Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	**)**	
	)	
Modernizing the E-Rate Program for	**)**	WC Docket No. 13-184
Schools and Libraries	**)**	
	)	

COMMENTS OF THE COUNCIL OF THE GREAT CITY SCHOOLS

The Council of the Great City Schools is pleased to submit comments in response to the Commission's Notice of Proposed Rulemaking (NPRM) published on July 17, 2019 (WC Docket No. 13-184) regarding Category 2 budgets for the E-Rate. The Council supports the continuation of Category 2 funding and the move to district-wide budgeting, and we ask the Commission to review the per-student budget levels to ensure a sufficient amount of funding is provided to reach broadband goals.

Introduction

The Council of the Great City Schools appreciates the efforts of the Commission and staff in recent years to modernize the E-Rate, prioritize broadband service for schools and libraries, and incorporate feedback from school districts and stakeholders. Since its inception, the financial support of the E-Rate has helped many urban schools be a part of the immense technological advancements our society has seen, and it has provided educators with access to modern communications that they may not have been able to obtain otherwise.

The Council of the Great City Schools includes 75 school districts, or less than one-half of one percent of the approximately 14,000 school districts in the U.S., but as the nation's largest urban school systems, our members enroll almost 8 million students, including approximately 28 percent of the nation's Hispanic students, 29 percent of the nation's African American students, and 25 percent of the nation's children living in poverty. The value of the E-Rate is apparent every day to the districts in the Council, as we serve the highest numbers and concentrations of disadvantaged children, employ the largest number of teachers, and operate in the greatest number of outdated and deteriorating buildings.

The Commission's recent efforts to strengthen the E-Rate has provided additional benefits to schools and helped them implement the kind of innovative changes urban districts want to make, like online assessments and computer adaptive testing, interactive instruction, blended learning, and 1:1 computing initiatives. Our nation has an interest in improving our schools to make sure the American workforce has the skills needed to expand opportunities, grow our economy and compete in the international marketplace. In urban school districts, this means making sure that our students and teachers learn and work in safe, secure, and modern classrooms that prepare graduates for college and careers after their K-12 experience. Continued financial support and further refinements to the E-Rate program will help deliver the benefits of next-generation broadband and high-speed wireless to more schools and students in our nation's cities.

Continuation of Category 2 Budgets

The Council of the Great City Schools supports the retention of the Category 2 budget approach proposed in this NPRM. As the Commission noted, there has been near-unanimous support for the Category 2 budgets since its implementation, and no stakeholders have supported a return to the previous two-in-five rules. While there are modifications that could be made to the Category 2 budgets that would improve the efficacy and efficiency of the program, the predictability and flexibility that resulted from the E-Rate Modernization Order must be continued to deliver the benefits of next-generation broadband and high-speed wireless to more schools in our nation's cities.

The Council also submitted comments to the Public Notice in 2017 urging the Commission to continue funding Category 2 services for internal connections and wireless deployment. As we stated at the time, the combined impact of establishing Category 2 budgets, eliminating the two-in-five rule, and raising the funding cap has been a tremendous help as urban school districts look to deploy broadband networks and implement the related instructional tools that can raise achievement. Prior to the E-Rate Modernization Order and the introduction of Category 2 budgets, both the amount of E-Rate support available and the predictability of Internal Connections funding were sorely lacking.

Until E-Rate 2.0, applicants often went through the futile exercise of submitting reimbursement requests, in some cases for dozens or hundreds of urban schools, that had little chance of being funded. Applicants did the best they could when money was available from the program, and from within their own finances, to update classrooms, school buildings, and district networks. The varied and contrasting level of broadband speeds in schools today is a direct result of the years of uneven and inadequate history of support for technology in education.

