



June 19, 2014

EX PARTE

Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O’Rielly
Federal Communications Commission
445 12th Street, S.W.
Washington D.C. 20554

**Re: *Modernizing the E-Rate Program For Schools and Libraries,
WC Docket No. 13-184***

Dear Chairman Wheeler and Commissioners Clyburn, Rosenworcel, Pai and O’Rielly:

The Federal Communications Commission has a remarkable opportunity to bring every American school and library into the 21st century – but it needs to take action this summer.

About a year ago, in June 2013, the bipartisan Leading Education by Advancing Digital (“LEAD”) Commission released a five-point blueprint outlining specific actions to accelerate the equitable adoption of digital learning in K-12 education. Our goal is to equip U.S. students with the skills necessary to compete in the 21st century global economy. The LEAD Commission identified inadequate high-speed Internet connectivity in the classrooms as the most immediate and expensive barrier to implementing technology in education – and pointed to E-Rate as the key to solving the infrastructure challenge. Last July, LEAD Commissioners presented at the FCC meeting and applauded the Commission for launching this E-Rate modernization proceeding.

LEAD now respectfully urges the Commission to adopt updated E-Rate rules in time for them to take effect before the next round of E-Rate funding in the spring. We are pleased that the FCC will invest an additional \$2 billion over the next two years, “targeted to address the most urgent Internet upgrade needs of schools and libraries.”¹ It is imperative to update the current E-Rate rules, so these funds can be used to meet urgent needs to expand access to high-speed broadband and improve Wi-Fi and internal connections. **The failure to update the rule now could delay, by another year, the benefits of new technologies to at least 6 million schoolchildren, as well as add to the long-term cost of the program.**²

¹ See FCC News Release, *FCC To Invest Additional \$2 Billion in High-Speed Internet in Schools and Libraries* (Feb. 3, 2014), at <http://www.fcc.gov/document/fcc-boost-investment-broadband-schools-libraries-2b>.

² Tom Wheeler, FCC Chairman, *Helping American Students Compete in a Digital World*, Official FCC Blog (Jan. 24, 2014), available at <http://www.fcc.gov/blog/closing-wi-fi-gap-america-s-schools-and-libraries>.

For that funding to reflect the modernization that nearly all agree must happen to accelerate a transformation of education, the FCC must adopt an Order modernizing the program now in order for the formal rulemaking process to be completed and enacted by the end of the summer.³ Delaying action, on the other hand, will result in higher costs for the program in the long term, as the current framework does not incorporate incentives to use the kinds of best practices that result in far more efficient purchasing of internal connections and connectivity.

In addition to the aforementioned policy reforms, there may be a need for additional funds at some point in order to meet the goal of connecting 99 percent of students by 2018. As set forth below, filings in this proceeding, data found both in the LEAD Report and research and in other organizations' research, and the FCC's May 6th Workshop ("Workshop") support all these points.

EXPERTS AGREE ON THE URGENT NEED TO EXPAND ACCESS TO WI-FI FOR SCHOOLS AND LIBRARIES.

While we believe a number of updates are important to adopt immediately, the highest modernization priority is to change the way we fund Wi-Fi, as it is the largest current gap preventing our students from enjoying the benefits of high-speed Internet in the classroom. Throughout the roundtable discussion at the FCC's May 6th Workshop, participants stressed that the importance of Wi-Fi is rapidly increasing, and that the future of digital learning depends not only on high-speed broadband *to* the schools but also *within* classrooms and libraries as well.⁴

Likewise, the recent Consortium for School Networking and EducationSuperHighway joint report demonstrates that a significant investment in LAN/Wi-Fi is needed to realize the education opportunity of ubiquitous devices in the classroom.⁵

Due to the rules for allocating funding under the existing system, however, Wi-Fi connections have seen the greatest underinvestment in recent years. Under the FCC's two-tier priority system for allocation of E-Rate funds, Wi-Fi is considered a second-tier "Priority 2" technology. Because there are insufficient E-Rate funds to cover the Priority 1 requests, Wi-Fi is often left unfunded.

