Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of: ADDRESSING THE HOMEWORK GAP THROUGH THE E-RATE PROGRAM	WC Docket No. 21-31

COMMENTS OF

THE E-RATE MANAGEMENT

PROFESSIONALS ASSOCIATION

INTRODUCTION & SUMMARY

The E-Rate Management Professionals Association (E-mpa)® is an association of E-rate professionals whose mission is to promote excellence and ethics in E-Rate professional management and consulting through certification, education and professional resources. E-mpa appreciates the opportunity to comment on this extremely important and timely petition.

E-mpa supports the SHLB petition for allowing the use of E-rate funds for immediate support of remote learning during the COVID-19 pandemic. However, we also believe it is critical to make changes necessary for long term and sustainable support of the E-rate program.

E-mpa wholeheartedly supports the principle that Internet access is necessary for all Americans and critical for all students. The COVID-19 pandemic has forced us to alter our view of students struggling to learn without both a reliable, high-speed Internet connection and a device with which to connect. No longer are they merely at a disadvantage; they are now completely left out of the educational process. The COVID-19 pandemic has exacerbated the digital divide and the homework gap has become the learning gap. The learning gap that results from no access or no affordable access falls directly within the mission of the Universal Service Fund whose mission is to provide affordable access to information services.

There are many issues pertinent to the transition from "education to the school building" to "education to the student" learning. While the issues of Internet access and a device with which to connect are simply defined but logistically complicated, there are also issues pertinent to the infrastructure at the school or library which must be addressed. Because of the dispersed, remote nature of the student base, device and account management have become exponentially more challenging, Internet bandwidth has become over-subscribed, and Internet security has become imperative.

A long term, sustainable approach is needed for both the Lifeline and E-Rate programs to address closing the learning gap. Short-term measures are helpful but will not solve the problem that existed in 2019, was magnified in 2020, and became critical in 2021.

Finally, the COVID-19 pandemic has brought to the forefront the urgent need to overhaul the contribution methodology. Addressing the problems of digital equity will not be inexpensive. Without broadening the contribution base, the fund can only partially support the initiatives that will be suggested.

ELIGIBLE EQUIPMENT AND THEIR COSTS

We believe that a narrow focus should be provided for the pandemic period to fund off-campus access to broadband services for students, staff, and patrons who lack adequate home Internet Access. During the pandemic, a wide range of businesses, non-profit organizations, and others have contributed resources to schools and libraries. The CARES Act has also provided significant funding along with the recently passed Consolidated Appropriations Act, 2021. E-Rate funds are limited, so use of any excess E-Rate funding should be carefully considered and provided within the purpose of the fund. Therefore, we support a narrow range of services to ensure funding is used wisely and in the best manner to support the greatest number of students and patrons in need during the pandemic. The reason to use the E-Rate program is that schools and libraries can identify those students and patrons who have been cut off from functioning in day-to-day society by lack of access to the Internet. When a local school district determines which students need support, they are in a truly "boots on the ground" setting and can identify who needs a device, who needs discounted Internet Access, and who needs both a device and Internet. The school or library is able to balance funding from other sources to ensure duplicate funding is not provided to the same student or household and are able to structure recurring Internet service support so that funding is not all provided for a few months when it could have been properly aligned to cover multiple months. For example, the school district who has funding from a service provider in their area can take advantage of low-cost service that may be available for 3 months, then apply for E-rate "pandemic" funding to fill in service for the next 3 months during the pandemic. If the

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funding did not go through the school, it is possible that the same household would receive support from the USF for the same 3 months as the local Internet provider gave discounted rates; then months 4-6 the household would have to pay full cost.

The eligible equipment and services should be those proven to provide Internet Access for the student at home where the costs can be tracked and audited. Monthly recurring services for Internet Access as well as wireless hotspots, and Internet-enabled devices should be included.

Solutions that provide Internet Access by extending the reach of Internet already provided to the school is a very affordable way to provide access to underserved areas and provides a long-term, sustainable solution. Fixed or mobile wireless towers are much more expensive but there are wireless antennas that are very affordable. These services could be made available within a category 2 budget framework where costs are capped based on student population. In the same manner as category 2 products and services are funded, a "category 3" budget for providing Internet Access specifically for student education or library access would be an excellent way for anchor institutions to provide access. It would be important to narrow these services to only school or library access so that they do not compete with Internet and telecommunications providers.

