

# BUILDING EDUCATION EQUITY

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Understanding the  
Digital Divide among  
Children in the Sault  
Sainte Marie Tribe of  
Chippewa Indians

## Broadband has become an invaluable tool that enhances nearly every facet of life...

school, work, health, community engagement, and even entertainment have online components. Through broadband, people can have immediate access to information, streamline tasks, and utilize tools that simplify their lives. Broadband is no longer a luxury, but rather a necessity.

Yet, even in today's digital age, millions of Americans are disconnected from the web because of monthly broadband costs, underdeveloped broadband infrastructure, or limited computer ownership. Nationally, 12.9 million Americans report not having an internet subscription and 6.6 million say they don't own a computer<sup>1</sup>. These households fall on the wrong side of a Digital Divide.

There are, however, some populations that are more impacted, including Native Americans and those living on tribal lands. One study from the United States Census Bureau indicates that nearly 1 in 6 Native American and Alaska Native households (16%) does not subscribe to home broadband service<sup>2</sup>. Nearly twice as many households on tribal lands (29%) fall on

the wrong side of the Digital Divide. These findings highlight the urgent need to expand broadband access and adoption in Native American communities.

Because of the prevalence of technology in today's society, broadband and computer access are essential for everyone. This is especially true for school-aged children where broadband access is necessary to complete homework, collaborate with peers and teachers, and study. These tasks typically require a computer and a fast, reliable internet connection. Without reliable internet or access to a computer at home, students are at a higher risk of falling behind academically, struggling to complete assignments, and receiving lower grades compared to their peers with better technological access. In some cases, these challenges can result in students failing to graduate, limiting their future career opportunities and educational advancement.

This study focuses on the Digital Divide among households with children in the Sault Ste. Marie Tribe of Chippewa Indians in northern Michigan. The goal is to further

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<sup>1</sup>U.S. Census Bureau's American Community Survey (2023 5-Year Estimate): Types of Computers and Internet Subscriptions. <https://data.census.gov/table/ACSST5Y2023.S2801?q=S2801>

<sup>2</sup>U.S. Census Bureau. (2024). American Indian and Alaska Natives in Tribal Areas Have Among Lowest Rates of High-Speed Internet Access. Census.gov. [https://www.census.gov/library/stories/2024/06/broadband-access-tribal-areas.html#:~:text=Compared%20to%20the%20national%20average,ACS\)%%201%2Dyear%20estimates](https://www.census.gov/library/stories/2024/06/broadband-access-tribal-areas.html#:~:text=Compared%20to%20the%20national%20average,ACS)%%201%2Dyear%20estimates)



understand the rate of computer ownership and internet access in these households and how it could impact families who are on the wrong side of the Digital Divide.