There is already broad consensus that the current Priority 2 system needs to be modernized to enable a higher level of funding for internal connections.⁶ Sixty percent of schools lack the internal connections necessary to enable the kind of transformation of education the LEAD Commission and

³ The rules must be published in the Code of Federal Regulations, the Office of Management and Budget must approve the new forms under the Paperwork Reduction Act, and USAC must make the necessary adjustments.

⁴ See, e.g., Transcript of May 6, 2014 E-Rate Modernization Workshop ("Workshop Tr.") at 15, 32, 57-58, available at <http://apps.fcc.gov/ecfs/document/view?id=7521124645>.

⁵ See Consortium for School Networking & EducationSuperHighway, *Analysis of Costs to Upgrade and Maintain Robust Local Area Networks for all K-12 Public Schools*, available at http://www.educationsuperhighway.org/uploads/1/0/9/4/10946543/esh_cosn_lan_wifi_analysis.pdf.

⁶ See, e.g., City of Boston Reply Comment at 5, WC Docket No. 13-184 (Nov. 7, 2013); Comcast Comment at 6, 23-26, WC Docket No. 13-184 (Sept. 16, 2013); Education Coalition Reply Comment at 18, WC Docket No. 13-184 (Nov. 8, 2013); Hewlett-Packard Comment at 15, WC Docket No. 13-184 (Sept. 16, 2013); Alabama State Department of Education Comment at 9, 12-14, WC Docket No. 13-184 (Sept. 16, 2013).

many others have called for. Yet in the most recent year, E-Rate did not provide any funding for internal connections.⁷

With the \$2 billion of unallocated funds ready to be invested, we have a once-in-a-generation opportunity to make a huge difference quickly. If the FCC acts quickly to modernize the prioritization process, the Commission could reach more than double the number of students it would otherwise serve under the current rules.

According to internal staff reports, if the FCC were to allocate \$1 billion to internal connections under the current rules, it would reach fewer than 4 million students, mostly in urban areas. Yet testimony at the workshop demonstrated that it is possible for the dollars to go much farther and serve far more students if the FCC updates the rules. For example, testimony from experts in North Carolina showed how the state was able to purchase Wi-Fi connections at approximately \$2,000-\$2,200 per classroom. This is significantly less than a number of other school systems have paid. Indeed, if one assumes, pursuant to the CoSN/ESH Report, an average of 20 students per classroom, and one further assumes a 70 percent E-Rate discount, the average cost to deliver Wi-Fi would be about \$77 per student. Thus, if the E-Rate program were to be modernized to incent improvements similar to those seen in North Carolina and several other states, the number of students served by the same allocation would be well in excess of 10 million, a 250 percent increase.⁸

Increasing the number of students served by internal connections would also accelerate the transformation of all classrooms by increasing the incentive of players in the education ecosystem to design, develop, and adopt compelling and effective educational tools that take advantage of modern technology. It will also make a difference in the long-term total cost-effectiveness of the program as it would accelerate the cost savings.

To achieve such savings requires a number of actions. The current system, by providing both scarce and uncertain allocations, creates problematic incentives to purchase internal connections inefficiently, as districts are uncertain, when, if ever, funding will be available. Providing a clearer and more certain path for funding will enable school districts and libraries to plan and purchase more efficiently.

The workshop also provided evidence about how managed Wi-Fi services may offer a viable model for quickly rolling out ubiquitous Wi-Fi services in districts with limited technical expertise.⁹ This is a particularly valuable option for smaller and more rural schools. To the extent that these services are cost-effective compared to more traditional options, E-rate should support those districts that have identified this option as their best option.

