KELLOGG & SOVEREIGN CONSULTING, LLC
1101 Stadium Drive, Ada, OK 74820 – (580)332-1444

November 20, 2009

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: COMMENTS ON BROADBAND NEEDS IN EDUCATION INCLUDING CHANGES TO E-RATE PROGRAM TO IMPROVE BROADBAND DEPLOYMENT NPB PUBLIC NOTICE # 15 (E-Rate Public Notice DA 09-2376)
GN Docket Nos. 09-47, 09-51, 09-137
CC Docket No. 02-6
WC Docket No. 05-195

Kellogg & Sovereign® Consulting, LLC ("KSLLC") has been assisting schools and libraries with the universal service discount mechanism for schools and libraries ("E-Rate") since the program's inception in 1998. Our clients range from districts servicing 17 students to districts serving 45,000 students. For the 2009-2010 filing window, our firm filed over 350 Form 471 applications representing over 220 school districts and library systems in eight states. For the 2010-2011 filing, at this point we have submitted 370 Form 470's for our client schools and libraries.

The following acronyms are used in our comments:

- USAC - Universal Service Administrative Company (USAC)
- E-Rate-Education Rate. Universal Service Discount Mechanism for Schools and Libraries.

BROADBAND DEPLOYMENT DATA

1. We seek information on the current state of broadband connectivity, device availability, and adoption in U.S. schools and classrooms.

c. What are the specific barriers to increased broadband deployment and usage for schools and libraries? Is lack of physical facilities, including, e.g., complete wireless coverage for a school district, a problem for some schools and libraries? Is cost of the monthly service or installation too expensive, even with the E-rate discounts? Is funding for services and equipment not supported by E-rate, such as computers or teacher and staff training, too expensive for schools and libraries to purchase additional bandwidth? Are internal networks insufficient to handle increased usage?

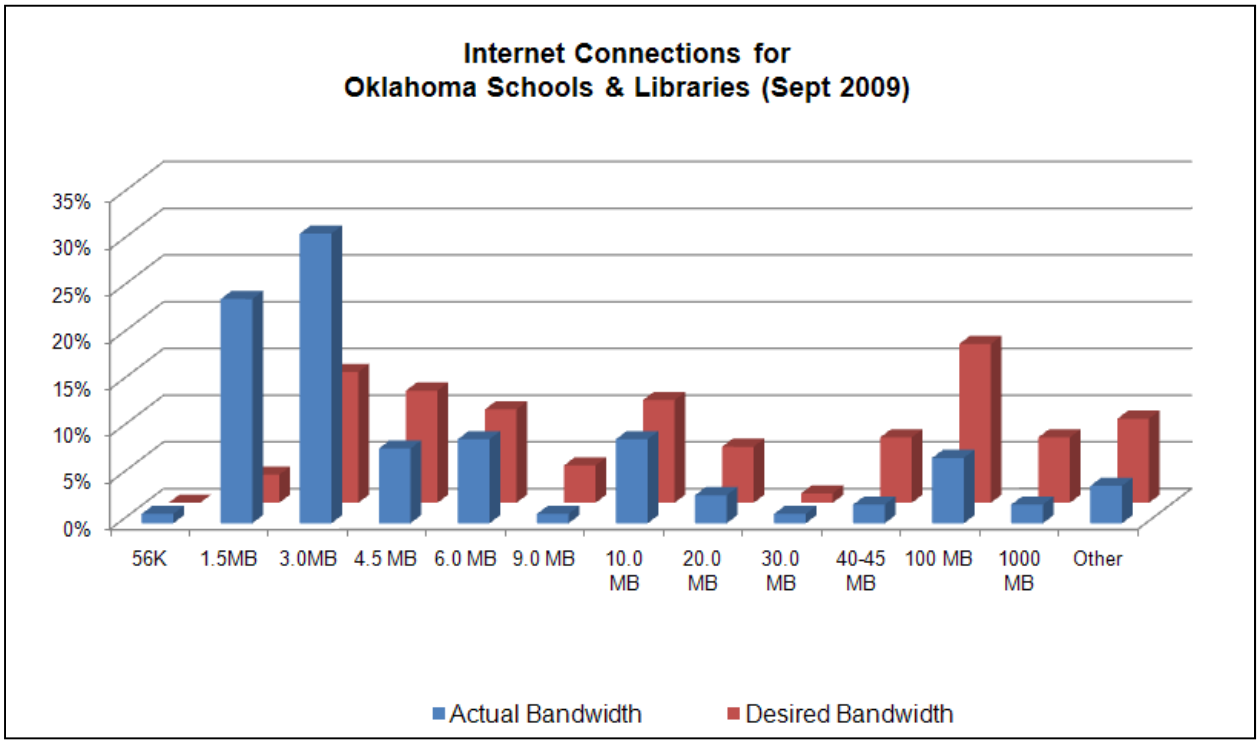
> In September, 2009, Kellogg & Sovereign Consulting, LLC conducted a survey of the problems our client schools and libraries were encountering with Broadband deployment. We received 116 responses out of a total base of 220. Of the respondents, 44% were Superintendents, 26% were Technology Directors, 26% were Technology coordinators, 2% were Library Media Specialists, 3% were teachers, and 2% were Principals.

