

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

In the Matter of)	
)	WC Docket No. 11-42
Second Further Notice of Proposed Rulemaking)	
Order on Reconsideration)	WC Docket No. 09-197
Second Report and Order)	
and Memorandum Opinion and Order)	WC Docket No. 10-90

Comments of the Education & Libraries Networks Coalition (EdLiNC)

I. Introduction

The Education and Library Networks Coalition (EdLiNC), a group comprised of the leading public and private education associations and the American Library Association that was formed in 1995 to advocate for the interests of schools and libraries in the Telecommunications Act of 1996, is pleased to provide comments on the Commission’s Second Further Notice of Proposed Rulemaking (the Notice), which we hope will modernize the crucial Lifeline program to help students across the nation gain access to broadband services in their home.¹ EdLiNC recognizes the importance of and supports the Lifeline program’s continued mission to provide access to telecommunications and information services to low-income consumers nationwide. We believe that the time has come to include broadband as an eligible and supported Lifeline service.

II. EdLiNC supports the Modernization of the Lifeline Program to Include Essential Broadband Access

Over the years, the Commission has seen fit to evolve the Lifeline program “from a wireline-only program, to one that supports both wireless and wireline voice communications.”² Expanding Lifeline to cover home broadband connectivity seems to us a natural and necessary extension of Lifeline’s mission to ensure that all low-income citizens have access to modern communications services. Access to broadband at home is absolutely essential for basic communications in the 21st Century, and has become particularly important to education and

¹ See Appendix A for complete list of EdLiNC members.

² Second Further Notice of Proposed Rulemaking, Order on Reconsideration, Second Report and Order, and Memorandum Opinion and Order, FCC 15-71, (June 22, 2015) at page 3, paragraph 1.

learning. EdLiNC believes that all students need and deserve on-demand access to broadband in their homes.

Over the past 15 years, the use of digital technologies and bandwidth demand has grown by leaps and bounds in public and private schools across the country. According to a 2011 report, entitled “The Rise of K-12 Blended Learning,” an estimated 45,000 K-12 students took an online course in 2000 and in 2009 that number had increased to 3 million students. The report also cited findings that projected by 2019, 50 percent of all high school courses will be delivered online.³ Data from the National Center for Education Statistics, found that by 2009, the national ratio of computers to students in all public schools was 5.3:1 compared to 12:1 in 1998, showing dramatic growth in the number of school devices.⁴ In fact, a recent study by Futuresource Consulting, Ltd. projects that, by 2016, 54% of students and teachers will have access to a school-issued personal computing device, a 31 point gain since 2012.⁵ Finally, it is important to note that the Commission recognized this technological explosion in schools last year when it approved an E-Rate modernization order that aims to ensure that all classrooms and libraries have sufficient WiFi to meet online and digital needs within five years.

Still, the question remains, what happens to student access to technology and the Internet when the school day ends? Do students have access to the necessary technology and bandwidth after school to complete digital homework assignments and conduct academic, employment or personal research, often through online homework and research resources brokered by the library? Are their parents able to connect digitally with their children’s teachers and administrators or even access the school website? Unfortunately, for too many students and families, the answer is “no,” creating what Commissioner Rosenworcel has aptly christened a “homework gap.”

³ Michael B. Horn and Heather Staker, *The Rise of K-12 Blended Learning*, The Christensen Institute, January 2011, <http://www.christenseninstitute.org/wp-content/uploads/2013/04/The-rise-of-K-12-blended-learning.pdf>, (last accessed August 19, 2015), see footnote 1, Clayton M. Christensen, Michael B. Horn, and Curtis W. Johnson, *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns* (New York: McGraw-Hill, 2008).

⁴ Lucinda Gray, Nina Thomas, Laurie Lewis, *Teachers’ Use of Educational Technology in U.S. Public Schools: 2009*, U.S. DEPARTMENT OF EDUCATION, NATIONAL CENTER FOR EDUCATIONAL STATISTICS, May 2010, <http://nces.ed.gov/pubs2010/2010040.pdf>, (last accessed August 19, 2015).

