
Connectivity Blueprint:

*Digital Equity Roadmap for
Ramsey County and Saint Paul*



Leadership Letter

To our community partners and collaborators,

Thank you for your commitment to prioritizing digital inclusion as essential to the future of Ramsey County and Saint Paul. Simply put, digital equity is the foundation of an equitable future and an inclusive economy. We can't achieve equity in jobs, healthcare, education, services and more without also creating a future where everyone has the connections, devices and skills they need to succeed online.

The pandemic accelerated the movement of opportunities online – and, as a result, accelerated our work toward digital inclusion for the East Metro. Today, through the Connectivity Blueprint, we have a clearer picture of the challenges to getting and staying online that can add important understanding as Minnesota crafts its statewide digital inclusion strategy.

We are grateful to the entire Connectivity Blueprint steering committee, a cross-sector group of leaders from schools, businesses, nonprofits, and philanthropy. The breadth and reach of these leaders illustrate the far-reaching impact and consequences of digital inequities. We hope that the lessons and strategies of the Connectivity Blueprint can now spark action of equal breadth.

Sincerely,



*Trista MatasCastillo,
Ramsey County Board of Commissioners*



*Nelsie Yang,
Saint Paul City Council*

Co-Chairs Letter

To our communities,

Digital inclusion is the foundation of an equitable future and an inclusive economy.

This reality is abundantly clear in 2023, after the COVID-19 pandemic shone an undeniable light on the Saint Paul and Ramsey households that lacked access to fast, reliable internet and the devices needed to reach online opportunities. Our first partnership in 2020 distributed Techpaks that included hot spots for internet connections and internet-ready devices to Ramsey County and Saint Paul households struggling to get online in the move to online school, work and more.

Our collaboration taught us three important lessons:

1. The world has gone digital. From jobs to school to healthcare and more, the future belongs to those with the tools and skills to succeed online.
2. Device and subscription give aways alone will never get us to a digitally inclusive Ramsey County and Saint Paul.
3. Collaboration is essential for success when faced with challenges as complex as achieving digital equity.

From these lessons, the Connectivity Blueprint was born. We've been grateful to work with an enthusiastic and empowered Steering Committee that appreciates the consequences and urgency of digital inclusion. Added collaborations with community-

based organizations and the consulting team have helped ensure that the Connectivity Blueprint is grounded in the experiences of people facing barriers to digital inclusion first-and-foremost.

Our hope is that the findings and strategies in the pages that follow can provide a blueprint for everyone working on digital inclusion in Ramsey County and Saint Paul. The stories and data compiled by SDK offer information to look at digital inclusion from a community-first perspective. And the recommendations are meant to offer a mix of turn-key ideas and broad-based strategies that can get us all closer to digital inclusion.

We're grateful for your interest in the Connectivity Blueprint, and look forward to ongoing community partnerships in pursuit of digital inclusion as the foundation of an equitable future and an inclusive economy.

Sincerely,



Ling Becker,
Director of Ramsey County Workforce Solutions

Drew Nelson,
Saint Paul Deputy Director of Technology

Steering Committee

STEERING COMMITTEE

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Ramsey County Workforce
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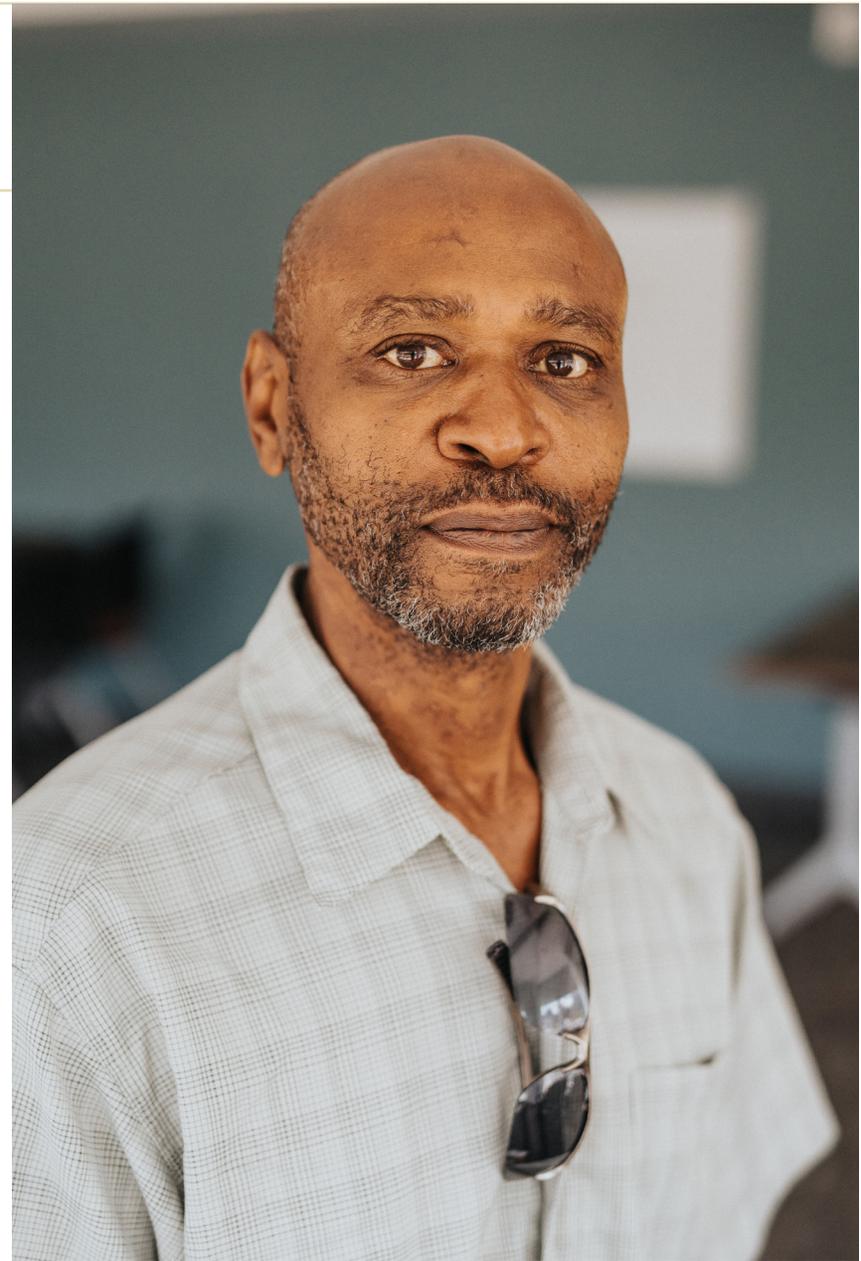
Ramsey County