Major issues cited by the respondents in their own words are listed below:

- With all the content that is online these days, our bandwidth needs have skyrocketed. A lot of curriculum is hosted off-site by the providers, and that is using bandwidth to access, using streaming video is very intensive, especially when you have more than 1-2 classrooms doing it simultaneously. Add in email hosting, web hosting, and other web-based functions we use to keep our parents and students informed, and our bandwidth usage and requirements seem to grow faster than we have the ability to expand.
- Most of our programs are online now. Online Testing, online student information system, gradebook, lesson plans, attendance, etc, school website access, online textbooks, the list goes on and on and when most of your users spend their day online, it can cause major network clog-up. We NEED THE HIGHEST SPEED POSSIBLE FOR ONLINE ACCESS!!!!!!!!!! 1000 MB would be AWESOME!!!!
- There are times that the network runs slow. Even though we are a small district with 150 computers, streaming video, etc. we could use more bandwidth.
- Our older infrastructure can cause intermittent problems. Some of our switches need to be replaced.
- Even with a 10mb connection we are still limited to the amount of online video/audio that we can use in the classroom. And we are beginning to see a limit to the amount of online software applications that we can use.
- Our limits and barriers tend to lean toward the lack of desire for companies to build larger lines within the infrastructure of the communications network. I understand that as a company they must be cost effective.
- We need more bandwidth especially during state testing.
- Inadequate Internet bandwidth causes frequent slow response times. We have heavy use by our public accessing information on our website and we need to at least double the bandwidth of our Internet connection, and quadruple would come much closer to really meeting our needs.
- Very slow.....cabling between buildings is getting old...We need fiber connections, but do not have the money to upgrade since E-rate doesn't' have enough funds to fund 80% schools.
- More and more content is web-based. Having just upgraded our bandwidth this year, we are already in need of more. We are taking steps to bring some web-based updates in house, but it isn't the most effective way to work for us.
- Outdated equipment, technology has outpaced funding for equipment; students carry cell phones have more technology than we have funds to purchase.
- Revenue issues in keeping the system/servers/connections up and running and costs of upgrades and security issues.

Current Broadband Deployment as Compared to Desired Broadband:

The chart shown below shows what the respondents of the survey described above stated they currently have regarding actual bandwidth and what they need to meet the educational technology demands of today. The majority have either T-1 (1.54 Mbps) or 3 Mbps circuits when the majority know that they need at a minimum 100 or 1000 Mbps circuits to accommodate the rapid movement toward curriculum that is online and hosted by curriculum experts.



BROADBAND IMPLEMENTATION

2. We seek comment on school and school system broadband initiatives including infrastructure and large-scale application deployment.

b. What have been the barriers to entry and barriers to adoption?

The biggest barriers to adoption have been lack of funding and lack of available high bandwidth options in the service area of the school and/or libraries.

The issue of lack of funds available is one we saw repeated multiple times in response to different questions asked in our September 2009 survey. The lack of funds is tied to the fact that implementing a high bandwidth circuit brings with it the necessity to upgrade Internal Connections equipment to handle the higher bandwidth distribution. With a large percentage of our client schools and libraries falling into the 80% or below E-Rate discount level, many have budget constraints that will not permit them to implement as they either never or rarely receive funding through E-rate for internal connections.

c. What are the most common needs heard from classrooms and instructional leaders with regard to using broadband for instructional or other purposes?