⁵ Michele Molnar, *Half of K12 Students to Have Access to 1:1 Computing by 2015*, EDUCATION WEEK, February 24, 2015, http://blogs.edweek.org/edweek/marketplacek12/2015/02/half_of_k-12_students_to_have_access_to_1-to-1_computing_by_2015-16_1.html, (last accessed August 21, 2015).

According to data released by the Federal Communications Commission's broadband task force in 2009, about 65 percent of students used the Internet at home to complete their homework.⁶ Today, approximately 70 percent of teachers assign homework that requires access to broadband. However, a recent Pew Study found that one-third of households do not subscribe to broadband services, making it nearly impossible for students in those households to complete the assigned digital homework.⁷ Further, while 92 percent of households with incomes between \$100,000 and \$150,000 have broadband service, the adoption rate is only 47 percent for households with income below \$25,000.⁸ In California, for example, 21% of all Californians lack Internet access at home, with 35% of households earning less than \$20,000 unconnected and 32% of households consisting of parents with children under 18-years old having no computers.⁹

At the school district level these numbers become even worse. A recent study conducted by the Pew Research Center found over 50% of educators in low-income districts reported that the lack of at-home-access to technology has prohibited the advancement and implementation of digital learning initiatives.¹⁰ A 2014 article in the Miami Herald reported that the Miami-Dade School District estimated that 25% of its students lacked home Internet access.¹¹ A 2015 article suggested that one-third of all K-12 students in the Bronx cannot access the Internet at home.¹² Even in relatively well-heeled Fairfax County, Virginia, 8% of students, or 12,000 students, do

⁶ See FCC and Broadband.gov National Broadband Plan, *September Commission Meeting*, September 29, 2009, at page 83, https://apps.fcc.gov/edocs_public/attachmatch/DOC-293742A1.pdf, (last accessed August 19, 2015).

⁷ John B. Horrigan, *The numbers behind the broadband 'homework gap'*, PEW RESEARCH CENTER, April 20, 2015, <http://www.pewresearch.org/fact-tank/2015/04/20/the-numbers-behind-the-broadband-homework-gap/>, (last accessed August 19, 2015).

⁸ Thom and Camille Ryan, *Computer and Internet Use in the United States: 2013*, American Community Survey Reports, ACS-28, U.S. Census Bureau, Table 1 (2014) (ACS 2013) available online at: <http://www.census.gov/history/pdf/2013computeruse.pdf>.

⁹ California Emerging Technology Fund/The Field Poll, *Wide Differences in Broadband Connectivity Across California Households*, June 16, 2015, <http://www.cetfund.org/files/Final%20Field%20Release%20and%20PPT.pdf>, (last accessed August 21, 2015).

¹⁰ Kristen Purcell, Alan Heaps, Judy Buchnan, and Linda Friedrich, *How Teachers Are Using Technology at Home and in Their Classrooms*, PEW RESEARCH CENTER, February 28, 2013, www.pewinternet.org/2013/02/28/how-teachers-are-using-technology-at-home-and-in-their-classrooms/, (last accessed August 19, 2015).

¹¹ Douglas Hanks, *With no Internet at home, Miami-Dade kids crowd libraries for online homework*, MIAMI HERALD, October 12, 2014, <http://www.miamiherald.com/news/local/community/miami-dade/article2679035.html#storylink=cpy>, (last accessed August 21, 2015).

¹² Daisy Torres, *Without a Computer, Homework Extra Tough*, NORWOOD NEWS, January 7, 2015, <http://www.norwoodnews.org/id=16623&story=without-a-computer-homework-extra-tough/>

not have Internet access in their homes.¹³ EdLiNC is concerned that the lack of broadband at home is limiting digital opportunity—hindering the benefits of digital learning and communications between parents and educators, slowing the advancement of education for students and their families and further widening the equity gap that exists between students in low-income communities and those in more affluent communities.