For those districts that choose to buy and operate their own equipment, we believe there is value in the FCC's pursuing a bulk purchasing approach and determining an appropriate Wi-Fi metric for support for libraries. These themes are consistent with previous LEAD Commission recommendations that accomplishing expanded access to Wi-Fi is best achieved by phasing out or otherwise modifying the current priority system that limits support for internal connections. The LEAD

⁷ Tom Wheeler, FCC Chairman, *Helping American Students Compete in a Digital World*, Official FCC Blog (Jan. 24, 2014), available at <http://www.fcc.gov/blog/closing-wi-fi-gap-america-s-schools-and-libraries>

⁸ *Id.*

⁹ See Workshop Tr. at 52.

Commission also believes the program should take steps to encourage bulk purchasing of services and equipment to take advantage of volume discounts.¹⁰

A. BROADBAND CONNECTIVITY NEEDS OF SCHOOLS AND LIBRARIES CAN ONLY BE MET THROUGH CRITICAL UPDATES COUPLED WITH MORE FUNDS FOR THE PROGRAM.

While many groups including LEAD agree the E-Rate program would benefit from additional funds, it became clear from the May 6th Workshop discussion that more money alone would not go far enough to meet the needs of schools and libraries. Numerous panelists emphasized that E-Rate beneficiaries must have more options to choose from, as well as the ability to lower the cost of bandwidth through increased buying efficiency.¹¹ For instance, evidence from the panel suggests that the median cost of Internet access is \$22 per Mbps per month, and the average cost of a one Gigabit wide area network (WAN) connection is \$1,242 per month. On the other hand, some schools, by using best-practices, have been able to buy far more efficiently, achieving prices of approximately \$3 per Mbps per month for Internet access and \$750 per connection per month for a 1 Gigabit WAN connection. The panelists, and the LEAD Commission, believe that the E-rate program should be designed incent the use of best practices to help drive prices down to that level or lower.¹²

Of course, access to fiber is critical to achieving affordable, high-speed connectivity and the panels demonstrated ways to increase the affordability. In Pittsburgh, for example, transitioning from T1 connections to fiber has allowed schools in the area to dramatically increase their bandwidth over time to meet the needs of students.¹³ Furthermore, states like Mississippi and North Carolina have achieved the WAN target price of \$750 per Gigabit in many districts by aggregating demand to negotiate better rates. Competition plays a critical role in driving down prices as well; many state and district leaders in the Workshop discussed the price efficiencies that could be achieved through a competitive bidding process. For example, EducationSuperHighway's report showed that the average cost of a 1 Gigabit WAN connection is about 50 percent lower from competitive providers.¹⁴

Immediate action to make such efficiencies more wide-spread is critical for the long-term success of the E-Rate program, for even where the network is physically accessible and would allow schools to reach bandwidth goals as a technical matter, affordability continues to present a major challenge for many schools. As EducationSuperHighway recently reported, many schools have access to the requisite infrastructure but actually purchasing the needed level of Internet service remains unaffordable.¹⁵ A few successful cost-saving models discussed at the Workshop include utilizing

¹⁰ See Reply Comments of the LEAD Commission, WC Docket No. 13-184 (filed November 8, 2013) (“LEAD Comments”); LEAD Commission, *Paving a Path Forward for Digital Learning in the United States*, (issued Sept. 10, 2013) (“LEAD Report”) at www.leadcommission.org

¹¹ See Workshop Tr. at 43-44, 64, 85.

¹² See Workshop Tr. at 59.

¹³ *Id.*

¹⁴ See EducationSuperHighway, *Connecting America's Students: Opportunities for Action – An Analysis of E-Rate Spending Offers Key Insight for Expanding Educational Opportunity* at 29, available at http://www.educationsuperhighway.org/uploads/1/0/9/4/10946543/esh_k12_e-rate_spending_report_april_2014.pdf.