Department of Corrections

Neighborhood House

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The portraits in this report are of project interviewees. Participants were compensated for their time.

Introduction: About Connectivity Blueprint

The pandemic exposed the inequities of digital access and the growing consequences of the digital divide. Across public health, public safety, the future work force to economic prosperity, from social engagement to advancement in education, and those intertwined with the criminal justice system, participation in the digital world stands to close or expand the Twin Cities' deep inequities. While COVID-19 exacerbated this divide, understanding the strategies for long-term solutions remains both the opportunity and the challenge.

As a result of the pandemic's lessons, the Connectivity Blueprint is an initiative to create Saint Paul and Ramsey County's community-guided roadmap for digital equity. The initiative has been led by Ramsey County, Saint Paul and a steering committee of experts. SDK Communications + Consulting has led engagement and policy work to ensure that the final Connectivity Blueprint is grounded in a person-centered approach, first and foremost. AppGeo has provided broadband mapping and technical expertise to the project.

This final report presents a community-centered view on the digital divide in Ramsey County and Saint Paul with a focus on equity.

Definitions

Digital inclusion is a complex and ever-evolving topic. Technology is constantly changing, people's uses and needs are changing, and the economic and policy landscape around digital equity changes almost daily. SDK has relied on the following definitions throughout this report:

Equity: "Equity is about fairness. It is a solution for addressing imbalanced social systems. So long as imbalanced social systems remain in place, treating equity is not synonymous with equality. Equality is providing the same to all regardless of what they start out with. This will produce unfair outcomes so long as imbalanced social systems remain in place. Equity is about fairness. Equity is providing what individuals need to reach the same outcome. In order to act equitably, we must recognize that we do not all start out with the same resources or opportunities." *(City of Saint Paul)*

Broadband: Broadband Access refers to access to an internet connection, whether cable, fiber, DSL or wireless (fixed or mobile). However, the speeds that qualify as adequate broadband access continue to evolve. As of Feb. 2023, the

Federal Communications Commission defines broadband as 25 megabytes per second download speed and 3 megabytes per second upload speed, known as 25/3. Minnesota held this definition of broadband until just after the Connectivity Blueprint wrapped its engagement work in the fall of 2022. The state now defines broadband as 100 megabytes per second download and 20 megabytes per second upload, or 100/20.

Full Connectivity: Full connectivity is defined as having access to broadband with sufficient upload and download speeds, a computer or tablet, a cell phone, and a cell plan.



The Three-Legged Stool

Prior to the COVID-19 pandemic, the accepted policy framework regarding digital inclusion was a metaphor of the “Three-Legged Stool” of affordability, accessibility and digital skills.

- 1. Affordability:** Can people afford devices and broadband internet connections?
- 2. Accessibility:** Are the wires in place to get people online?
- 3. Digital Skills:** Do people have the tools to maximize online opportunities?

Pre-pandemic research also pointed to a belief among some people and communities that smartphones provide sufficient internet access to meet their needs, and broadband internet is not required. However, findings of the Connectivity Blueprint show this belief is held by only a small segment of people.

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Digital Inclusion is the Foundation for an Equitable Future

Digital inclusion is the foundation for an equitable future and an inclusive economy. Jobs of the future, education and health care continue to move online. Access to a robust broadband connection and internet-enabled devices, as well as the skills needed to leverage these tools, is key to unlocking economic opportunity and all the quality of life benefits the internet has to offer.

Many people that have been historically excluded from opportunity — particularly communities of color, those with disabilities, the aging, low-income households, rural populations, homeless and displaced persons, and those involved with the criminal justice system — are at risk of being further left behind if we do not achieve full digital inclusion.



“Perhaps the silver lining of COVID-19’s dark cloud is the increased awareness that the current system for supporting access to high-speed broadband has failed.”

COVID-19 Ushered in a New Digital Normal

The COVID-19 pandemic, and the quarantine that it required, pushed people online to a degree that fundamentally changed American expectations regarding the role of internet in daily life. High-speed internet access is no longer a luxury, it’s a must-have in terms of equitable employment and education opportunities, as well as key quality of life factors such as access to healthcare and staying connected to family and friends.