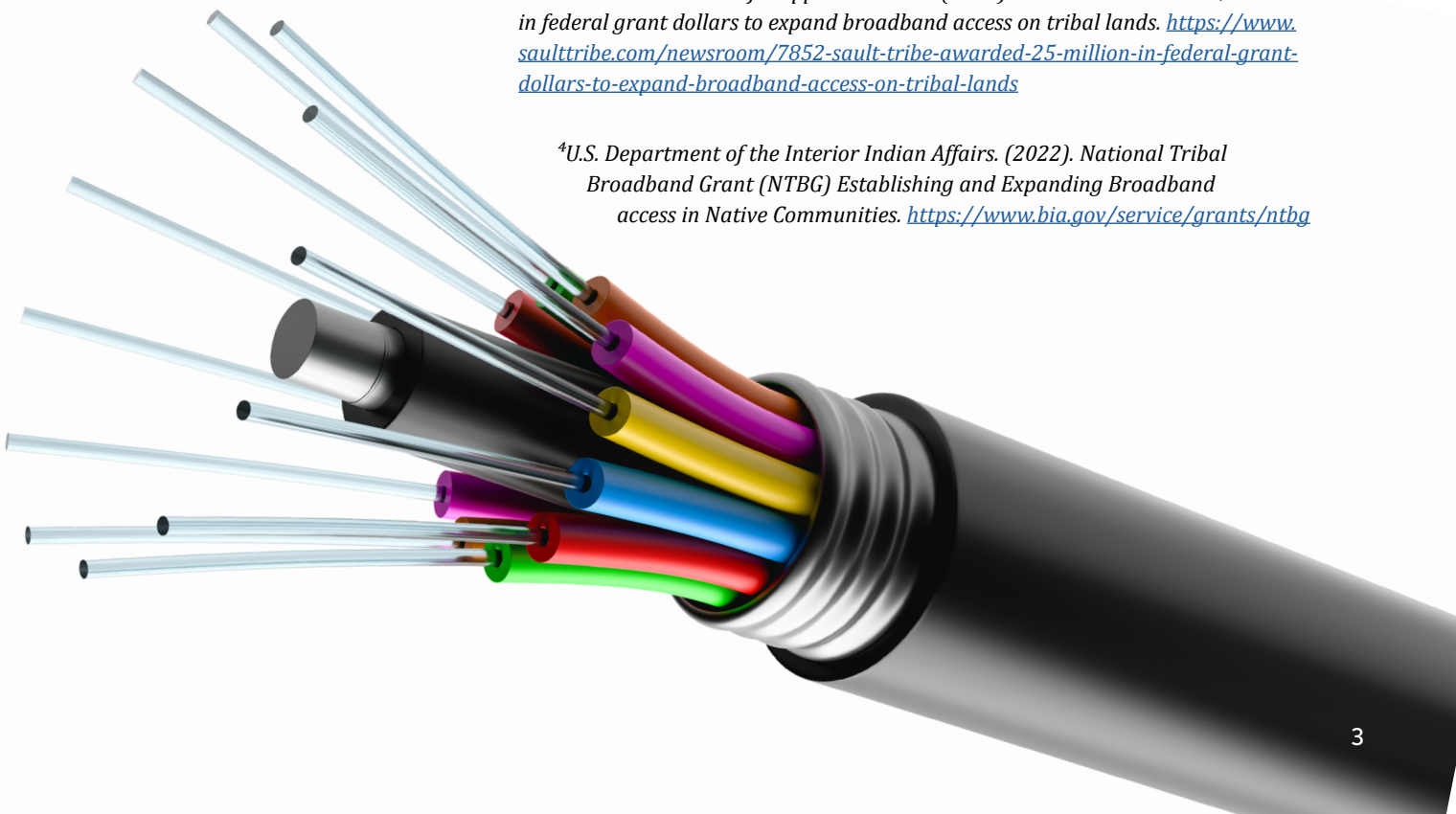
The Sault Ste. Marie Tribe of Chippewa Indians leadership has been proactive in ensuring the expansion of broadband access to all tribal members. In 2022, the tribe was awarded a Rural Development Broadband ReConnect grant with the goal of expanding high-speed internet access by

installing a fiber-to-the-premises network on the tribe's Reservation Lands<sup>3</sup>. The tribe was also a recipient of the National Tribal Broadband Grant for the identification of broadband delivery options, construction costs, and improvement of current service<sup>4</sup>. Plans also included the surveying of Sault Tribe members and identifying their current need. Through their efforts, it is evident that tribal leadership recognizes the tremendous impact that broadband will have on their community.

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<sup>3</sup>Sault Ste. Marie Tribe of Chippewa Indians. (2022). Sault Tribe awarded \$25 million in federal grant dollars to expand broadband access on tribal lands. <https://www.saulttribe.com/newsroom/7852-sault-tribe-awarded-25-million-in-federal-grant-dollars-to-expand-broadband-access-on-tribal-lands>

<sup>4</sup>U.S. Department of the Interior Indian Affairs. (2022). National Tribal Broadband Grant (NTBG) Establishing and Expanding Broadband access in Native Communities. <https://www.bia.gov/service/grants/ntbg>



The COVID-19 pandemic shed light on the Digital Divide in education where schools, teachers, and students often did not have the technological resources required to switch to online learning at home. During the pandemic, 38% of parents nationwide said their children had to use public Wi-Fi to complete schoolwork because they didn't have reliable internet at home, to complete assignments on a cell phone, or were unable to complete homework because they did not have a computer<sup>5</sup>. This form of the Digital Divide was commonly referred to as the Homework Gap. Yet, even five years after the global pandemic, some children still live in households without internet and computers.

The Homework Gap most commonly impacts low-income families, marginalized communities, those living in rural areas, and households with multiple school-aged children<sup>6</sup>. Short-term consequences include incomplete homework assignments, lower grades, and failure to graduate, while long-term consequences include inadequate digital skills, fewer career opportunities, and economic instability<sup>7</sup>.