The predictability of Category 2 budget amounts is an important factor for school districts in planning for needed technology upgrades. In its February 2019 report on Category 2 budgets, the Commission itself noted that, "the category two budget approach appears to provide more flexibility to applicants to plan for the deployment and maintenance of their networks in a way that best suits their needs, particularly for school districts." The continuation of Category 2 budgets – as well as the continued eligibility of managed internal broadband services, caching, and basic maintenance of internal connections – is necessary for school districts to progress in their efforts to provide safe, secure, and modern classrooms that prepare graduates for college and careers after the K-12 experience.

Moving to District-wide Category 2 Budgets

The Council appreciates and fully supports the proposal to calculate Category 2 budgets on a district-wide basis. As we have stated in numerous proceedings since the E-Rate Modernization Order, including in our comments last month to the Universal Service Funding NPRM (WC Docket No. 06-122), many school districts cannot take full advantage of available Category 2 funding due to the current site-based student allocation model. As the Commission noted, there has been a consistent call from stakeholders to allow the use of Category 2 budgets district-wide, rather than limiting them to the school level. The uniform calculation that currently exists does not reflect the varied costs of deploying and maintaining Wi-Fi at school sites. High student mobility in urban areas also means that students often attend multiple schools in the district, and it underscores the need to implement a standard wireless infrastructure throughout the school system. This is not always possible currently since individual school budgets for Category 2 can vary considerably, and each school has differing needs for network equipment.

There are a number of reasons why individual schools have different per-pupil funding needs for wireless deployment, such as enrollment size, facility age, varying student needs, and specific technology needs. In small schools, the existing Category 2 budgets are often not high enough to cover basic wireless needs. The age and location of buildings, the existing infrastructure and refresh cycle, and the size and scope of wireless deployments can also play an important role in selecting the proper solution for a school campus. For example, some school buildings are over 100 years old and their cabling projects are more labor-intensive than newer sites. In other schools, deciding between cloud or campus-based Wi-Fi solutions is dependent on the difference in function and features needed for that specific site.

In addition to maximizing available funds, applicants have also commented on the administrative advantages of a district-wide budget, and the Commission itself outlined these best in paragraph 23 in the Notice. "There are several potential benefits to this approach. First, as commenters contended in response to the 2017 Public Notice, moving to a district-wide calculation would streamline the application process for category two services from start to finish, simplifying the budget calculations, the FCC Form 471 application, the PIA reviews of those applications, and the FCC Form 500 cancellation process… Moreover, a district-wide calculation should simplify the review of applications where there are shared services by E-Rate eligible entities." The combination of widespread support, more efficient spending, and easing applicant and the Administrator's burden make the move to a district-wide calculation a logical decision.

In response to the inquiry about serving charter schools with a district-wide budget, we would emphasize another point in that same paragraph 23, where the Commission stated that, "calculating budgets on a district-wide basis would afford local entities that are familiar with the needs of their schools the opportunity to leverage that knowledge in making determinations about the efficient and effective allocation of E-Rate funds in fulfillment of the program's objectives and goals." Some districts operate charter schools as part of their own school systems, as the Commission noted, just as they may also operate magnet, independent study, and alternative schools, or other options as part of their choice portfolio. School districts have a distinct desire to ensure that each school in its system performs well, and that enrolled students have access to the tools and instructional content they need to achieve, regardless of the setting. There is not a need for the Commission to require school districts to direct a portion of their E-Rate budget to any specific school, particularly if the goal is providing applicants that have local knowledge with the flexibility to determine where funding is needed throughout their school system.

Finally, the ability of applicants to access additional funding if school enrollment increases must remain as part of the Category 2 budget process. For example, urban school districts often see large increases in student population in a particular year or over a multi-year span if they are located in an immigration settlement zone or there are changes in local housing patterns. We appreciate the Commission's continued aim to improve the ease of applications, but having the resources to serve the students enrolled in our schools remains a priority and should not be delayed by multiple years due to fear of administrative burden.