“Our reliance on the internet during coronavirus has recast how we will behave after the crisis has passed,” says Tom Wheeler, a visiting fellow in Governance Studies at The Brookings Institution. “The big lesson is that we have incorporated the internet as a critical part of our personal and professional lives. This is not going to change. The crisis has sped us forward to a paradigm shift in which we rely on the internet to bring economic and social activity to us—rather than us going to them. Perhaps the silver lining of COVID-19’s dark cloud is the increased awareness that the current system for supporting access to high-speed broadband has failed.”

Lessons of the Pandemic

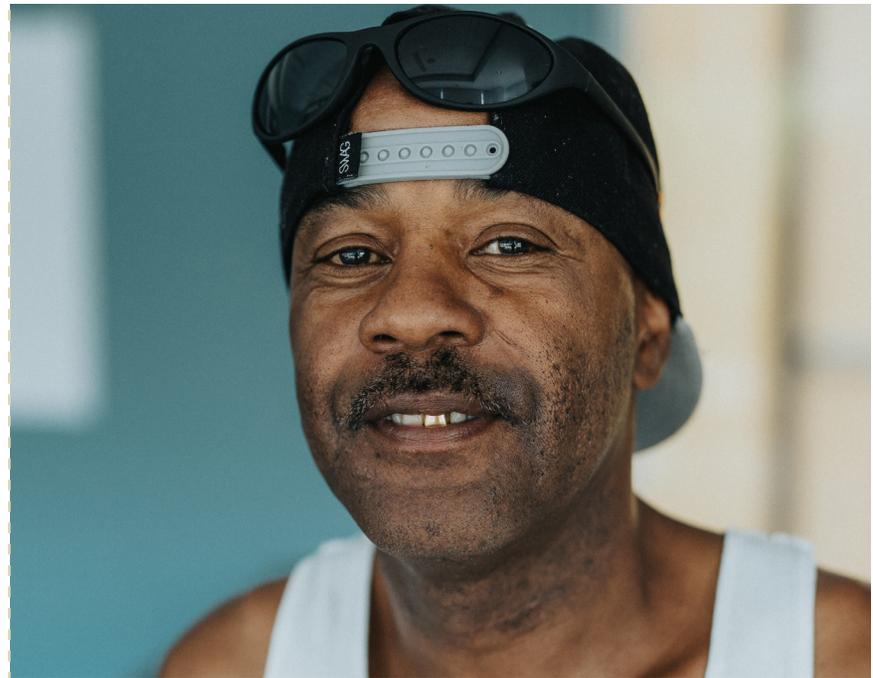
The COVID-19 pandemic revealed the crippling effects of the digital divide. It showed that the digital divide is not simply an infrastructure issue, and the gap won't be closed by adding more broadband wires alone. Unfortunately, communities of color are disproportionately left behind from online opportunities – and stand to benefit the most from added opportunities to fully participate in online life.

Consider consequences of the digital divide that the pandemic exposed:

- **Education divides widened during the pandemic.** Students of color experienced more days of online learning, as well as more connectivity and device challenges than white students according to a recent analysis by McKinsey¹. The education consequences of the digital divide are devastating — Students of color lost 12 to 16 months of education progress in the pandemic due to more online learning and less connectivity. White students, on the other hand, only lost five to nine months of learning due to more reliable online resources and less online learning overall. In Saint Paul, over a one-week period in 2020 — and despite the broad deployment of wireless Internet hotspots and district-owned iPads — one in every six students never logged on². Attendance studies reported the pandemic exasperated the already significant and tangible achievement gap.

- **Internet access proved to be a life-or-death service.**

A one percent increase in internet access was shown to reduce COVID-19 deaths by 19 people per 100,000, all else being equal, according to a national analysis by Tufts University³. Put simply, people in communities with low internet access were more likely to pass away from COVID-19 than in areas with ample internet. This data illustrates just how consequential a lack of high-speed internet access can be in a world that assumes everyone is connected.



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The Opportunity of Digital Inclusion

Digital inclusion stand to unlock untold benefits, especially for people of color, such as:

- **High-speed access is a “Super Determinant of Health.”** Community leaders increasingly recognize that access to things like stable and sufficient income, healthy food, reliable transportation, clean air and stable housing are the primary drivers of people’s length and quality of life. This concept is called the Social Determinants of Health. Researchers at the US Center for Disease Control consider reliable access to high-speed internet a “Super Determinant of Health” in a 2019 article. That is, social determinants of health are simply inaccessible without fast, reliable internet access⁴.
- **Future jobs are online and rely on online skills.** Jobs of the future are moving online and requiring digital skills. In many cases, digital literacy is considered a “gate” skill – a necessary foundation for a number of added job skills. In fact, McKinsey & Company estimates that 4.9 million low wage workers nationwide will need to build their digital skills just to remain employable in the digital economy.¹ This job market of the future is being built on a foundation of significant employment inequity, according to the Minneapolis Federal Reserve, making it even more crucial that people of color are provided the digital job skills necessary to remain engaged in the economy.
- **Telehealth is making healthcare and specialists accessible like never before.** People in Minnesota receiving health care online, via telehealth, increased to more than 30 percent of all medical visits and 82 percent of all mental health care visits at the start of the pandemic⁵. Even as the pandemic subsides, telehealth has proven to be an effective tool for people with limited transportation or childcare access, and those with jobs that make scheduling in-person medical appointments hard. It’s also helped people of color and those of different cultures to have greater access to healthcare providers who share their racial or cultural background, even if those providers are in different towns or states. Taking advantage of these healthcare opportunities requires consistent broadband access.
- **From voting and taxes to food benefits and probation, public services are going online.** State and local governments invested heavily in online infrastructure during the pandemic, and many public services are expected to remain remote even as the Public Health Emergency subsides. In Ramsey County, many local corrections officers are managing probation meetings remotely. Registering for and receiving benefits like Women Infants and Children (WIC) can now be done online. Driver’s licenses, court hearings and more have also moved online, and many continue to be managed virtually even as the pandemic subsides. High-speed internet access is essential to accessing these public services, and many more.