COST EFFECTIVE PURCHASES – COMPETITVE BIDDING

E-MPA supports SHLB's position that the competitive bidding rules should be waived for the purposes of this petition. Services funded should be subject to existing E-Rate document retention requirements and audits similar to the payment quality assurance program. Oversight is essential to limit waste, fraud and abuse. We do not believe that these services should have increased document or audit requirements.

FUNDING AND PRIORITIZATION

Funding should be made available in a funding window in the same manner as the 2nd filing window for FY2020. Sufficient time needs to be provided for a 14-day window and at least 14 days for filing. Prioritization should be based on rurality and E-Rate discount with rural schools and libraries with the highest discount rates receiving the highest priority. Funding would continue to each discount band with the rural funded first then urban within each band. If funding runs out in a discount band's rural or urban group, funding would be pro-rated in the final group. Other methodologies could be considered but this works best in providing funding to the most needy and rural schools and libraries first.

TIMING

Since significant relief has already been provided and expenditures paid for, we recommend that the funding be available on a prospective basis beginning at the end of the extra filing window through the 2021-2022 school year.   This will provide the needed relief to sustain support for services and equipment where prior funding has ended but services and equipment are still needed during the pandemic. The funding needs to continue until the later of June 30, 2022 or the end of the pandemic when the national emergency is rescinded. To avoid duplication of limited funds, it is essential that the funding for schools or libraries include certifications that the billed entity has measures in place to avoid duplication. This should be an auditable certification that clearly identifies funding that has been received by the entity and measures taken to prevent duplication of funding. As we stated earlier, this is one of the advantages of using the E-rate program since the local school district or library will have first-hand knowledge of who is receiving funding from the various programs. The FCC will also need to provide transparency for programs such as the Emergency Broadband Benefits Program to enable the school or library to know which households in their district or library area are receiving EBB support.

LEGAL AUTHORITY

We agree with the arguments already set forth by SHLB and Colorado[1], allowing E-Rate funded off-campus support for inadequate Internet access at home during the pandemic.

However, with the exception of Internet on buses (no funding cap) and possibly a "Category 3" budget for fixed or mobile wireless towers and antennas where funding amounts could be capped, we believe support in response to the SHLB petition should be limited to provide off-campus support only during the pandemic.

THE CHALLENGE - DIRECT COSTS

According to Educationdata.org[2] there are 50.8 million public school students enrolled in the United States in 2019, spread across 16,800 districts.

The Pew Research Center[3] released a study on March 16, 2020, that found that 12% of U.S. teens do not have access to a desktop or laptop computer at home. Broken down by ethnicity, for white teens, the figure drops to 9%, but rises to 11% for black teens, and 18% for Hispanic

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[1] Petition for Expedited Declaratory Ruling and Waivers filed by the Schools, Health & Libraries Broadband Coalition, et al., WC Docket No. 13-184 (filed Jan. 26, 2021), https://www.fcc.gov/ecfs/filing/101260036427898(SHLB Petition); Petition for Waiver on behalf of the State of Colorado, WC Docket No. 13-184 (filed Sept. 2, 2020), https://www.fcc.gov/ecfs/filing/10902218280692 (Colorado Petition)

[2] Educationdata.org, K-12 School Enrollment & Student Population Statistics, https://educationdata.org/k12-enrollment-statistics

[3] Pew Research, "As schools close due to the coronavirus, some U. S. students face a digital 'homework gap'", Brooke Auxier and Monica Anderson, March 16, 2020, https://www.pewresearch.org/fact-tank/2020/03/16/as-schools-close-due-to-the-coronavirus-some-u-s-students-face-a-digital-homework-gap/

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teens. Broken down by family income level, only 4% of teens from a household with an income of $75,000 or more have no laptop or desktop computer, but this rises to 11% if the family's income is $30,000-$74,999k, and rises to 25% if the family's income is less than $30,000.

The same Pew Research study shows similar statistics for home Internet access. 12% of U.S. teens have no home Internet access, with higher rates for minorities and poor respondents.