Need for Additional Review of Cost Multipliers

We appreciate the Commission's question in the Notice about Category 2 budget levels and the awareness it displays an applicant's ability to make the goals of the program's Modernization Order an on-the-ground reality. Based on the experiences of urban schools since E-Rate 2.0 was enacted, we ask the Commission to continue to review whether the $150 per-student multiplier is sufficient to meet wireless and broadband goals.

In 2017, the Council surveyed urban school districts regarding the sufficiency of Category 2 funding in response to the Commission's Public Notice (WC Docket No. 13-184) and found that the estimated operational cost for Wi-Fi networks varied greatly in school districts and the majority of districts felt that a higher per-pupil amount was needed. As noted earlier in our comments, costs per building differ based on school size, as smaller schools with lower enrollments generate a more modest Category 2 budget under the E-Rate funding mechanism and may require a higher per-pupil amount. While urban districts do operate many large schools, our school systems have buildings of all sizes, including approximately 2,000 schools that enroll less than 200 students, and some 4,500 schools with less than 400 students.

The additional funds needed for Wi-Fi also varied on the types of service needed. Districts recommending an additional $50-100 per student in the budget tended to have existing wireless infrastructure but need some additional funds to ensure maintenance and upgrade schedules are performed and adhered to. Districts responding that doubling or tripling the per-pupil budget was necessary indicated that their existing budgets were insufficient to purchase and install items such as network switches, wireless controllers and wireless access points, as well as other eligible services needed to deploy wireless networks, such as caching and firewalls. One district indicated that the level of funding in the current school budgets meant they were unable to complete full school network upgrades and instead must rely on a more reactive, piecemeal approach based on equipment failure.

One common theme in the request for a larger Category 2 per-student budget was the need to upgrade the cabling that served the schools. One district with 100,000 students in explaining the need for a larger Category 2 budget said, "We have been unable to replace our OM-1 fiber, which was industry-standard when we first wired our schools but cannot meet the Gbps speeds needed for our classrooms today. We are attempting to use conditioning patch cables to increase the Gbps backbone in the schools to help meet demand."

An even larger urban school district explained their similar cabling issues in greater detail. "Networks include both wired and wireless equipment. This means schools need a router, core switch, switches, wireless controller, and access points. The wireless equipment needs cabling, and the cabling for most of our schools are 20 years old or older. This has created challenges since fiber life is typically 15 to 20 years depending on site conditions. Most of our schools' backbone cabling can handle speeds up to 1 Gbps, but with the increased demands these need to be replaced with cabling and equipment that can accommodate up to 10 Gbps." This district indicated that the existing Category 2 budgets covered labor for break/fix services, basic care or bug fix and firmware type support, eligible equipment during repairs, and the replacement of wired equipment and some controllers at selected schools.

As the Council has also outlined in previous proceedings, another common theme in responses to the question of Category 2 budget sufficiency was the impact that reduced funding for Voice Services had on districts' ability to pay for technology services beyond the reach of Category 2 budgets. One urban district indicated that, "Funding reimbursements, previously received from category one voice services, are no longer available to bridge these gaps. In addition, the need to budget and pay in full for all voice services has diverted funding for these, otherwise eligible, category two services." Several districts referenced the loss of reimbursements they received before the Modernization Order as a factor in their inability to fund wireless costs on their own.

The Council also provided examples of the need for funding above the $150 level in our 2014 comments on the Further Notice of Proposed Rulemaking (WC Docket No. 13-184, CC Docket No. 02-6), and we have included an excerpt from those comments in Appendix A.

Conclusion

As one of the E-Rate program's most dedicated stakeholders and supporters, urban public schools appreciate the Commission's proposal to continue the Category 2 budgets and the consideration of additional flexibility through district-wide budgets. The E-Rate allows urban school districts to access the benefits of digital learning, and the program has helped many students and schools – regardless of income or location – to integrate technology, media, and information-rich instructional content that is a necessary part of contemporary education. We join the Commission in supporting the evolution of this important program to ensure all students can benefit from modern instruction and learn in classrooms that mirror the technology-prevalent world beyond the school walls.