Broadband Policy Context

Federal Policy Context

Broadband internet has been a topic of growing interest for decades but has not been the subject of significant federal laws in recent years. Instead, prior to the pandemic most internet regulation had been decided by the Federal Communications Commission (FCC) or through the National Telecommunications and Information Administration (NTIA).

Telecommunications Act of 1996

At the federal level, the context for broadband policy and digital inclusion is rooted in the Telecommunications Act of 1996, at the dawn of the internet era. At the time this law was passed:

- Most internet was dial-up connections run over telephone lines and average speeds were 28.8 Kbps to 33.6 Kbps;
- The average internet user spent 30 minutes per month online⁶
- Fewer than 1 in 5 people had cell phones;
- Landline usage was higher than 90 percent.

The law put in place policy cornerstones that still influence broadband regulation and policy context today. SDK conducted key-informant interviews with several state regulators, and all referenced key aspects of the Telecommunications Act as influencing their management of current broadband policy. Key aspects of note include:

1. Taking a market-based approach to regulation.

The Telecommunications Act of 1996 was the first major overhaul of the telecommunications industry in decades. The law aimed to remove barriers to entry in the telecommunications industry broadly⁷. It deregulated cable television service, allowed local telephone companies to offer cable television services, and created penalties for transmitting indecent information over the internet³. While each of these provisions has some relevance to broadband internet and smartphones as they exist today, the technology and internet services have evolved far beyond.

2. Universal Services Administrative Company. One smaller aspect of the Telecommunications Act of 1996 with big consequences for the digital divide was the creation of the Universal Services Administrative Company (USAC). This non-profit organization receives a substantial portion of its funding from the federal government, but also receives money from internet service providers (ISPs). The USAC provides funding to run a few key programs that connect underserved communities to affordable and widespread phone and internet services and evolved over time. Some current USAC-funded programs that impact digital inclusion include:

- **The Lifeline Program**, which provides discounted or free phone service for low-income Americans, so that they can connect to emergency services (911), as well as family and employers. This program added cellular data as a phone option in 2008. In 2016, broadband internet was added as a support service in the Lifeline program.
- **The Rural Health Care Program**, which funds broadband and telecommunication services to increase high-speed connectivity in hospitals in order to provide better telehealth service in rural areas.
- **The Affordable Connectivity Program**, which helps low-income households afford broadband internet, and provides a discount of up to \$30 per month toward internet service for eligible households (up to \$75 per month for households on qualifying Tribal lands). Eligible households can also receive discounts to purchase a laptop, desktop computer, or tablet from participating providers.



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According to those interviewed, this market-based approach to telephone regulation is the primary federal context for internet regulation today. One person interviewed went so far as to suggest that state oversight of telecommunications could end in the next decade, as most regulations are grounded in telecommunications policy and landlines continue to face steep declines in use. This assessment is one illustration of where existing federal regulations have not evolved to account for the new, internet-based and cellular-based telephone services – and where telephone access, rather than internet access, is the utility that drives most regulation and consumer protections.

Net Neutrality

Net Neutrality is not a federal law or policy at this time, but it is the most substantial federal internet regulation debated in recent years. The core principle of Net Neutrality is that internet service providers (ISPs) must treat all data on the internet equally – just as an electricity provider must provide sufficient power to every subscriber equally, rather than provide dim lights and brown-outs to some and full power to others.

Net Neutrality would be a vast shift from the current system where ISPs – both cellular providers and cable/fiber broadband providers – sell tiered packages advertising different speeds. This current, market-based system for internet pricing means that people who can afford to pay more get greater access to faster speeds. Without net neutrality, customers with lower cost internet packages can see their internet run slower or drop calls during periods of high demand, like work hours when many people are on video calls. This prioritization of high-paying customers over lower-paying customers is creating tiered access to the opportunities of online life, even though the infrastructure used to access it is the same⁸.

The Federal Communication Commission (FCC) and courts both weighed in on Net Neutrality before the pandemic. Key dates of note:

2015 **FCC passed Net Neutrality rules for the first time.** Under these rules, ISPs had to treat every internet connection equally. Customers would get access to the full capacity of the wires regardless of what they pay for their service.

2017 **FCC rolled back net neutrality regulations.** New appointees to the FCC took action on a party-line vote of 3 to 2 to roll back net neutrality regulations in late 2017. Under the decision, high-speed internet delivery can no longer be regulated like a “common carrier,” the same way a phone line is regulated¹⁰.

2019 **Federal Appeals Court upholds the rolled-back regulations, with caveats.** This decision allowed the FCC to maintain the Net Neutrality repeal and overall scope wherein high-speed internet is not regulated like a “common carrier.” However, the Court ruling did add one important nuance: it gave states the latitude to pass and institute their own Net Neutrality laws and related regulations.