Beyond the numbers, individual stories of students and schools struggling with the homework gap abound. A recent EdWeek article profiled a South Carolina high school senior who lived in an “Internet dead zone” and was thus unable to use her school-issued device to view online assignments, complete daily homework, or do research. According to the article, unless her mother was able to take her, her twin brother, and her two younger siblings to the library, homework often went uncompleted. It was only when their school district provided the family and others similarly situated with WiFi that the situation improved and the student’s mother indicated that she could rest easier knowing they had Internet at the house.¹⁴

Lack of Internet connectivity is not confined to outlying areas of South Carolina, though; many students in the largest city in the United States must confront the same issue. One Bronx, New York, student profiled in a local news article indicated that he struggled with digital homework assignments because he had no home connectivity. He stated that he felt “so stuck sometimes” because he didn’t have enough time to complete the homework in the computer lab after school and couldn’t afford another failing grade. A fellow student, who also lacked access to the Internet at home, explained how he was falling behind in school due to the issue: “If we get homework on the computer and I don’t complete it on time, it will not be accepted and I will get a zero on the assignment, which takes out a lot of points.”¹⁵

¹³ Erik Hovland, *Fairfax County vs. United States, Household Internet Accessibility and Median Income*, Source: All income and internet access data provided by U.S. Bureau of the Census, 2013 American Community Survey, one-year summaries and Public Use Micro Sample (PUMS), ECONOMIC, DEMOGRAPHIC, AND STATISTICAL RESEARCH, FAIRFAX COUNTY DEPARTMENT OF NEIGHBORHOOD AND COMMUNITY SERVICES, March 2015, http://www.fairfaxcounty.gov/demogrph/datavis/datavis_pdf/internet_access_datavis.pdf, (last accessed August 21, 2015).

¹⁴ Michelle R. Davis, *Lack of Home Internet a Challenge for Students*, EDUCATION WEEK, June 10, 2015, <http://www.edweek.org/ew/articles/2015/06/11/lack-of-home-internet-a-challenge-for.html?r=2083434748>, (last accessed August 19, 2015).

¹⁵ Daisy Torres, *Without a Computer, Homework Extra Tough*, NORWOOD NEWS, January 7, 2015, <http://www.norwoodnews.org/id=16623&story=without-a-computer-homework-extra-tough/> (last accessed August 19, 2015).

The same story is told in the nation’s heartland. In Wisconsin’s Green Bay Area Public School District, more classes are becoming paperless and access to the school library’s take-home devices are in high demand. Diane Doersch, the chief technology and information officer stated in the article, “If they don’t have access at home it makes it difficult to get their homework done.”¹⁶

When students lack home Internet access, districts, schools, principals, and teachers also face difficult decisions: refrain from assigning advanced online homework because not every child would have the means to complete the homework; or assign the required online homework and penalize the students who fail to complete the homework due to lack of access; or assign the homework and make special, and sometimes costly, accommodations for those who lack access at home. For example, all students at Park Hill High School in Kansas City, Missouri must complete an online course in order to graduate, as per a district requirement, even though many students in the district lack the at-home Internet access necessary to fulfill this mandate. To accommodate the students that do not have access, the school must go to extraordinary lengths: providing a “Virtual Learning Lab”—staffed by a teacher’s assistant rather than a certified teacher due to costs—that allows students to work on their virtual class during the school day while the rest of the students who have transportation and at-home computer access are released from school. In addition to reworking the school day for some children and not others, Park Hill was chosen last year as the only school in Missouri to pilot the AP Capstone Program, which requires intensive research and ample computer time. Part of the agreement required that every student had access to a computer and the Internet from home. In order to meet the requirement, the school provided laptop computers and Internet hotspots for those students in the program and plans to be a full 1:1 school next year. Assistant Principal Deborah Miller expressed her concerns with providing access to devices and Internet in schools while some students lack access at home by stating: “We recognize that just having a device without Internet access may actually widen the gap between our students in poverty and other students.”

