SHLB et al. Petition* at 24 (citing bookmobiles, wireless access for drivers and teachers on school buses, the Learning on the Go pilot program).

⁷³ *See* Funds for Learning Order, 26 FCC Rcd at 11145 ¶ 1.

⁷⁴ *See* September 2020 Application Window Order, 35 FCC Rcd 10347, 10351 ¶ 13; 47 C.F.R. § 54.507(c) (“The Administrator may implement such additional filing periods as it deems necessary.”).

⁷⁵ *See, e.g., COVID-19 Gift Rule Waiver Order*, 35 FCC Rcd 2741; *Rural Health Care Support Mechanism*, WC Docket No. 02-60, 35 FCC Rcd 2922 (Wireline Comp. Bur. 2020) (waiving RHC program deadlines due to the COVID-19 pandemic).

VI. CONCLUSION

The Commission should grant the SHLB et al., Colorado and Nevada petitions, issue the requested declaratory ruling, authorize the use of reserved E-rate funds, grant the requested waivers as necessary, and direct USAC to open a new application window in order to expand broadband access and support remote learning during the COVID-19 pandemic. The Commission has clear legal authority to grant the requested relief and the Wireless Bureau should do so immediately on delegated authority. American education is in a state of emergency that requires immediate action to address the remote learning gap. The work done by schools and libraries during this pandemic—with the Commission’s help through granting of these petitions—could serve as the blueprint for bridging the homework gap in the years to come and bolster education in the U.S. for the modern era. The Commission can and should take this common-sense step to bridge the homework gap as soon as possible.

Respectfully submitted,

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