Assuming the distribution of Internet access and home computers/laptops holds true across all age groups, then there are 6,096,000 (50,800,000 * 12%) students without Internet access and no computer or laptop to use at home. Other studies have held those figures higher.

Assuming a benchmark figure of $250.00 for an average Chromebook (The range was $160.00 to $650 at a local retailer), the cost to outfit 6,096,000 students with an average Chromebook would be $1,524,000,000, with no provisions for repair, replacement, or attrition.

Internet access is somewhat more complicated. Many Internet providers are offering $10.00/month specials during the COVID-19 pandemic, but those programs have relatively small data caps, the families bear the cost of any overages, and the programs only cover families in the normal areas of service, omitting large swaths of remote locations currently unserved by traditional providers. Even at that price, it would $731,520,000 per year (6,096,000 * $120.00) to cover those students.

Companies offering the lower rates are to be commended for "pitching in" during this time of crisis.

While the estimate for the initial cost of Chromebooks for those families without a desktop or laptop computer is reasonable, it is not representative of the total cost of ownership for an ongoing program. Further, although many families' connectivity issues can be solved with the corporate generosity of many Internet providers, there remains a significant number which cannot, and for whom basic Internet bandwidth remains an elusive and expensive goal.

The issue of an Internet connection and a device to use must both be solved to achieve the overarching goal of providing affordable access to all students to learn remotely, and that the sum of $731,520,000 for Internet access and $1,524,000,000 for devices for a total of $2,255,520,000 is a conservative estimate.

Further, while Internet providers should be lauded for their willingness to provide connectivity at discounted rates during the pandemic, it is also understood that these rates they are charging will eventually return to their normal prices and a solution to provide affordable access over time is necessary.

<p style="background:#2b7bd4;color:white;padding:4px;font-weight:bold;">UNANTICIPATED CONSEQUENCES</p>

According to a staff member of the Savannah Chatham County Public School System (SCCPSS), Savannah, Georgia, "The majority of educators within the SCCPSS believe that education has profoundly and permanently changed, and that change requires a retooling of the belief that the public school system can shoulder all costs associated with providing equitable access."

E-mpa spoke at length with a member of the SCCPSS staff to understand some of the challenges that districts are facing due to the pandemic. SCCPSS has approximately 36,000 students, and 2,600 faculty and 5,100 staff, yielding a roughly fourteen to one student to teacher ratio, and a roughly five to one student to staff ratio. There are nine K-8 schools, one Pre-K, twenty-five elementary schools, eight middle schools, eleven high schools, four "other" schools, and two NIFs, spread out across Chatham County but concentrated in Savannah proper.

At the onset of the pandemic SCCPSS had a 3:1 student to device ratio. Much to their credit, SCCPSS anticipated some of the challenges they would be facing and took steps to move to a 1:1 student to device ratio, providing one device for every student. They currently supply iPads to all of their students from Pre-K to 2nd grade, Chromebooks to all of their students from 3rd to 12th grades, and Windows laptops for their high school students in a technical track, using CARES funds for a significant portion of the costs.

The staff member indicated that many of the students' families have contracts with local providers at a reduced rate for Internet access, and that they, not SCCPSS, have accepted any data overage fees. In addition, SCCPSS has outfitted 20 "Smart Buses" and parks them in neighborhoods with limited or no Internet Access, at a cost of $30.00/month/bus, plus data overage charges. Finally, SCCPSS has distributed 72 hotspots, at a cost of $12.00/month/device

plus overages, and has 5,600 MiFi devices on order through T-Mobile's **Project 10Million** which they will distribute upon receipt.

SCCPSS absorbs the costs associated with the basic service and any data overages from Smart Buses and other district-provided WiFi services, but has no affiliation with any arrangements between Internet providers and families directly, neither for the basic Internet nor any overages.

At the onset of the pandemic, electronic goods became scarce as supply chains were disrupted by manufacturing slowdowns or shutdowns. An order for Chromebooks placed in February/March was fulfilled in August, but a subsequent order for Chromebooks placed in September was fulfilled in November, and an order for iPads placed in November was fulfilled in late December/early January.