In Kent, Washington, where 9%, or approximately 2,500, of its 27,000 students lack home Internet access, school officials made strenuous efforts to ensure all students, even the

¹⁶ Michelle Clemens, Green Bay Schools Give Students Internet at Home, April 24, 2015, WBAY ABC2, <http://wbay.com/2015/04/24/green-bay-schools-give-students-internet-at-home/>, (last accessed August 21, 2015).

unconnected, would benefit from the district's 1:1 laptop program. According to a 2014 article in The Hechinger Report, Kent paid for the installation of WiFi hotspots in three community centers and Internet kiosks in public housing. It also implemented WiFi in all of its schools, allowing students to park in school lots and gain Internet access. However, those efforts could not substitute for home connections. As the article related, the kiosks were not inexpensive, costing \$7,000 apiece, and sometimes they didn't work. Additionally, Kent's low-income students are not concentrated in public housing and are widely scattered across the district, meaning that connecting public housing and community centers could not reach everyone. Finally, although Kent's city center has WiFi, "the connection isn't reliable enough for students, said officials, who had once hoped the project might span the whole community."¹⁷

Other districts looking to implement digital initiatives face difficult decisions. At Manteca Unified School District in California an initiative that aimed to put technology in the hands of every student ended-up placing a significant financial burden on some low-income parents. The \$195 per-student per-year cost of the Going Digital initiative was simply too steep for the 10.9% of families in the district with less than \$11,000 in expendable income per year. As an article pointedly summarized: "If what a number of parents believe is true that their children have been told if they don't sign the contract to be able to take the device home that they will fall behind and lose possible points toward their grades, Going Digital will be creating an even greater divide when it comes to educational opportunities between the very poor and everyone else."¹⁸

III. EdLiNC Urges the Commission to Ensure that Lifeline Recipients Have Access to Adequate Bandwidth at Home

In the Notice, the Commission indicates that low-income students need "affordable, reliable, and quality broadband services in order to effectively complete their homework, and have the same opportunity as their classmates to reach their full potential and feel like they are part of the conversation."¹⁹ EdLiNC urges the Commission to embrace this statement as one of the new

¹⁷ Rachel Monahan, *Getting kids online at home is key to closing the digital divide – and harder than you might think*, The Hechinger Report, December 12, 2014, <http://hechingerreport.org/getting-kids-online-home-key-closing-digital-divide-harder-might-think/>, (last accessed August 21, 2015).

¹⁸ Dennis Wyatt, *Going Digital means poor students may get left behind*, MANTECA BULLETIN, January 20, 2015, <http://www.mantecabulletin.com/archives/119780/>, (last accessed August 21, 2015).

¹⁹ Second Further Notice of Proposed Rulemaking, Order on Reconsideration, Second Report and Order, and Memorandum Opinion and Order, FCC 15-71, (June 22, 2015) at pages 14-15.

goals of Lifeline because 21st Century digital homework requires adequate broadband and not just any level of connectivity. As the Commission adopted bandwidth goals for classrooms and libraries for the E-Rate program, we urge the Commission to do something similar for the Lifeline program: establish home broadband access goals that provide students with sufficient bandwidth to complete their digital homework assignments, engage in academic and job-related online research, and to communicate and collaborate at the same level as their peers; and that provide parents and family members with the ability to communicate with their children's teachers and access school websites and digital education content.

