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Hearing: Connecting America: Broadband Solutions to Pandemic Problem

Hearing Submitted to: Subcommittee on Communications and Technology of the Committee on Energy and Commerce

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Thank you for the opportunity to address the importance of the funding for E-rate support for emergency connections and devices for schools, libraries and Native American communities. My name is Dr. Tiffany Anderson, and I am the Superintendent of Topeka Public Schools in Topeka, Kansas.

In order to understand the challenge that many Americans are facing with digital equity, we have to understand how far we have come as a nation in the past two decades. When E-rate was established in 1996, the FCC reported only 14% of the nation's K-12 classrooms had access to the internet. The Educational Testing Service reported an average ratio of 24 students per computer in 1997. Now, twenty years later, roughly 99% of schools report internet-connected classrooms with speeds in excess of 100kpbs. Additionally, half of the nation's teachers surveyed in 2019 reported a 1:1 ratio of students to computers. As a nation, we have come a long way, and the E-rate program has been a driving force for this change. As an educator, who has served as a superintendent for most of my 27 years in education, I believe the challenges have never been greater. Today, I will share what the opportunities and challenges look like from the school district level, and I am urging you to support continued improvements through increased funding to meet these challenges that directly impact economic prosperity for all.

Device Needs and Challenges

While many schools have devices, many homes still do not have devices or access to services. The challenges of the global pandemic have helped expose the basic digital inequities across our nation. In Topeka, we serve over 13,000 scholars. We have a diverse population, which also serves many historically marginalized populations that includes African American, Hispanic, and Native American students. Many of our students of color are represented in the 73% of our free/reduced

lunch recipients and the 400 homeless students. Many of our teachers live in rural areas in Kansas and were unable to teach without adequate or reliable broadband services from home. The needs of the underserved grew exponentially during the pandemic when access to devices and remote services that relied on adequate Wi-Fi was crucial. Those living in shelters needed hot spots, which we provided. Students with some limited cable internet services at homes didn't have the speed from Broadband services to access the virtual platforms with high speed requirements to remain fully engaged in learning. Therefore, students became disengaged as consistent connectivity from home became a barrier. English Language Learners (ELL) with limited English proficiency needed translation services, but often had limited, or no, Wi-Fi services, and many relied on hot spots. Our Native American students did not have infrastructure and services where they lived, so we have continued to try to provide hot spots and services. The demand far outweighs the resources we have available. Topeka Public schools tried to serve more needs in the community by:

- providing hot spots on busses and parking them in locations for students to walk to and use their device. This worked for secondary students, but many families with primary children were not independent enough to walk to such hot spot locations and broadband needs were even more evident,
- distributing maps of the community shops that highlighted who had Wi-Fi for families (rural and high poverty areas had fewer locations to access, and this was not a long-term solution) and
- collaborating with the library for digital books and the local library, which gave the community access to the use of Wi-Fi, however eventually the library had to limit patron access and eventually close to the public due to the spread of the virus.

The challenges with the lack of connectivity has created challenges for academic and economic progress for us all. Our story is not unique to Kansas or Topeka as I talk with superintendents around the country. In rural areas of Kansas, the infrastructure simply is not present in some areas to provide Wi-Fi, and the issues we experienced were experienced in those areas. In larger districts beyond Kansas, resources for hot spots for thousands are limited, and it forces districts to limit access. Broadband services and devices are a fundamental need, much like clothes, shoes, etc. Families simply cannot access services without it and currently the marginalized suffer the greatest, which is widening the economic and academic gaps rapidly.

Connectivity Gaps Create Academic Access Gaps

As students began to rely exclusively on remote learning (during peak virus transmission times of the the pandemic), the importance of having a digital device at home was paramount. In addition to effecting access to classrooms, it directly effected access to electronic college admissions applications that previously scholars completed at school. Students needed a device at home and one at school, much like we did years ago with textual materials which allowed students to work from anywhere at any time without interruption. The pandemic issues reduced the ability to share materials, and device availability for use both at school and at home was key to learning without device issues. Families relied on the device, and access to their school, for Telehealth services, parent conferences, social work access, academic access, tutoring and for access to the extracurricular programs that continued while in a remote learning setting. Due to the health guidelines at this time, all parent conferences are remote and the student's device will be used as we host the student-led parent conferences with families.