The pandemic struck just six months after the Federal Appeals Court ruling on Net Neutrality. Congress has not taken action on the regulation of internet services since the pandemic.

Minnesota Policy Context

Minnesota's broadband policy largely sits separate from telecommunications regulations and related issues. Until the pandemic, broadband access in Minnesota was largely talked about as a rural economic development issue. Broadband was viewed as essential to connect people in far corners of Greater Minnesota with access to information, jobs and healthcare services.

Since 2011, the "Minnesota Model" of broadband development and deployment has pursued border-to-border high-speed internet access with the Legislature's stated goal as high-speed internet (speeds of 25 Megabits per second (Mbps) download / 3 Mbps upload) by 2022. The state's effort has been led by the Office of Broadband Development at the Minnesota Department of Employment and Economic Development (DEED), and anchored by three key pillars:



Border-to-Border Infrastructure. From 2014 to 2019, Minnesota invested \$126 million in matching grants to fund to help every corner of Minnesota gain access to high-speed internet.



Coordination and Mapping. The Office of Broadband maintains maps of Minnesota's broadband access and available speeds, and facilitates coordination between federal, state, Tribal and local units of government in pursuit of fast internet for all.



Broadband Task Force. The Minnesota Broadband Task Force is a Governor-appointed group of cross-sector leaders charged with advising the Office of Broadband and the Governor's office on broadband policy.

Minnesota's Regulatory Entities

Minnesota has not substantively dealt with the regulation of broadband internet at a statewide level, aside from the economic development focus of the "Minnesota Model" noted. The 2019 Federal Court of Appeals ruling on Net Neutrality said that high-speed internet is no longer guided by "common carrier" regulations for telecommunications unless state policy directs as such. This further limited any potential involvement of state regulatory agencies. Still, some agencies do monitor or become involved with broadband policy at times. They are:

- **Minnesota Public Utilities Commission (PUC).** The PUC regulates telephone service providers and common carriers, which is beyond the scope of high-speed internet providers since the 2019 Supreme Court ruling. However, the PUC does become involved with internet expansion where it relies on federal infrastructure grants awarded by the FCC that are implemented in Minnesota. Any grant that the FCC awards to an ISP must be approved by the PUC of each state impacted by the project before construction can begin. The PUC also has the right to request consumer protections or other provisions of the ISP as part of the grant approval process. Those consumer protection requests would apply to all ISP customers (not just those receiving new fiber or cable wires). However, Minnesota has not historically made requests of ISPs.
- **Minnesota Department of Commerce.** The Department of Commerce (COM) is responsible for implementing telecommunications regulations and programs that ensure universal connection to basic telephone services. This scope includes designating "Eligible Telecommunications Carriers" and approving the carriers eligible to provide Lifeline services to low-income individuals. Commerce also oversees Minnesota Relay (Telephone Relay Services) and the Minnesota Telephone Equipment Distribution program, among others.
- **Minnesota Attorney General.** The Office of the Attorney General (AG) Consumer Protection Division tracks and may become involved with broadband and high-speed internet regulation from many perspectives. These include privacy perspective and consumer protections related to data, ISP pricing and consumer protections to ensure people experience advertised speeds, and more. The AG's office may also join other states in arguing specific topics. In 2017, Minnesota was one of the Attorneys General (Swanson) who joined together to contest the FCC's repeal of Net Neutrality. This case was decided in 2019 and empowered states to create regulations like Net Neutrality.

These narrow areas of regulation constitute the known scope of internet regulation in Minnesota.

The Pandemic: A New View on Broadband Policy

The COVID-19 pandemic radically changed the conversation about broadband policy and digital inclusion and brought the digital divide to the forefront as a key issue. During quarantine, there were stark differences in the experiences of those who were able to work and learn from the safety of home using a fast and reliable broadband connection compared to those who could not.

Realizing the urgent need to stem the tide of a widening digital gap, federal and state funding was allocated to digital connectivity for the first time. Minnesota invested \$180 million in broadband from 2021 to 2022 – more than the previous five years combined.

Some of the key sources of this funding include:

- **Coronavirus Aid, Relief, and Economic Security (CARES) Act:** The CARES Act of 2020 funding allowed Minnesota to make unprecedented investments in broadband expansion, with \$70 million spent in 2021 and \$110 million spent in 2022 to bolster its border-to-border strategy.
- **American Relief Program Act (ARPA):** The Rescue Plan (2021) provided \$350 billion to states and local governments to absorb expenses incurred during the pandemic. Funds were also eligible for certain infrastructure construction projects, including broadband expansion. Saint Paul and Ramsey County used some of this money to distribute computers and tablets to local schools. The City and County also launched TechPaks, providing

qualifying households with a tablet, hotspot, internet service subscription and internet skills support.

Digital Inclusion: A New Day in Broadband Investment

The federal Infrastructure Investment and Jobs Act (IIJA), passed in Nov. 2021, will bring unprecedented resources to broadband investment and, equally important, marks the first federal legislation to acknowledge and resource digital inclusion. Since the IIJA's passage, the FCC has also taken unprecedented steps to acknowledge and combat digital discrimination. Both policies point to a sea-change in the prioritization of broadband.