When it comes to educational outcomes among Native Americans students, absenteeism and low academic performance are much higher compared to other student populations in the U.S. This is in part due to the history of abuse and poor treatment of Native Americans in boarding



schools and other institutions that used education as a means to strip Indigenous Peoples of their culture<sup>8</sup>.

This traumatic past continues to impact Native American students today. One study showed that a connection to tribal resources in school and culturally aligned curricula helped students perform better<sup>9</sup>. Aside from creating a culturally inclusive and relevant curriculum, broadband expansion and technology access is another way to prevent further isolation and exclusion of these communities, as well as increase academic performance.

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<sup>5</sup>Pew Research. <https://www.pewresearch.org/short-reads/2020/09/10/59-of-u-s-parents-with-lower-incomes-say-their-child-may-face-digital-obstacles-in-schoolwork/>

<sup>6</sup>Institute of Electrical and Electronics Engineers. (2023). *Consequences of the Digital Divide in Education. Connecting the Unconnected.* <https://ctu.ieee.org/blog/2023/01/30/consequences-of-the-digital-divide-in-education/>

<sup>7</sup>Institute of Electrical and Electronics Engineers. (2023). *Consequences of the Digital Divide in Education. Connecting the Unconnected.* <https://ctu.ieee.org/blog/2023/01/30/consequences-of-the-digital-divide-in-education/>

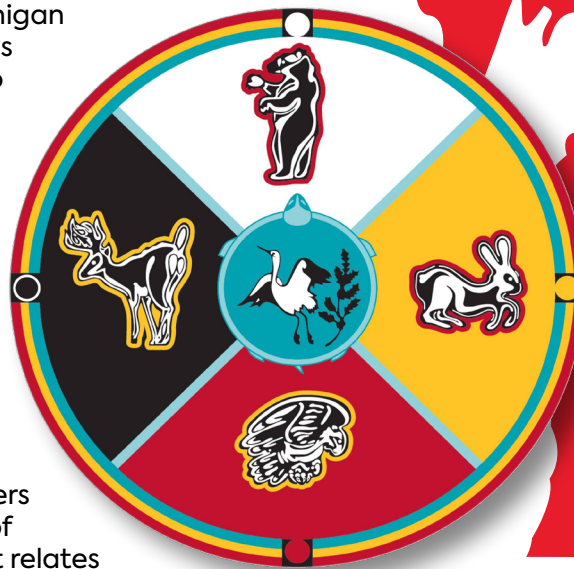
<sup>8</sup>Lee, Morgan, et al. (2024). *Native American students missed school at higher rates for years. It got worse during the pandemic.* PBS. <https://www.pbs.org/newshour/nation/native-american-students-missed-school-at-higher-rates-for-years-it-got-worse-during-the-pandemic#:~:text=Out%20of%2034%20states%20with,higher%20than%20the%20state%20average>

<sup>9</sup>Barlow, Chris. (2022). *Addressing the Growing Crisis of Struggling Native American Students.* School Mint. <https://blog.schoolmint.com/addressing-the-growing-crisis-of-struggling-native-american-students>



In 2023, Connected Nation Michigan partnered with the Sault Ste. Marie Tribe of Chippewa Indians to conduct a survey of 940 member households to assess their perceptions and use of telehealth services. The goal of this effort, supported by the Michigan Health Endowment Fund, was to help identify challenges to increasing telehealth usage among tribe members.

With these same data, we analyze the rate of computer ownership and internet subscription among households with school-aged children under the age of 18 (n=189). The objective of this study is to better understand the Digital Divide among members of the Sault Ste. Marie Tribe of Chippewa Indians and how it relates to educational outcomes for children in these households. To determine the rate of computer ownership and internet subscription, we analyze how households with children answered the following two questions: 1. “Do you subscribe to internet service at home?” and 2. “Does your household have a computer? This could include a desktop, laptop, or tablet device.” By analyzing