SCCPSS personnel also shared the following:

- It is significantly more difficult and time-consuming to maintain student devices scattered across the district in individual homes than located within schools;
- The workload associated with the initial set-up of student devices, especially with single sign-on, i.e., every student has an individual user account and password, is daunting;
- Single sign-on and the District's desire to filter Internet access requires the district to run all Internet traffic through the district's Internet connection in order to pass through the firewall and district filters. This functionally cuts the bandwidth of their Internet connection in half. SCCPSS personnel report Internet slowdowns and intermittent stoppages due to over-subscription.

In summary:

- One-to-one computing to a dispersed user population to service the student wherever learning takes place is significantly more complicated, time-consuming, and resource intensive than the traditional model of the learning taking place on school property.
- Already stretched school resources, both fiscal and personnel, are at the breaking point.

While E-mpa agrees that much of the costs described herein can be properly offset by the Universal Services Fund, we are less certain that the Schools and Libraries Program is the proper vehicle to do so. There are a wide variety of solutions included in the comments submitted by SHLB and the other organizations. While some of the solutions should be properly assigned to the Schools and Libraries Division, some should not.

The recommendations in SHLB's petition for utilizing E-rate funds should be limited only to support during the COVID-19 pandemic. The use of E-rate funds for the additional purposes listed although desperately needed, significantly increases the costs borne by the E-Rate program and therefore can only be sustained in the short term.

Solutions and associated tasks concerning activities that take place on school or library property should be assigned to the E-Rate program, while solutions and associated tasks pertaining to Internet access to the home should be delegated to an expanded Lifeline program.

The E-Rate program is structurally designed to process 70,000 to 80,000 applications per year, while the Lifeline Program is structured to efficiently process millions of smaller applications. According to Lifelinefacts.com[4], "…the Lifeline participation rate at the end of September 2015 was approximately 27%. This means that, while over 46 million households qualified for Lifeline benefits, only about 12.6 million households were enrolled in the program." Current FCC rules prohibit a household from receiving a discount on more than one type of service (land line, cell phone, or data). E-mpa recommends that this rule should be immediately rescinded.

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[4] Lifelinefacts.com, https://lifelinefacts.com/lifeline-facts

LIFELINE PROGRAM

The Lifeline program is a more appropriate long-term solution for the issue of bringing Internet connectivity to the approximately 6.1 million K-12 students who are currently without affordable access.

Increasing the Lifeline program allowance for broadband to accommodate the demand needed by remote learning would place no additional burden upon already stretched school personnel and would require no waivers of competitive bidding requirements (since Lifeline is an "allowance" program). Households include non-students who also need Internet access to perform their jobs and function in today's information society.

The Lifeline Internet "allowance" would need to be adjusted upwards to cover multiple services and there will need to be exceptions carved out for students so remote that only more expensive satellite Internet will reach them, but these are solvable problems.

E-RATE PROGRAM

There are a number of rule changes to the E-Rate program which would support the efforts of the schools to deliver and manage services that support remote learning.

ADD SUPPORT FOR DEVICE MANAGEMENT TOOLS

First, as cited above, SCCPSS purchased 24,000 new devices, in order to bring their student to device ratio up to 1 to 1. Each of those devices needed to be logged in, asset tagged, and assigned to a particular student. Each student needed an individual ID and password, and each device needed secure access to the internal network. There are tools designed to assist and accelerate this process and providing E-Rate funding for them would be helpful.

INCREASE BANDWIDTH GUIDELINES

Second, Internet bandwidth requirements have risen sharply since the onset of the pandemic, and school districts across the U.S. have implemented remote access in a similar manner as SCCPSS which diminishes the functional throughput of their existing connections. Many libraries have also had to increase bandwidth to provide for remote access and expanded on-line services. Internet bandwidth guidelines need to be adjusted upwards commensurately.

SUPPORT FOR RESILIENT INTERNET CONNECTIONS

School districts should be allowed to select multiple providers to provide the bandwidth that they need, even if the combination is slightly less cost-effective.

Having multiple connections provides a resilient network which is critical to provide reliable Internet Access regardless of any one outage or cyber-attack. In the traditional model of learning, when both students and teachers were in the same room, an Internet outage was disruptive, but learning did not end. In the current model with remote learners, an Internet outage is catastrophic as learning ends and the remote learner is completely in the dark, especially if the district's Internet access is the sole medium through which learning passes. The District's Internet Access can no longer have a single point of failure. Multiple Internet connections with redundancy and fail over protections should be allowed for school districts who need to provision a resilient network for always on learning.