1. Lack of access to high bandwidth circuits in rural areas. In many cases telecommunications carriers have not found it profitable to install in remote areas which in effect caps the bandwidth available to school districts and libraries. While a few are willing to work within the constraints of the cap of $500,000 available through E-rate funding for network build-out many cannot due to the high cost of crossing mountainous terrain or long distances to run from the nearest central office. Oklahoma is a good example of the rural issues since the state consists of 68,000 miles of geography and the barrier related to the distance issue is very real.

2. For Oklahoma, the lack of access to broadband in student's homes is a big constraint in all areas of the state. Only those students whose family has the discretionary income to afford cable or one of the satellite options available have access to high speed Internet access at home.

   A secondary issue in this case is that students who are given a laptop computer for special projects are restricted from accessing the Internet from their homes due to a concern that the district will be in violation of the CIPA regulations since students would be accessing the Internet using public access.

d. What creates demand for using broadband in education?

1. The implementation in many districts and libraries of Voice Over IP hardware is shifting what would have been going over the regular telephone circuits to Internet and Broadband circuits when schools are able to receive Internal Connections funding.

2. Many schools and libraries are requesting Interconnected VOIP this year as the technology has stabilized and is now a viable solution. This will further drive the need for additional bandwidth in the future.

3. The ever increasing movement to the use of curriculum resources hosted outside the district or library system and the new implementation of reliance on online standardized testing for measuring student achievement are two of the changes that require very high bandwidth circuits.

   This past spring, during state testing, school districts across the state of Oklahoma experienced significant problems with adequate bandwidth which resulted in entire school networks crashing and requiring that the network be restarted more than once in any given day. The requirement that all students at one grade level in multiple schools across the state take the tests at exactly the same time flooded the network with more data than could be handled by the present T-1 circuits.

   One student described the problem like this, "We would just get started and have answered 20 or 30 questions when the network would crash and lose all the data. We had to take a break while the network was restarted then, when we went back in, we had to start all over again – it lost all of our answers."

According to State Superintendent of Instruction, Sandy Garrett, "Oklahoma's online testing program has achieved an all-time high of administering 214,000 Achieving Classroom Excellence Act (ACE) state high school exams so far this school year. On May 6, 2009 the total number of online ACE exams taken this school year by Oklahoma middle and high school students among the seven, ACE End-of-Instruction (EOI) exams topped an unprecedented 200,000, reaching 214,000. The ACE exams are: Algebra I, Algebra II, Geometry, U.S. History, Biology, English II and English.

Online testing has required more planning and coordination on the part of local school districts and is costly because of hardware system requirements. However, students and parents seem to prefer online testing because it provides preliminary results immediately and is a medium with which young people are very comfortable."

BROADBAND AND DIGITAL CONTENT

3. We seek comment on schools' and school systems' online and digital content needs and uses, including content for student instruction (e.g., whole or partial textbooks or supplemental resources) as well as professional development content for educators.

a. What sets of instructional and operational problems are schools and school systems attempting to solve with online content solutions?

Schools want to provide their students with currently available information but teaching American History from a textbook that is 10 years old without having supplementary information available from the Internet results in students unprepared to pass the referenced state mandated tests.

Also, new textbooks are accompanied by CD's and a wealth of links to online supplementary information that can only be obtained by accessing the Internet.

b. Of the typical set of online content tools (e.g,: content creation, content publishing, content indexing, content management, content search) what have schools and school districts experienced when making purchasing decisions about the quality and availability of tools that meet their needs? Are there areas where needs are consistently unmet or under-served?

The problem isn't the availability of excellent information and resources, but rather that the bandwidth to access the Internet to reach the content is missing. Additionally, viruses and spam can bring an otherwise efficiently operating network "to its knees". Therefore, system administrators must install expensive virus and Internet filtering software and devices which closely monitor Internet traffic and, as an unfortunate by product, slow or block access to information available on the Internet.

Since there are currently other resources for curriculum, and E-Rate funds are limited, we do not believe there is any reason to for E-Rate funds to be spent on curriculum development but rather, that efforts be directed at assisting districts and libraries have greater access to high bandwidth circuits. Additionally, funds for virus protection and Internet filtering would make a significant difference in the schools' ability to safely access on-line content.

c. How is digital content being integrated with traditional textbooks and other materials? Are there issues preventing this integration?