Through the initial E-rate funding, Topeka Public Schools provided 1:1 devices to preschool – 12th graders. Middle and high school scholars have been taking devices home over my 5 years in Topeka, and have been using that same device at school as they transported it to and from school. As with any item that is transported between school and home daily, there are challenges with the upkeep of the item for it to last. The prior E-rate funding provided one device along with funds to address the equipment challenges such as power cord needs and back-up devices to use while others are repaired. In Topeka, our teachers have become future-ready instructors and technology specialists as we assist to keep up with the over 13, 000 student technology needs of our scholars. Our teachers need the continued investment for our students to provide the highest quality of education possible.

Once the pandemic began, all students in preschool through high school needed connectivity with their device to take home. We collaborated with Cox Communications to offer reduced cost services with fees to free/reduced lunch families covered

by grants. Our local libraries were instrumental in helping with connectivity for families who needed access to schools that were no longer accessible for in-person communication. We are thankful for the original E-rate funding to provide pre-school through high school age scholars with devices; however, the needs remain for expanded support, resources and connectivity. The needs include hot spots, power cords, devices, as we provide support and ongoing upkeep and device replacement plans to maintain devices.

Category I Funding - Internet Services

An essential component of the E-rate program is Category I funding, which primarily covers internet services for schools and libraries. Eligible schools and libraries receive discounts between 20-90% for the cost of internet access based on the percentage of students who qualify for the federal free or reduced lunch program. For high-poverty schools, this support is essential. As current economic conditions disproportionately impact our low-income families, many schools will find themselves with a higher percentage of families who qualify for free or reduced lunch, and therefore fully funding the program this next fiscal year will require more than a simple adjustment for inflation. The high-poverty schools throughout this nation need your reassurance that Category I will be fully funded to satisfy the demand we will face.

Category II Funding - Network Infrastructure

Another component of the E-rate program is Category II funding, which primarily covers network infrastructure hardware and security appliances. Continued funding of these essential tools will allow students to access the internet safely and securely from our classrooms. Without this support, schools may not be able to provide consistent connectivity or provide consistent protections that keep our students safe from non-educational content that is otherwise available on the internet. While our schools have come a long way in providing connectivity to our students, without up-to-date equipment and security measures in place, these tools cannot be reliably used to educate our students. Therefore, high poverty schools throughout the nation need your assurance that Category II funding will also be fully funded.

The Challenge of the Digital Divide

The E-rate program, along with support from other federal and state funding resources, has helped school districts drive the inclusion of digital learning resources. Topeka partnered with Discovery Education so that all students can access the many resources it provides if they have adequate connectivity. Students and staff are able to meet other schools, attend virtual field trips, and hear from speakers far beyond Kansas through the connected resources we have available. Like many districts, Topeka serves special education children who rely on assistive technology to speak and engage with others. Connectivity for our special needs population is key. These learning resources provide opportunities for students to engage in rich learning experiences that stretch beyond the walls of their classrooms. In short, we are bringing the world into their classrooms, allowing students to learn and grow within a global learning community. That is a tremendous success and can only continue if we meet the growing needs through support for the E-rate program and broadband expansion.

While, many of our students have the opportunity to extend their digital learning beyond the classroom by connecting at home with a family-owned computer or their district-issued devices, others do not have the same level of opportunity. Many living in poverty move from home to home, and as the pandemic has killed many adults, more of our children are in foster care nationally, more are in shelters and many face lack of infrastructure in the community they live within. Equitable access for all must mean equitable access for all. The families who are not living in poverty who have access are at a significant advantage over their peers, and that often begins before kindergarten and continues throughout their K-12 experience. They have the privilege of greater access which directly impacts the opportunity gap and feeds generational poverty. As more digital learning resources replace traditional textbooks and other tangible resources in the classroom, the disadvantage to high-poverty students intensifies because these resources are not as accessible in their homes as the resources are in the homes of their privileged peers. Furthermore, the level of extended learning opportunities, both extra-curricular and co-curricular, and the level of digital socialization or digital problem solving, is sharply different between the homes with access to the internet and homes without. Every year of disadvantage compounds the problem for our students with the highest level of needs. E-rate and broadband can be the disruptor and the bridge to greater access and opportunities for all.