Respectfully Submitted,

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Member districts: Albuquerque, Anchorage, Arlington (Texas), Atlanta, Aurora (Colorado), Austin, Baltimore, Birmingham, Boston, Bridgeport, Broward County (Ft. Lauderdale), Buffalo, Charleston, Charlotte-Mecklenburg, Chicago, Cincinnati, Clark County (Las Vegas), Cleveland, Columbus, Dallas, Dayton, Denver, Des Moines, Detroit, Duval County (Jacksonville), El Paso, Fort Worth, Fresno, Guilford County (Greensboro, N.C.), Hawaii, Hillsborough County (Tampa), Houston, Indianapolis, Jackson, Jefferson County (Louisville), Kansas City, Long Beach, Los Angeles, Manchester (New Hampshire), Miami-Dade County, Milwaukee, Minneapolis, Nashville, New Orleans, New York City, Newark, Norfolk, Oakland, Oklahoma City, Omaha, Orange County (Orlando), Palm Beach County, Philadelphia, Pinellas County, Pittsburgh, Portland, Providence, Puerto Rico, Richmond, Rochester, Sacramento, San Antonio, San Diego, San Francisco, Santa Ana, Seattle, Shelby County (Memphis), St. Louis, St. Paul, Stockton, Toledo, Toronto, Tulsa, Washington, D.C., Washoe County (Reno), and Wichita.

Category 2 and WI-FI

The Council appreciates the opportunity provided in the FNPRM to offer input on the $150 per-pupil amount adopted for internal connections in the Report and Order. As the Order itself stated, costs for wi-fi deployment can be significantly higher in urban schools, yet for many of the poorest city school districts, the reimbursements available through the E-Rate have been reduced to 85%. Urban school systems that already have significant wi-fi systems in place indicated that the $150 per-pupil allocation for Category 2 might be sufficient to keep their access layer current, pay for maintenance costs, or upgrade old wireless systems. But paying for all three over the next five years, or attempting to deploy wireless throughout dozens or hundreds of the nation's oldest school buildings typically exceeds the amount approved by the Commission.

Overcrowded classrooms are common in urban schools, with up to or more than 40 students, and sometimes two access points must be installed to ensure stability. In many urban schools, the condition of facilities and the construction materials used in the nation's oldest sites also has an impact on density needs. The cost of routers can also be higher in urban areas since schools with thousands of users need enterprise-class routers to ensure stable and secure access to the network. In some parts of the country, a school's outside and assembly areas are used for instructional time and need to be covered, also increasing the per-student amount.

There are additional factors in urban schools that can drive up the costs beyond the $150 amount. Most major cities have labor stabilization agreements, mandating the wages paid to all contractors and workers, as well as the terms, conditions and costs on public projects. Due to the age of urban schools, installation projects have routinely higher costs because workers must be certified and insured to work in buildings with lead and asbestos. Despite the popular notion that cities have an abundance of service providers, many urban schools also see prices go up on major projects due to a limited pool of bidders. Finally, some cities and school districts have approved tougher radio frequency exposure standards, which also results in higher costs.

The result of these factors leads to an increase in costs for internal connections in urban areas, as the Commission found itself. One Council district with 50,000 students enrolled in 100 school sites received bids in 2013 for a subset of schools, and was able to project a district-wide cost of about $30 million to install wireless service. This equals about $600 per-student (pre-discount).

Another district estimated a similar cost of approximately $700 per-pupil, based on a 30 students-per-classroom assumption. One district stated that the $150 amount was sufficient for two years, but that the five-year estimate for deploying, maintaining, and upgrading wireless networks to cover their entire school system was closer to $400 per student. A number of urban districts had estimates in this $300-400 range, including one that recently completed their district-wide wi-fi installation for approximately $325 per-student.