When bandwidth is not a constraint and internal infrastructure and computers are upgraded to access streaming and online resources, schools do not find problems supplementing information provided in traditional textbooks and other materials.

The main barrier we see, by far, is the broadband limitations and security requirements that prevent schools from having access to the wealth of content currently available, especially in the area of video educational content. Additionally, lack of funds to upgrade the infrastructure or purchase new technologies prevents schools from being able to access content at the classroom level.

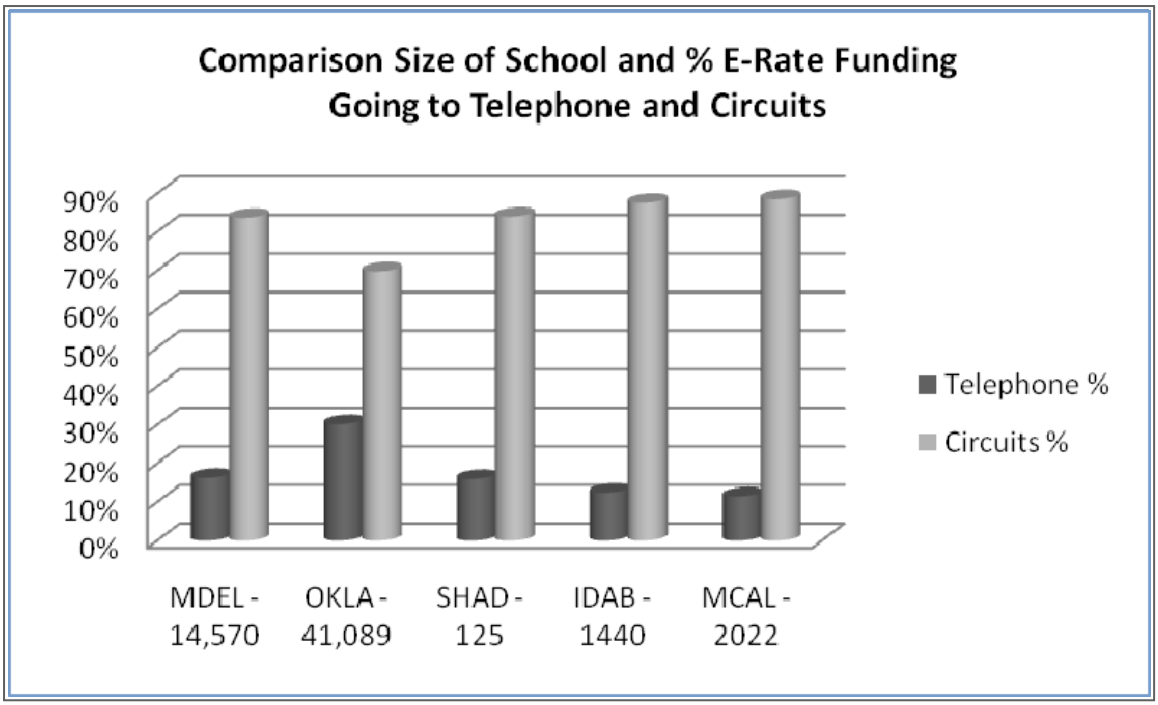
E-RATE MODIFICATIONS

11. As part of the national broadband plan, we seek comment on how the Commission can modify the E-rate program to more effectively meet the needs of applicants as well as whether the program can be a vehicle to stimulate the adoption of broadband throughout communities. For example, in Portugal researchers have found that the usage of broadband in schools creates a "spillover" effect that leads to greater broadband adoption in the community as students increase their Internet usage at home and transfer their technology skills to other family members.

a. Currently, schools and libraries may obtain discounts on various services that provide high speed access to the Internet as telecommunications and Internet access (priority 1) services. We are aware that applicants may characterize their funding requests according to terminology used on the eligible services list, such as DSL, "internet access via cable modem," ATM, frame relay, T-1, T-3, Ethernet, OC-3, OC-12, ATM, "internet access via fiber optics," etc. We seek information that would enable us to better understand at a more granular level what broadband services eligible applicants are buying today.