The U.S. Census Bureau's [report from 2018](#) based upon 2016 research, observed that 81% of households had a broadband connection of some sort within the home. Yet, a portion of those households deemed "smartphone only" households were predominantly low-income households identifying as either "Black" or "Hispanic." The census study further concluded that

nearly half of all households were considered “high connectivity households,” with a variety of tools available for internet access. Roughly 99% of households with an annual income above \$150,000 had a computer, and 96% have a broadband connection subscription. On the other hand, only 72% of households earning less than \$25,000 reported having a computer, and only 58% reported having a broadband connection in the home. While these figures may seem encouraging on the whole, the socio-economic disparity this data represents is alarming, and every year of disadvantage multiplies the risk of poverty and its impact on student achievement and economic prosperity for us all.

Category III Funding - Proposed E-Rate Expansion

The E-rate program is ideally suited to address the challenges of the digital divide. By expanding E-rate eligibility to include funding for districts to reimburse high-poverty families for a basic standard of in-home broadband service, we can close the digital divide this year! If schools districts throughout the nation were guaranteed a comparable subsidy level for providing access to students within the home as we do within the classroom, then high-poverty schools would have the tools necessary to provide high quality digital learning resources that can extend the learning beyond our classroom walls.

The recent pandemic has forced many school districts to face this challenge creatively armed with only limited funding often issued to us after the tough decisions had to be made. At Topeka Public Schools, we supported our remote and virtual learning during the pandemic by using a portion of our pandemic-related CARES Act funding opportunities to pay for internet services that were necessary for our families to connect student-issued devices to the online learning resources and teacher interactions to keep our students engaged. We spend roughly \$30,000 per month on this initiative and have connected roughly 60% of our families who are eligible for free or reduced lunch benefits. We want to do more to help our families, but we are mindful that the resources that have been allocated to this effort are both temporary and limited. However, an expansion of the E-rate program to address the national emergency that is our digital divide would solidify this effort and help us help our high poverty students catch up to their peers.

Emergency Broadband Benefit

To help households connect during the pandemic, the new Emergency Broadband Benefit program will help many of our Kansas families that are struggling to pay for internet service during the pandemic. With this new benefit, we will be able to keep more students connected to the classroom. Kansas ranks 28th in broadband access compared to other states. So many of our families are priced out of the market. Discounted broadband service for eligible households and those on tribal lands will further help us to bridge the digital divide.

Tribal connectivity

The group of people most impacted by the lack of internet access in the United States are Native Americans. According to the Federal Communications Commission (FCC), over 600 thousand Native households lack access to standard broadband. This is a rate that is four times higher than the general population. The American Indian Policy Institute (AIPI) concluded in a 2019 study that one in five residents on any given reservation do not have internet access in the home. The issue has been ongoing for many years, but with the added strain of COVID-19, the impact of having no broadband access is heightened. Issues related to healthcare, education, employment, and some of life's basic needs have to be handled primarily through the internet.

Under this bill, Native American tribes are eligible for much needed funding to improve connectivity on Native lands. In Kansas, there are four federally recognized resident Indian tribes that have reservations: the Kickapoo Tribe in Kansas, the Prairie Band Potawatomi Nation, the Iowa Tribe of Kansas and Nebraska and the Sac and Fox Nation of Missouri in Kansas and Nebraska. According to broadbandnow.com, 73.86% of the Kansas tribal zip codes have wired broadband and 16.03% have affordable wired broadband. The Kickapoo Tribe in Kansas has 73% access to wired broadband and 47% access to low priced wired broadband, the Prairie Band Potawatomi Nation has 46% access to wired broadband and 5% access to low priced wired broadband, the Iowa Tribe of Kansas and Nebraska has 78% access to wired broadband and 71% access to low price wired broadband and the Sac and Fox Nation for Missouri in Kansas and Nebraska has 76% access to wired broadband and 71% access to low priced wired broadband,