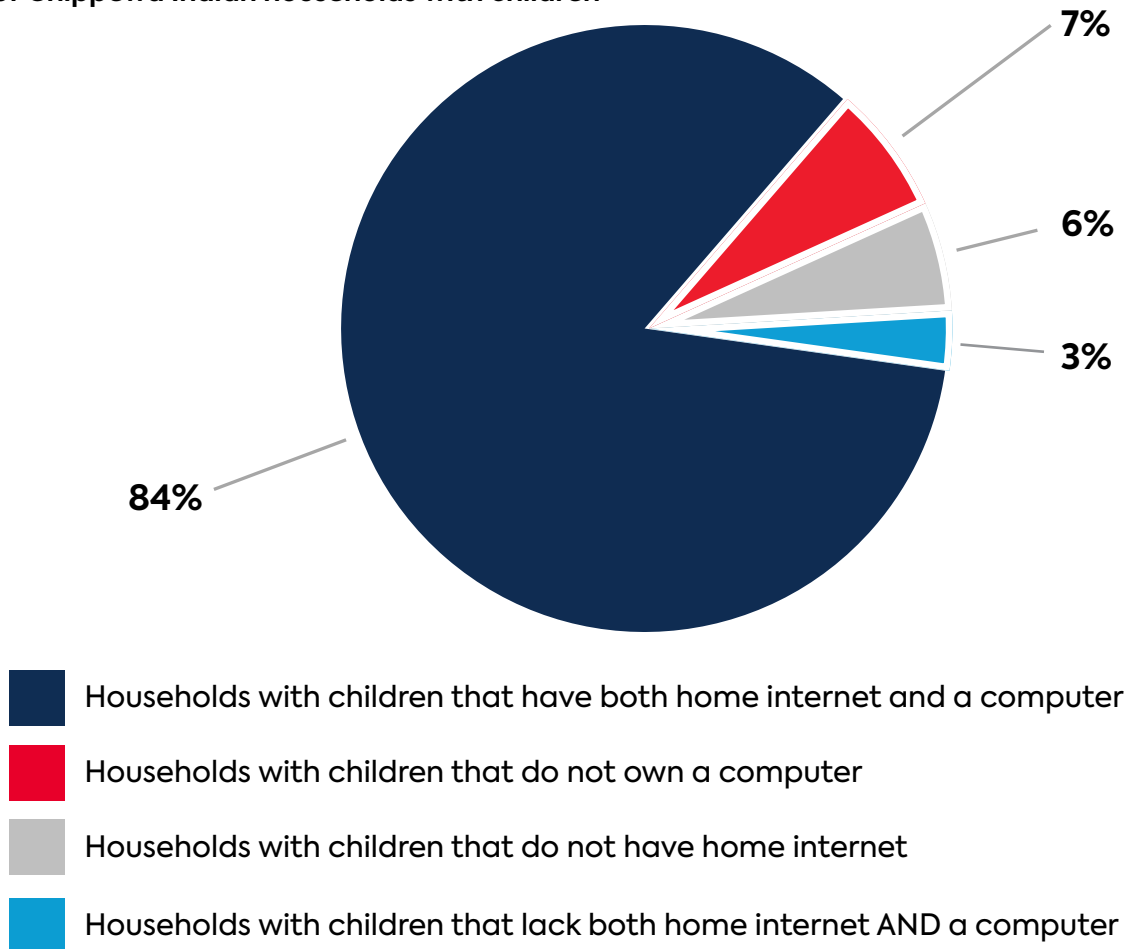


these responses, the study aims to provide insights into the Digital Divide within the tribe, identifying where their needs are greatest when it comes to broadband access and computer ownership.

The initial analysis reveals that 84% of respondents with children have both home internet and a computer. However, approximately 1 out of 6 households (16%) fall into the Digital Divide in some way. When