Overall, what percentage of priority 1 funding is subsidizing broadband services at what speed levels, and what percentage is subsidizing basic voice service (wireline or wireless)? Can we segment the applicant community that receives discounts on higher capacity broadband services based on specific characteristics (such as number of students, rural vs. urban, discount level, etc.)?

The chart below shows the % of funding going to Telephone and % of funding going to Circuits for a representative sample of our client schools. The district code and population are shown as a part of the chart.



It is easy to see that in the majority of the schools are accessing far more funding for circuits than for telephone services. In some instances as stated earlier in this document, schools are receiving funding for Voice Over IP hardware and when this occurs the district has to increase the bandwidth available to the district.

Also, many districts and libraries are requesting Interconnected VOIP this year as this technology is now stable and a viable solution. This will further drive the need for additional bandwidth in the future putting even more pressure on the total amount of funding available to fund all requests for Priority One services.

b. When applicants develop their technology plans, what factors do they consider in determining their bandwidth needs?

The day to day performance of the network observed by schools and libraries is the biggest factor in determining bandwidth needs. The present telecommunications providers make bandwidth utilization studies available to districts that show the demand put on the network during any particular period of time.

While the online testing was occurring in Oklahoma, many Oklahoma school districts worked with their providers to determine how much bandwidth they really needed to prevent the problems experienced this year occurring again in 2010-2011.

They also work with the various groups supporting technology directors and coordinators and seek input from other districts regarding their experiences.

c.We seek comment on program modifications to maximize the use of broadband connections that are subsidized by the E-rate program. Recognizing that the statute requires that discounts be provided on

services used for “educational purposes,” we seek information on whether, and if so, how, past interpretations of the “educational purposes” requirement have restricted demand aggregation at the community level to support higher capacity broadband.

For example, the program could be modified to allow for use of broadband facilities at schools by the general community, rather than just by school faculty and students.

We seek specific examples of whether and if so, how, expanding the permissible use of E-rate supported services could confer benefits to a larger community or encourage partnerships with private or public organizations to pool resources to maximize broadband utilization. What practical or operational impact would such a change have?

> Expanding access to the general community would make a significant impact on the community as a whole. A large percentage of our client base of schools and libraries are located in small communities without any affordable broadband available.
>
> More and more we see a digital divide separating those who have broadband access and those that don’t. A recent development is the demise of the traditional newspaper as newspapers move toward online delivery of information instead of the print format.
>
> ***In fact, in a large portion of Southeastern Oklahoma you can no longer get a daily paper from any news source. The only paper delivered to the area is the Sunday paper.***
>
> The major newspapers have trimmed the size of the paper to the point that they now only contain the highlights of an article then point people toward a URL to read the rest of the article. What happens if I’m a low income household? What happens is that they go without access to the most basic printed news?
>
> By opening the school doors after hours to the community it would enable, what is basically a disenfranchised population, to have a place where they can go and participate in a large number of activities accessible online.
>
> These activities could range from reading the newspaper, getting a GED, participating in online learning opportunities to take courses leading to a degree or certification that will enable them to improve their employability or advance in their current position, access resources to help them either start or upgrade a business, file for business licenses, take self-improvement courses and research the solution to problems.

d. We seek comment on any legislative changes that would expand the classes of eligible users. For example, the statute currently limits E-rate support to elementary schools and secondary schools, which are defined by each individual state. What would the impact be of modifying the statute to permit colleges, community colleges, pre-kindergarten, Headstart, or other entities to participate in the E-rate program?

> We do not recommend expanding the program to colleges and community colleges until significant additional funds are added to the program.

However, we are a strong proponent of opening up funding for headstarts and pre-kindergarten students. Access to educational resources for these two populations and the educators working in these programs should be implemented immediately.

In 2008 we began working with a Headstart program in Texas. Historically, the State of Texas recognized only those headstart programs that were located within school buildings. One Headstart agency is Texas Migrant Council. This agency has a contract with the Texas State Department of Education to train teachers who will teach in the approved Pre-kindergarten programs in the public schools. However, these Headstart locations are not within school buildings but rather are stand alone programs.

Since the Texas Migrant Council performs essential services to the State of Texas by training state teachers on how to teach to this population while also providing a laboratory setting – real classrooms with real teachers – the program is not only making a difference for the students they impact directly, but also those that are taught in the public school classrooms.