According to [internetsociety.org](https://www.internetsociety.org) in a May 15, 2020 blog, COVID -19 is a contributing issue that brings the awareness that a lack of internet access is a detriment and negatively impacts the Native American population. The main concerns cited are the need for telehealth and mental health awareness in times of isolation. The blog post also notes that the Government Accountability Office (GAO) has consistently called out the FCC for allowing spectrum radiowaves and other telecommunications to be inaccessible to tribal nations.

Angelina Newsom, a Northern Cheyenne Tribal member, wrote in an article posted on onezero.medium.com of her own experiences dealing with her lack of inaccessibility in a world that relies heavily on broadband access. She points out the educational and economic shortfalls faced by her community due to this issue.

From an educational standpoint, Newsom explains that online courses are often less expensive than traditional in-person college courses. However, without broadband access, many indigenous people forego higher education opportunities due to the expense, travel time and the need to stay and provide for others. This, in turn, leaves many Native Americans without the ability to better their situations and that of their communities.

Newsom also notes that as remote employment rates rise, many Native Americans do not have the opportunity or resources available to apply for and perform those jobs. This is yet another contributing factor to high unemployment rates among Native Americans, especially those living on more remote reservations or in rural areas. Often those who wish to work and find employment must commute to other communities where the risk of exposure to COVID-19 is elevated. Many Native American communities already have a shortage or limited access for healthcare.

Telehealth services are in great demand and are a very useful tool as the nation faces the pandemic. However, not having broadband access leaves part of our population without access to adequate, available, and on-demand healthcare. As of December 2020, the COVID mortality rate for Native Americans was twice as high as any other racial or ethnic group in the nation. Without broadband access, in short, Native Americans are once again dealt the short end of the stick. The denial

of basic, human needs is being withheld. The need for access to ordering food for pickup at a store, the need for educational opportunities, the need for physical and mental health attention...to deny these basic needs is wrong.

In order to ensure the deployment of robust broadband across all of America's tribal lands, the FCC must commit to a sustainable, concerted effort to incentivize service and infrastructure development within them. This was vital before the pandemic, and now, it is absolutely crucial to the continued health and safety of some of our most vulnerable citizens.

In the past, Native communities have suffered immense tragedies due to a lack of critical infrastructure and aid. During the 1918 flu, these areas were affected four times more than the general population, according to a 2014 study published in *American Indian Quarterly*. At least 3,200 Native Americans died during that time, including [72 of 80 residents](#) at the Inupiat village of Brevet Mission, Alaska.

To prevent history from repeating itself, we must act quickly to provide crucial communications and telehealth aid to communities who need it the most.

Summary

Free public education provided books, pencils and paper many years ago that students took home and utilized. Now, our device is our textbook, our electronic tools such as the mouse are the pencils and, for students who have special education needs, their voice is often through the assistive technology that is heavily dependent of adequate WiFi. Education is a basic civil right and to allow our scholars to access this right, funding resources supporting E-rate and broadband services are essential. Today, many of our students cannot share their digital learning resources with their families, because they cannot access them at home. This disadvantage can be eliminated with an expansion of the E-rate program that is already aligned to achieve these results. With your support and commitment to equity, I urge you to make a strong investment in the future of our students, and ultimately in the future of our economy, as we strengthen the connectivity across communities. It is the shared responsibility of all Americans to ensure that we provide equitable educational resources, and this is done, in part,

by closing the digital divide with affordable, broadband available to everyone and with schools having resources to provide the devices so many rely on.

The budget reconciliation under consideration by this Committee provides funds available from the Emergency Connectivity Fund for the purchase of needed equipment and advanced telecommunications and information services for schools and libraries, including tribal libraries and tribal government buildings, during this public health crisis. Please support Subtitle D, Chapter 2, section 3312 of the Budget Reconciliation.

A handwritten signature in black ink that reads 'Dr. Tiffany Anderson'.

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