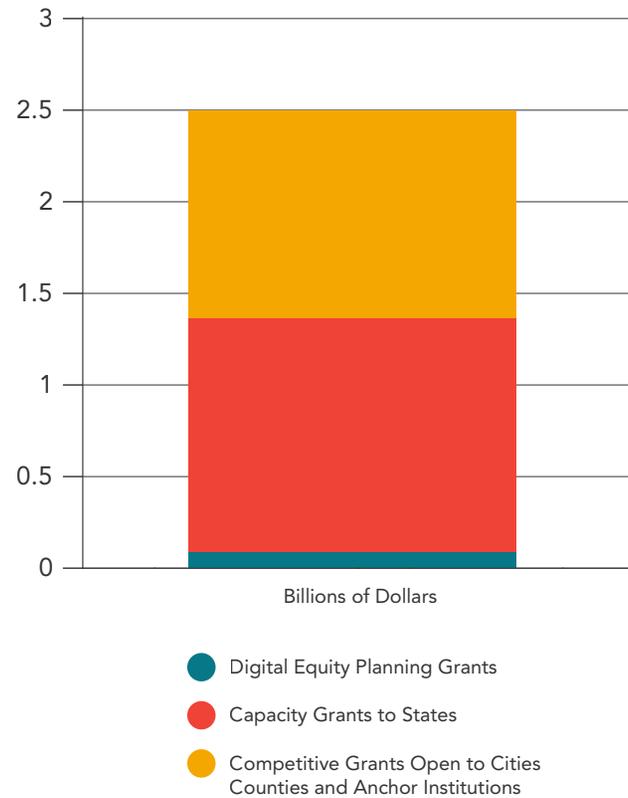
- **Infrastructure Investment and Jobs Act (IIJA):** The IIJA provides includes approximately \$65 billion for broadband expansion nationwide from 2022 to 2028. Minnesota has been awarded \$5.8 million to support planning efforts as a first step. Some key facets of the law include:
- **Broadband Equity, Access and Deployment (BEAD) grant:** The program will allocate \$42.5 billion to expand high-speed internet access. Each state will receive a funding allocation based on its population, and Minnesota estimates it will receive about \$650 million over the life of the program. Funding must first prioritize access to internet speeds of 25/3 Mbps statewide. Second priority of funding will go towards providing every location access to 100/20 Mbps. Funding will then prioritize providing 1-gigabit-per-second upload and download speeds to Minnesota community anchor institutions, including libraries and schools.

- **Digital Equity Act.** The IIJA set aside \$2.75 billion for digital equity, nationwide marking the first time digital inclusion has been explicitly resourced at the federal or state level. That includes \$60 million for planning grants to each state, \$1.44 billion in capacity grants to states, tribes and territories, and another \$1.25 billion available to local governments and anchor institutions through national, competitive grants. Minnesota will create its digital equity plan in 2023, which will serve as the guide for spending its future digital equity dollars.



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Digital Equity Funding Available, 2024 - 2028



Connectivity in Ramsey County and Saint Paul

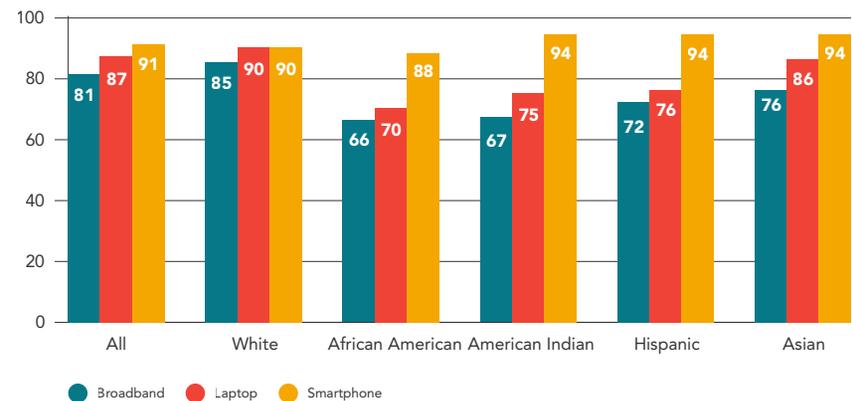
Lessons of the American Community Survey

SDK conducted analysis of American Community Survey (ACS) data on Ramsey County and Saint Paul residents. The data reflects American Community Survey responses 2016 to 2020, the most recent data years available at the time of research. Data evaluated included device access and broadband subscriptions, as well as race, income, age, and other demographic and experience variables.

Broadband and Device Divides are Substantial. A full 95 percent of Ramsey County residents report having some form of internet connection. The gaps in internet connection access across races are slight, but notable. Black households reported the lowest rate of internet connection (91 percent), and American Indian and Asian households in Ramsey County reported the highest rate of connection (97 percent). However, digging deeper into the components of full connectivity – having a broadband internet connection, laptop, and smartphone – exposed a significant digital divide across the County.