E-Rate applications were filed with USAC in 2008 and 2009. During the review process in 2008, USAC stated that these sites were not eligible for E-Rate funding because the sites were not located in schools as the Texas law designated as a requirement to receive funding. Texas Migrant Council then enlisted the assistance of the Texas State Department of Education and the Texas Legislature to broaden the recognition as a school to include the Headstart programs regardless of where they are housed. Legislation was introduced and approved by an overwhelming majority both in the Texas House and the Senate and was signed by the governor this fall. However, USAC's attorneys deemed the law is invalid and in violation of the rules that established the E-Rate program.

This program is still without critical funding as the 2008 and the 2009 applications have been denied. Appeals are in process.

For Pre-Kindergarten programs, many states already recognize these programs and in fact, in Oklahoma all public schools are required to have Pre-Kindergarten programs. The success of these programs to get Pre-K students ready to learn is overwhelming evidence that these programs make a significant impact on the student's future academic performance and, regardless of income level, the 4 year olds are as prepared as the students coming from more affluent homes.

e. To what extent does the fact that the E-rate program does not currently fund computers and other end user equipment inhibit the use of broadband by schools and libraries? Likewise, to what extent does the fact that the E-rate program does not currently fund training for teachers or librarians in the use of technology inhibit the use of broadband by schools and libraries? We seek specific information regarding what types of services are not available to teachers, students and library patrons due to lack of funding for end user equipment and training. If the E-rate program were to fund computers and training, what would the projected demand be? From a policy perspective, what are the potential negative consequences if such a change were adopted?

Funding in this area would be much appreciated, but again, it would be outside the intent of the E-Rate program and there are a large number of other programs that fund desktop computers,

laptops and other technologies while the E-rate program is the only program funding discounts on advanced telecommunications and Internet Access along with the internal connections that are necessary to distribute these essential services to classrooms. When there is ample funding to meet the needs of the current E-Rate eligible products and services, then this area may be of consideration. Currently, the desperate need is for funding to reach past the 80% discount level in order for schools and libraries to have the network infrastructure necessary to allow for broadband access to educational resources.

f. Currently, WANs are not eligible for support "to the extent that states, schools, or libraries build or purchase a wide area network to provide telecommunications services." Would modifications to this rule regarding WANs, which link schools and libraries within a district or link several school districts together, result in greater broadband deployment?

Currently the program does not provide funding for internal connections when the connection will cross a public roadway. A school district with multiple buildings that are located across the street from each other, even in a small area, must then lease the connection from a telecommunications provider and continue to pay for the connection indefinitely. We would encourage further analysis of this issue as there may be cost savings in the program to allow connections between buildings, even though a public roadway is crossed, to be funded as internal connections up to a certain distance. We believe any changes in this area should be approached with caution, however, as it would not make sense to pay for multiple networks in the same area all providing service to different institutions. In other words, once the connectivity is truly within the telecommunications network, services should be provided by common carriers accordingly.

g. Are there any programmatic rules and policies that have the effect of deterring requests for broadband funding? For instance, we understand that some libraries have suggested that compliance with filtering requirements under the Children's Internet Protection Act represents a deterrent to program participation. Are there other statutory provisions or Commission rules or policies that may reduce program participation by entities that otherwise would utilize discounts on broadband services? Commenter's should be specific in identifying which current rules may create barriers to broadband deployment.

We do not see a need to changes these services. The only problems we see in this area are the growing number of vendors who claim to provide CIPA certification. The FCC needs to more closely monitor these activities and provide clarification on how CIPA Certification may or may not be issued.

h. We seek comment on these ideas and on other suggestions for changing E-rate eligibility to improve broadband deployment.

Funding for virus protection and filtering would ease the burden of CIPA compliance along with provide essential tools to provide quality and secure access. Additional recommendations to improve broadband deployment have been discussed earlier in this document.

E-RATE DISBURSEMENT

We seek comment on how changing the E-rate disbursement and discount methodology might maximize the deployment of broadband.

a. One possible modification would be to create a new priority level for schools and libraries that do not have broadband or that have extremely slow Internet speeds to permit those entities to receive funding in advance of other eligible requests, which could enable such entities to "catch up." An alternative would be to provide increased E-rate discounts for entities that wish to implement certain levels of connectivity. We seek comment on other methods by which the Commission could implement such changes, if they were proposed.