¹⁵ *Id.* at 13-16.

existing research and education networks, statewide master contracts, and regional and state consortium purchasing. Each of these solutions has helped schools lower their bandwidth costs.¹⁶ Other suggested solutions proposed, and which we believe are worth consideration, include reference pricing for services,¹⁷ transparency in pricing,¹⁸ streamlining USAC reporting requirements,¹⁹ and an upgrade fund for schools that presently lack the necessary infrastructure to achieve bandwidth goals (and for whom current E-Rate discounts are thus not enough).²⁰

B. EXPERTS AGREE ON THE SIGNIFICANT BENEFITS OF CONNECTING CLASSROOMS AND LIBRARIES TO HIGH-SPEED BROADBAND.

The May 6th Workshop further highlighted the need for expedient action. In the first panel discussion, experts provided several examples of how high-speed broadband has provided astounding benefits for schools and libraries.²¹

The panel also agreed that the needs and capabilities of schools and libraries are fundamentally changing, and that the E-Rate program must reflect these changes. As noted in our previous filings, LEAD agrees with the State Education Technology Directors Association (“SETDA”), EducationSuperHighway, President Obama’s ConnectED initiative, and many others, that the goal should be to move schools and libraries to 100 Mbps per 1000 students/staff by 2015 and 1 Gbps per 1000 students/staff by 2017.²²

This robust connectivity enables schools and libraries to fully leverage digital learning opportunities including the ability to conduct computer based, online assessments that are a requirement for the two major consortiums developing Common Core State Standards Initiative (“Common Core”) assessments, the Partnership for Assessment for Readiness for College and Careers (“PARCC”) and the Smarter Balanced Assessment Consortium.²³ PARCC, for instance, recommends that schools have either wired or wireless connectivity.²⁴ Common Core state assessments are set to begin in the 2014-2015 school year, making it even more critical that schools are equipped with the bandwidth and Wi-Fi capabilities as soon as possible.

These findings are consistent with the LEAD Commission Blueprint and Report and Comments, which articulate that the E-Rate program should be updated to reflect the realities and needs of students and schools today by focusing on high-speed bandwidth, supporting next generation

¹⁶ See, e.g., Workshop Tr. at 62-64, 80.

¹⁷ See, e.g., Workshop Tr. at 81.

¹⁸ See, e.g., Workshop Tr. at 6, 60, 76, 82.

¹⁹ See, e.g., Workshop Tr. at 11.

²⁰ See, e.g., Comments of EducationSuperHighway, WC Docket No. 13-184 (Sept. 16, 2013) at 14-20.

²¹ See Workshop Tr. at 15-17.

²² See EducationSuperHighway Report, *supra* note 14 at 3.

²³ See <http://www.parcconline.org/about-parcc> and <http://www.smarterbalanced.org/about/>

²⁴ See PARCC, *Technology Guidelines for PARCC Assessments v 4.2* (May 2014 Update), available at https://www.parcconline.org/sites/parcc/files/Technology%20Guidelines%20for%20PARCC%20Assessments%20v%204_2%20May%202014.pdf

models such as online and blended learning, increasing price transparency, and providing incentives to purchase bandwidth more efficiently among other key goals.²⁵

CONCLUSION

In sum, the record is clear that we must modernize E-Rate by prioritizing internal connections and creating a more efficient program before August. These changes – which are consistent with the views expressed in the bipartisan correspondence from Congress, bipartisan Governors, the United States Conference of Mayors, the National Association of Counties, a group of 50 CEOs of major American companies, last week’s broad array of 100 leading education organizations and stakeholders, and the 100 education technology innovators announced this week– should be acted on now.

Time is of the essence if we are to achieve the goal of connecting 99 percent of American students to high-speed Internet by 2018 – and create significant long-term gains for our schools and libraries, our students, a tech-savvy workforce, and a competitive U.S. economy. We urge the FCC to act this summer to modernize the E-Rate program in a way that that would enable those goals to be achieved.

Respectfully submitted,

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Margaret Spellings
James Steyer
LEAD Commission Co-Chairs

²⁵ See LEAD Report, *supra* note at 10.