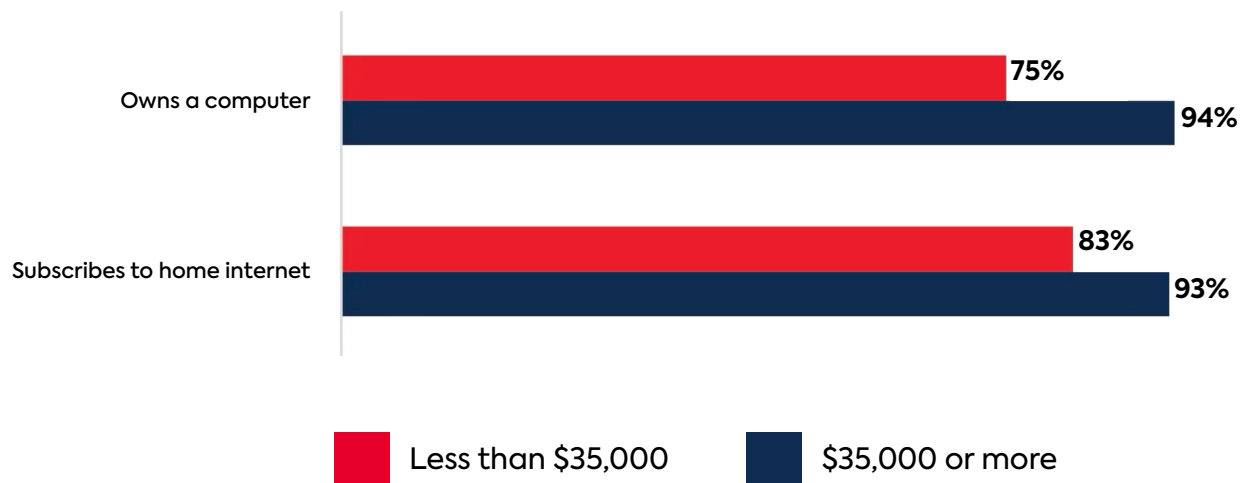
disaggregated, 7% of households do not own a computer, 6% do not subscribe to home internet, and 3% lack both a computer at home and an internet subscription (Figure 1).

**Figure 1. The Digital Divide among Sault Ste. Marie Tribe of Chippewa Indian households with children**



This implies that the children living in these households do not have the appropriate technology in their house to complete online school assignments and other forms of online learning.

**Figure 2. Computer ownership and internet Subscription among Sault Ste. Marie Tribe of Chippewa Indian households with children by annual household income**



Income appears to be the most significant determinant of whether households have internet access or own a computer. Most respondents with an annual household income above \$35,000 have access to the internet and a computer, with 93% reporting that they subscribe to home internet and 94% saying they own a computer (Figure 2).

On the other hand, in households with an annual household income below \$35,000, only 75% of the households own a computer, meaning 1 in 4 children do not have computer access at home.

Internet subscription rates decline in

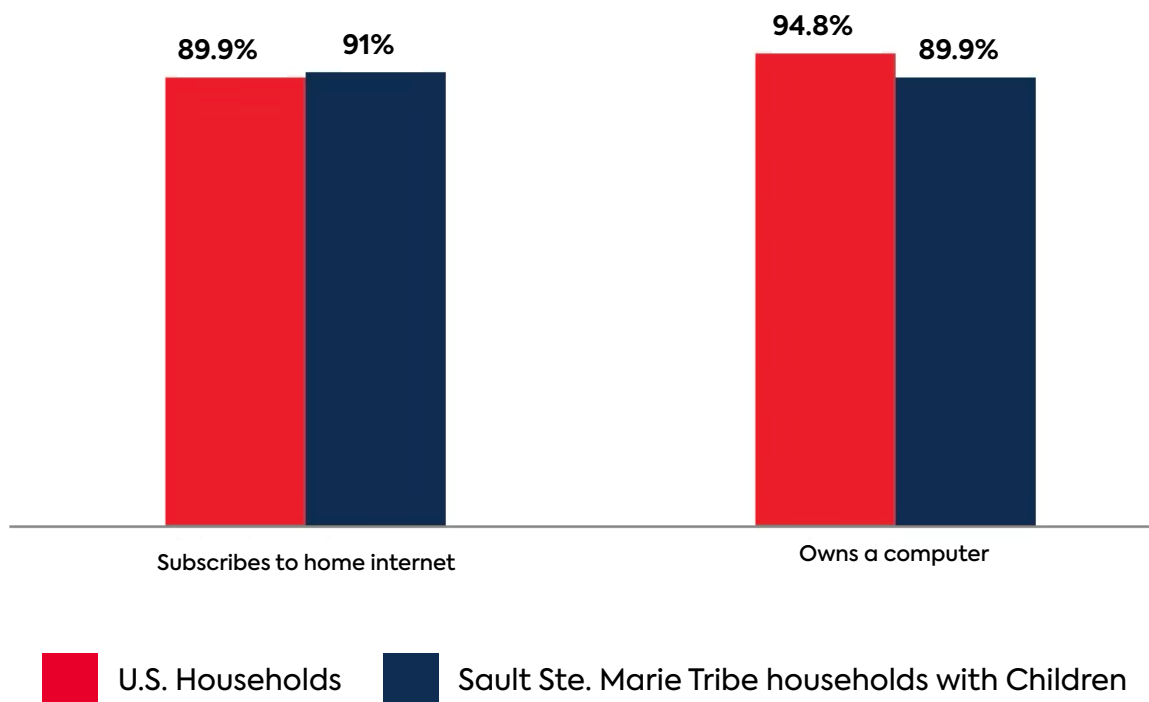
these households as well, with 83% saying they subscribe to home internet. These results illustrate that the cost of the internet and computing devices can be a hindrance to access for many households.