> We don't see any changes that should be implemented in this area. Additional funding would solve this issue without needing to change existing guidelines.

b. Currently, the program's funding varies for applicants based on the number of their students who qualify for free or reduced lunch and based on their geographic location. Using this measure, discounts range from 90 percent to 20 percent of the pre-discount price for eligible services, with the poorest schools receiving funding to pay for 90 percent of eligible services. Some rural schools receive additional discounts. The Commission could recalculate these Erate discount levels to factor in not just poverty and whether the school is located in a rural area, but also whether the entity lacks broadband services.

> At present, the classification of rural and urban uses the MSA for their area. Unfortunately, school districts encompassing large geographic areas are negatively impacted by these rules. Just because the county a district is in touches an MSA should not be the only factor used to determine the rural status of a school. Many of our client schools and libraries are extremely poor located many miles from an MSA but are designated inappropriately as an urban school. We support a change from using the MSA criteria to the criteria used for health care facilities.

In addition, the Commission could change its priority structure to give preference for those schools that have not received funding for internal connections in several years. We seek comment on the extent to which schools that have not received funding for internal connections (Priority 2 funding) need to improve their internal connections in order to most efficiently use their broadband connections now and in the future.

> We strongly support the change to give preference for those schools that have not received funding for internal connections in several years. While the 2-in-5 rule did make some difference in the numbers seeking Priority 2 funding every year, there are still a large percentage of our client district and libraries who have not received internal connections funding since the second or third year of the program.

c. To what extent have current rules inhibited the development of or expansion of existing state, regional or local broadband networks? Are there changes to the Commission's rules that would facilitate these types of networks?

We agree with the following comments by E-Rate Central as we also have experienced these problems with Consortia filings:

a. Consortia are a cost-effective way to procure, fund, and use broadband services. Unfortunately, current E-rate procedures effectively penalize consortium applications by: (i) imposing additional requirements such as LOAs, Form 479s, and member tech plan tracking; (ii) delaying annual awards into later funding waves, often deferring action pending reviews of individual member applications; and (iii) subjecting higher-dollar applications to greater risks of extensive audits.

b. Broadband and other funding is languishing for an increasing number of large applicants, or groups of applicants, unfortunate enough to have legitimately selected certain vendors. Applicants caught in these "black-hole" situations may have funding delayed for years with no "due process" options.

In our direct experience, we worked with a consortium who had to completely dissolve due to the additional requirements on the consortia filing. We also work with a consortium whose funding is still being held since 2005-06 due to one member of the consortium who was under USAC review.

d. If the Commission established a national broadband goal for schools or libraries, what effect would that have on demand for E-rate funding?

e. We seek comment on these issues as well as other ideas to modify E-rate disbursements and discounts to maximize the deployment of broadband.

Adopting any of the proposed changes will, of necessity, mean that a significant infusion of additional funding would be required. While the nation's demands related to technology have increased exponentially, the E-rate program is still capped at the original amount of $2.25 billion it started with thirteen years ago.

Meanwhile, throughout the nation there has been an exponential growth in the adoption of new technologies and dependence on the Internet for day to day activities. It is critical that additional funding come into the program.

As one of the original consulting firms managing E-rate applications on behalf of school districts and libraries, we have seen quantum changes occurring in schools and libraries as a result of the E-rate program. Our client districts and libraries have moved from dial-up telephone lines to state of the art networks that surpass most of the businesses in any small community.

The E-rate program works because it is based on a measurable criteria and a fair and open competitive bidding process. It truly is the most fairly administered government program we have encountered in the 30 years we've worked with in obtaining funding for school districts and libraries.

E-RATE FUNDING

13. We seek comment on the implications of modifying E-rate funding to support additional broadband deployment and how changes to the E-rate program would improve the ability of the program to meet applicant needs for broadband.

a. To what extent does the annual E-rate funding cap of $2.25 billion limit the extent of broadband deployment by eligible schools and libraries? What are the financial or programmatic implications of increasing the cap to fund additional services not currently covered by E-rate? What are the implications of indexing the cap to inflation? Would there be specific implementation issues that would arise related to such changes?