For example, while over 90 percent of American Indian residents have access to a smartphone, only around 75 percent have

Rates of Full Connectivity in Ramsey County



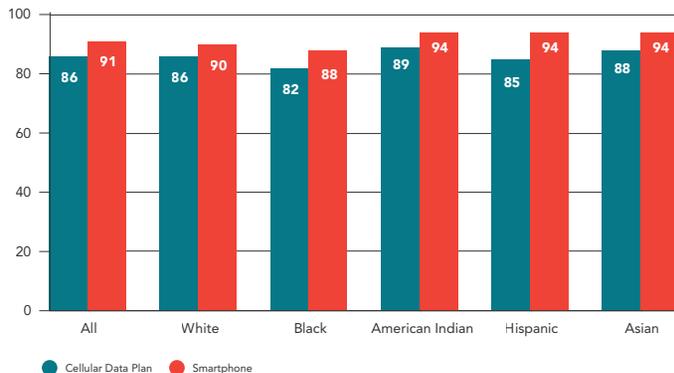
access to a laptop, and less than 70 percent have a broadband connection. Both laptop and broadband connections are needed to participate in online work, schools, and other benefits of online life. Similar connectivity gaps exist for African American and Hispanic communities. White residents, on the other hand, report high levels of ownership for smartphones, laptops, and broadband connections. This device divide could leave almost one third of African American and American Indian households behind.

Likewise, broadband connections are an area of significant inequities. In Ramsey County, 85 percent of white residents

report having broadband internet in their homes, but only 66 percent of Black residents and 67 percent of American Indian residents have access to at-home broadband. This nearly 20 percent gap represents a significant racial divide in access to the internet connections necessary for accessing opportunities in work, education, health, and more.

Smartphone Access is Nearly Universal, but Gaps Exist in Cell Plan Access. In Ramsey County, smartphone ownership is consistently high across racial and ethnic communities, ranging from 88 to 94 percent. However, there are significant gaps in prevalence of cell data plans. This is important because cell data plans ensure consistent access to making full use of the smartphone – and cell plans are often influenced by credit checks and require year-long contracts. People who report having a smart phone but no cell plan may rely on public Wi-Fi or other sources of connection to get online. This gap between smartphone ownership and cell plans is largest among Hispanic residents, at 9 percent.

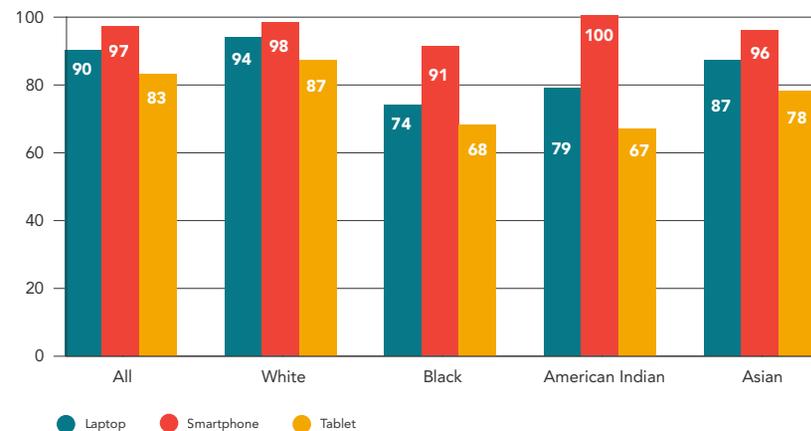
Ramsey County: Cellular Data Plans Gaps



BIPOC and Low-Income Families with School-Age Children are Impacted by the Device Divide. Although Ramsey County’s households with kids in school have high device ownership with approximately 90 percent overall owning a laptop, there is a consequential divide in device ownership by race. Black, American Indian, and Asian families own fewer laptops and tablets than white families, limiting access to online opportunities at home.

The same holds true for low-income families. Laptop ownership among households with kids living below the federal poverty line is 67 percent, compared to 87 percent for the county overall. Families earning less than 100 percent of the federal poverty line also report lower ownership of laptops, smartphones and tablets than those living below 250 percent of the federal poverty line.

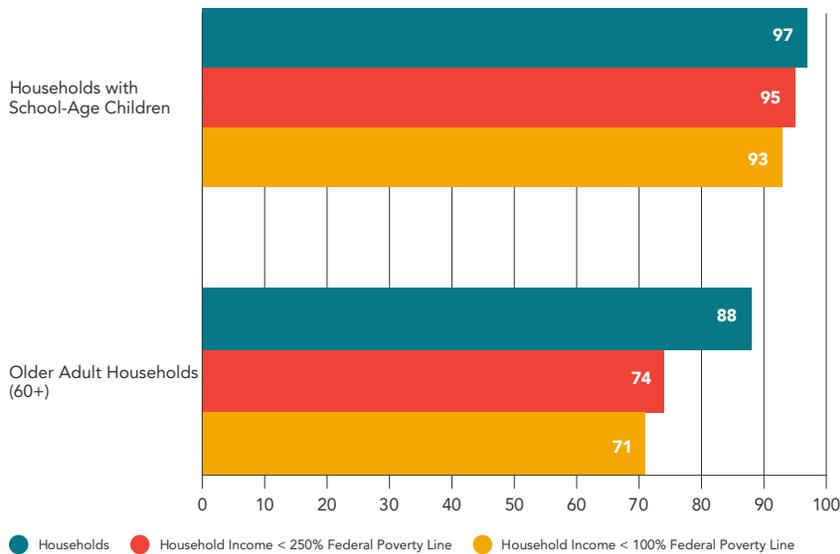
Device Ownership For Households With School-Age Children, By Race and Income



Older Adults Are Less Likely To Be Connected Than Families With Children – But Income Is A Factor Across Ages.

A full 88 percent of households of all incomes where older adults live are connected to the internet. However, that number drops substantially among older adult households in poverty, where just over 70 percent of households are connected. Households with school-age children are more likely to be connected, on the other hand. A full 97 percent of households in Ramsey County with school age children report having an internet connection. Even households with school-aged children with incomes below the federal poverty level are connected to the internet 93 percent of the time – a rate of connectivity that’s greater than connected older adult households of all incomes.