To help determine an adequate home broadband access standard, EdLiNC believes the Commission should consider a few indicators. First, according to a recent Gizmodo survey that mapped Internet speeds by congressional districts, the national average Internet speed is 18.2 megabits per second (mbps)²⁰. Second, a recent Netflix survey suggests that while this average is well above the recommended broadband connection speed of 1.5 mbps,²¹ it masks the existence of a digital equity gap, where those living near affluent districts had access to substantially faster speeds than those residing in lower-income, rural, and high-density areas. Third, according to the Commission's own broadband speed guides, 4 mbps are recommended to stream a high quality educational video²² and at least 6-15 mbps are recommended for a household of 3 people to run basic functions on three devices and one high-demand application.²³

IV. EdLiNC Believes that Home Broadband Access is an Important Step but More Needs to be Done to Fully Bridge the Homework Gap

Addressing home bandwidth needs is but one part of the solution to resolving the Homework Gap. Students also require computing devices with robust capabilities, excellent digital content and apps, and technology training for students and families in order to make the fullest and best use of home broadband. The Commission took note of this fact in the Notice: "We recognize that

²⁰ Rueben Fischer-Baum, *A Map of Who's Got the Best (And Worst) Internet Connections in America*, GIZMODO, September 5, 2013, <http://gizmodo.com/americas-internet-inequality-a-map-of-whos-got-the-b-1057686215>, (last accessed August 24, 2015).

²¹ Internet Connection Speed Recommendations, NETFLIX, <https://help.netflix.com/en/node/306>, (last accessed August 24, 2015).

²² Broadband Speed Guide, Federal Communications Commission, <https://www.fcc.gov/guides/broadband-speed-guide> (last accessed August 24, 2015).

²³ Household Broadband Guide, Federal Communications Commission, October 13, 2014, <https://www.fcc.gov/guides/household-broadband-guide> (last accessed August 24, 2015).

no one program or entity can solve this problem on its own and what is needed is many different organizations, vendors and communities working together to address this problem.”²⁴

Therefore, EdLiNC calls upon Congress and the Administration to work to ensure that the other pieces to the homework gap puzzle – the devices, the content and the training – are made available to those students and families residing on the wrong side of the Homework Gap. Legislation proposed by Senators King and Capito, which would measure the extent of the Homework Gap and provide support for districts to provide broadband-poor students with creative solutions to gain access to broadband at home, represent the kind of fresh thinking that is needed to thoroughly address the spectrum of issues that comprise the Homework Gap. Serious efforts like the King-Capito bill, coupled with Lifeline reforms targeted at connecting low-income students in their homes, will go a long way towards closing this troublesome gap.

V. Conclusion

EdLiNC believes that providing broadband access to low-income families is a major step in the right direction to help close the educational equity gap that exists for students who lack access to Internet at home. Without broadband access at home, too many students lack the ability to complete digital homework assignments, perform academic or employment research, apply to college or for summer jobs, and gain access to basic government services. Without broadband access at home, parents may find it difficult to send and receive electronic communications with their children’s teachers or school leaders, access school websites, engage in school activities, and ensure the safety of their children online. Moreover, without broadband access at home, the tremendous work that the Commission did last year in modernizing the E-Rate program, thereby ensuring all k-12 schools and libraries enjoy robust WiFi and broadband connectivity, will be undermined.

²⁴ Ibid at page 14.

Appendix A

EdLiNC Member Organizations

AASA: The School Superintendents Association

American Federation of School Administrators (AFSA)

American Federation of Teachers (AFT)

American Library Association (ALA)

Association of Educational Service Agencies (AESA)

Association of School Business Officials International (ASBO)

Consortium for School Networking (CoSN)

International Society for Technology in Education (ISTE)

National Association of Elementary School Principals (NAESP)

National Association of Independent Schools (NAIS)

National Association of Secondary School Principals

National Catholic Educational Association (NCEA)

National Education Association (NEA)

National PTA

National Rural Education Association (NREA)

National Rural Education Advocacy Coalition (NREAC)

National School Boards Association (NSBA)

United States Conference of Catholic Bishops (USCCB)