> With the focus more and more on resources that demand broadband access and the large expenses involved each year by this demand, the funds available for Internal Connections has dwindled significantly.
>
> What a lot of people miss is that to bring in high bandwidth broadband resources requires retrofitting or replacing internal connections equipment. Many schools have not seen any Priority Two funding since the second year of the program. Consequently, they have to secure funds from other sources.
>
> Right now a school district we are working with is shopping for refurbished equipment so they can implement a badly need broadband circuit. With a severely limited budget, and faced with a reduction in the teaching staff, they have no other option.
>
> Since technology is growing at an exponential rate, the demands for access to the latest technology by schools and libraries across the nation not only is growing much faster than funding levels, it is growing at an exponential level that must be anticipated if we are to continue to mitigate the digital divide.

b. To the extent the Commission modifies its E-rate rules to encourage additional requests for funding for broadband services under priority 1, how would that change likely impact the availability of funding for priority 2 services?

> Without question, funding must increase if the program is to expand in any way. We've made many comments throughout this document that the demand is growing exponentially and many schools are frustrated at getting behind providing even the most basic access and linkages to state networks.

c. To the extent that commenter's believe that providing additional funding above the current cap would advance broadband deployment, we seek comment on what additional amounts would be needed to achieve specific levels of broadband connectivity. Commenter's should identify all assumptions regarding their dollar estimates.

At present, the program needs a minimum of $10 billion to come close to meeting the demands of the program.

Based on $200,000 for a full network upgrade with 40,000 applicants, the cost to just upgrade their networks alone would be $8 billion. Currently the program is using close to $2 billion for priority one services which does not take into account the exponential growth in demand for broadband.

d. The Commission could decrease the discount levels for basic telecommunications, or otherwise modify the existing discount levels, to increase the amount of E-rate funds available for broadband deployment. What would be the effect of such a change?

We do not support a significant reduction in discount levels. We do support a possible reduction of the highest discount level from 90% to 80%. When the applicant share is 20% instead of 10% they are more judicious in their spending and less inclined to request something that they really don't need, just want. The applicant is also more likely to control the total cost of the project when they have more of their own funds invested.

e. Would eliminating some of the services currently eligible and expanding eligibility to other services result in greater levels of broadband connectivity? Commenter's should specifically articulate how proposed changes in the eligible services list would enable greater broadband deployment.

There is no option for eliminating any of the services currently eligible for funding as there isn't any service that is not fully utilized by the school districts and libraries. Eliminating any of the present services would make it that much more difficult for school district and libraries to implement the necessary bandwidth.

The program does not need reductions – it needs increases in funding.

f. What other costs not currently covered under the E-rate program would be incurred if schools and libraries could purchase additional broadband capacity? Would schools and libraries have to upgrade personal computer equipment, internal wiring, servers, and other hardware?

As stated earlier, *Without question, funding must increase if the program is to expand in any way. We've made many comments throughout this document that the demand is growing and many schools are frustrated at getting behind providing even basic access and linkages to state networks.*

g. Additionally, we seek comment on suggestions for coordinating with federal or state agencies on grant programs that could supplement the Commission's E-rate program. For example, the United States Department of Education's Enhancing Education Through Technology State Program (Ed Tech) provides grants to state educational agencies to improve student achievement through the use of technology in elementary and secondary schools. Money from grants such as this, in combination with E-rate funds, could greatly increase a school's broadband connectivity.

Due to the need for a wide range of funding sources, schools and libraries already work closely with all sources of funding available. We do not believe additional rules need to be added in this area.

h. Alternatively, E-rate funds could be used in conjunction with funds from other entities to support broadband projects. For example, upon a state's recommendation, a particular project might be funded by having the state pay for the computers and training, and providing E-rate discounts for the broadband connection. Are there other specific ways the Commission could better leverage the benefits of E-rate funding through coordination with other federal, state, local or non-profit programs that seek to advance broadband deployment?

i. We seek comment on these suggestions and other ideas to increase the amount of E-rate funds available for broadband technologies, or to more effectively use E-rate funding to improve broadband deployment.

Any initiative that takes funding away from the E-rate program would have a negative impact on the program. Cooperative projects with states could have positive results depending on the source of funding.

Easing the burden on consortium filings would be a positive step in this direction. Otherwise the existing rules provide coordination with state and local funding sources.

Respectfully Submitted,

KELLOGG & SOVEREIGN CONSULTING, LLC

Jane Kellogg, President

Deborah J. Sovereign, Vice President