SUPPORT FOR INTERNET ON BUSES

In the early years of the E-rate program, support was provided for cell phones on buses. Fast forward to current day and the need for learning wherever the student is located is essential. Students in rural areas spend significant time on buses and both urban and rural students spend hours on activity buses. As learning moves from school-based to student-based availability, providing access on buses which students are in transit becomes another critical time for learning. Providing E-rate support for Internet Access on buses has already been proven to be affordable within the existing E-rate funding structure. Studies have been

completed by various stakeholders and provided to the FCC on this topic previously. The SHLB Petition requests that these services be eligible for E-rate support during the pandemic. We recommend, however, that the FCC allow Internet service on buses as eligible for E-Rate funding on an on-going basis. The buses are school property. Therefore, Internet services provided on school property (i.e. buses) should be eligible for E-Rate discount.

SUPPORT FOR SECURE NETWORKS

A secure network is vital to learning. In the current environment with remote learning, an Internet outage stops teaching altogether.   E-mpa does not support opening funding for every type of security offering, but only those that guard against the loss of use of the broadband connection altogether.

Support should be provided for the following specific services:

- o Denial of Service attacks
- o Intrusion Detection
- o Intrusion Prevention
- o Anti-Virus

A network that has been infiltrated with virus, Ransomware, or other attacks is rendered useless and all learning stops. It is no surprise that network security is the number one concern of school districts across the U.S. The FCC needs to act immediately to include these vital services as eligible services for E-Rate funding support. If these services are eligible under Category two, there would be no effect to the anticipated funding demand as these services would fall within the allotted category two budgets.

E-mpa supports the expansion of the contribution base to include all broadband services. We are well aware of the intricacies and long-established telecommunications regulations that are a barrier to this solution. The current contribution model is based on an outdated analog-based methodology applied to a digital world. The stakeholders in this program and believers in universal service who truly understand the purpose that everyone should have universal access will agree that the contribution base needs to be updated. It has been 25 years since the 1996 Telecommunications Act and 87 years since the 1934 Act. This fund is critical for affordable access and needs to be updated so that all broadband providers contribute equitably.

As stated by Acting Chairwoman Jessica Rosenworcel, "While we have come a long way, we still have much more work to do to fully realize the promise of the Act and see connectivity for all Americans." [5]

We highly encourage all of the great minds including leaders within the FCC, service providers, anchor institutions, schools, libraries, and individuals across the country to come together to update the contribution base.   This needs to be done as soon as possible to ensure a sustainable future so the mission can continue to be realized for the present and future generations who depend on this valuable funding for affordable access.

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[5] *Acting Chairwoman Rosenworcel Commemorates 25th Anniversary of Telecommunications Act of 1996*, FCC Statement from the Federal Communications Commission, February 8, 2021, https://twitter.com/hashtag/TelecomActChat

SUMMARY

E-mpa appreciates the opportunity to comment on this critically important proceeding.

The COVID-19 pandemic has permanently changed how students learn and districts function. While we support the short-term and immediate relief requested by SHLB's petition, our comments are tailored toward a longer-term view of the challenges with sustainable solutions.

Connectivity to the student's homes properly falls under the purview of the Lifeline program. With minor modifications, the Lifeline program is the structurally appropriate vehicle to deliver the necessary connectivity to households.

The E-rate program is the appropriate vehicle to deliver services to schools and libraries. E-mpa urges modifications to the E-Rate rules, including:

- Allowing applicants to request funding for goods & services which provide assistance in configuration and account management for remote devices such as Chromebooks
- Allowing multiple providers to provide Internet bandwidth for resilient networks including failover and redundancy
- Increasing the bandwidth guidelines for allowing greater Internet connection speed
- Providing support for Internet Access on buses
- Allowing advanced firewall features limited to features that guard against the loss of the connection

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Finally, E-mpa recommends that a sustainable, long-term approach is needed. We believe the time is now to update the contribution base. All broadband service providers need to contribute to universal service with the result that the contributions are shared equitably by all thereby securing affordable access to information services across the country for many generations to come.

Respectfully submitted:

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February 12, 2021