The data from the Sault Ste. Marie Tribe of Chippewa Indians were also compared to national data from the U.S. Census Bureau to assess their standing in the broader Digital Divide context. Tribal households with children are slightly below the national average in terms of computer ownership, while rates of internet adoption are slightly above the national average.

<sup>10</sup>U.S. Census Bureau's American Community Survey (2023 5-Year Estimate): Types of Computers and Internet Subscriptions. <https://data.census.gov/table/ACSST5Y2023.S2801?q=S2801>



**Figure 3. Sault Ste. Marie Tribe of Chippewa Indian households with children compared to U.S. households**



This suggests that while internet access in the tribe is relatively strong, there is a clear need to improve computer ownership among these households with school-aged children. Identifying where households face the greatest gaps in terms of technology access is crucial

for local organizations, such as schools, non-profits, or government agencies, so they can tackle the Digital Divide where the need is most prominent. In this case, it may be best to start with increasing access to computer devices in households with children.

This research highlights the need for targeted interventions to bridge the Digital Divide. Increasing access to the internet and technology is the first step in building a foundation that sets students up for successful futures. An absence of the internet and technology can create a significant barrier for children in school without these resources available to them. Children in these households may have to rely on smartphones, which are often not compatible with all computer programs, to complete homework, which is significantly more challenging and time consuming. Others may have to rely on resources outside of the home like libraries, restaurants, and other structures where free Wi-Fi is available. The barrier for some students may be too great, which can make it unable for them to complete their online homework assignments.

The long-term consequences for children who grow up in homes without internet and technology extend beyond the classroom. These students who struggle in primary education may face similar challenges if they want to pursue a college education. Without a college degree, some young adults may be presented with fewer job opportunities, since more jobs require the use of computers. Without higher education or digital literacy skills, some may have to settle for lower paying jobs, which therefore impacts their economic status.

Concerns about these challenges have led the tribe to take several steps toward closing this Digital Divide. Through grants, they seek to expand broadband access and connect people to medical care, job opportunities, and remote learning<sup>11</sup>. Furthermore, the tribe conducted outreach

by sharing information regarding the Affordable Connectivity Program (ACP) while it was still in effect<sup>12</sup>. This program offered a subsidy up to \$75 towards internet costs for qualifying households on tribal land, or \$30 for households located elsewhere, and a one-time discount up to a \$100 to purchase a computer. Efforts such as this are particularly helpful for families with children who fall into the Homework Gap.

Through their actions, it is clear that tribal leadership understands the immense impact the internet and technology have on community development. The Sault Ste. Marie Tribe of Chippewa Indians has made significant strides in broadband expansion for their community and has collaborated across the board with tribal leaders and government agencies to bring affordable and reliable internet to the region.

## Conclusion

The expansion of internet and related technology is critical for all school-aged children, but particularly for children in Native American households who fall into the Digital Divide at a much higher rate. The tribe has taken several steps toward closing that Digital Divide for all its members, including the use of funding to expand broadband in the region, surveying tribal members to identify their greatest technological needs, and sharing valuable resources for tribal households that help bring them online. These efforts should continue to be supported to ensure that these challenges are being addressed. Improving computer and internet access for all families will help provide more economic and educational opportunities for the tribe, giving its children a brighter future.

<sup>11</sup> Sault Ste. Marie Tribe of Chippewa Indians. (2022). Sault Tribe awarded \$25 million in federal grant dollars to expand broadband access on tribal lands. <https://www.saulttribe.com/newsroom/7852-sault-tribe-awarded-25-million-in-federal-grant-dollars-to-expand-broadband-access-on-tribal-lands>

<sup>12</sup> Sault Ste. Marie Tribe of Chippewa Indians. (2023). Affordable Connectivity Program. <https://www.saulttribe.com/newsroom/8049-affordable-connectivity-program>



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