Self Report: Any type of internet connection

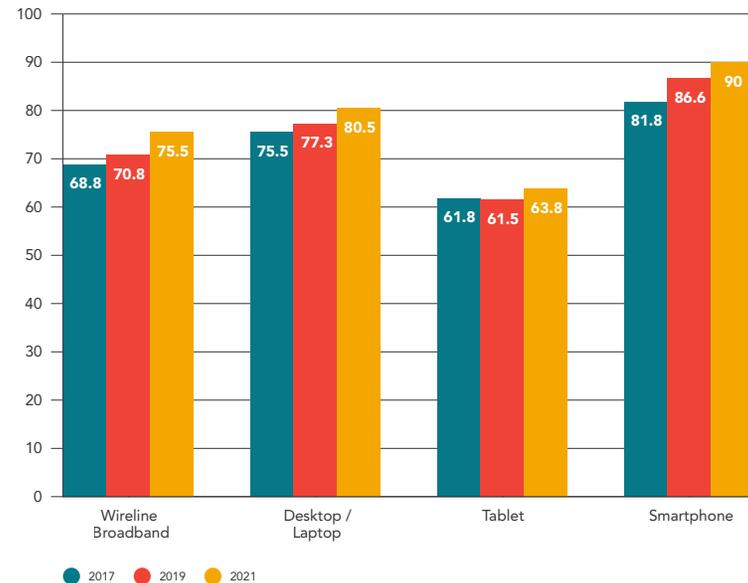


Connectivity Accelerated During the Pandemic Nationwide.

Across the United States, household adoption of broadband, desktops/laptops, tablets, and smart phones accelerated during the pandemic¹². Even desktop/laptop and tablet adoption, which decreased from 2017 to 2019, saw increases in 2021.

Nationwide, smartphone adoption didn’t reach 90 percent until 2021 while Ramsey County’s smartphone ownership was above 90 percent by 2020. Similarly, laptop ownership in Ramsey County was 87 percent by 2020. Ramsey County’s broadband adoption between 2016 and 2020 was also a full 10 points higher than the nation’s broadband adoption rate in 2019.

U.S. Adoption of Digital Tools 2017–2021



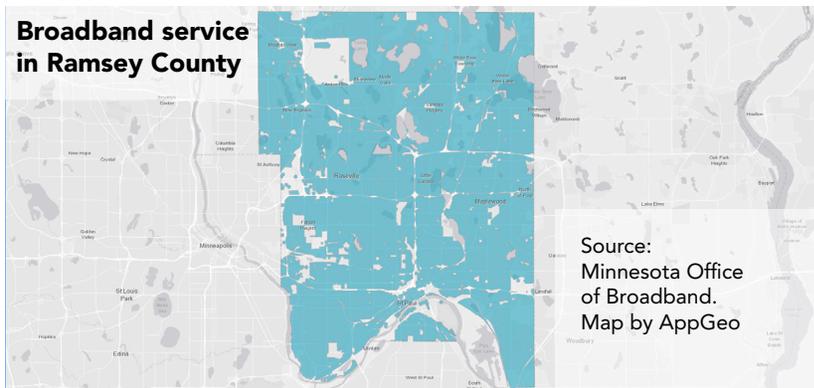
Source: American Community Survey, all U.S. holds.
Per Benton Institute for Broadband and Society

Mapping Wires + Connectivity

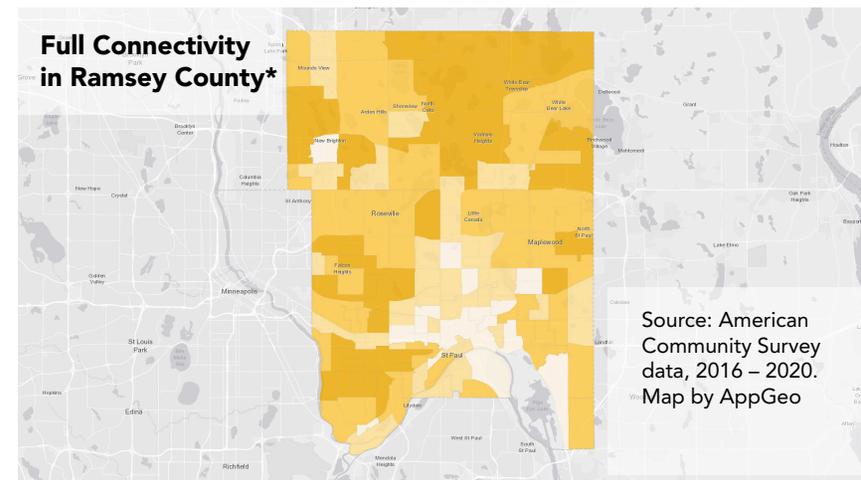
Broadband availability and full connectivity are two related but distinct ideas. Availability is the presence of sufficient wires to ensure broadband access at the state's targeted speed (in April 2022) of 25 Mbps upload / 3 Mbps download. Full connectivity is a measure of people with sufficient computers, laptops or smartphones and the cell plan and broadband subscriptions needed to take advantage of online infrastructure.

To illuminate this critical difference, two maps were directly compared against each other.

Minnesota's Service Map Shows Nearly Every Corner of Ramsey County Has Broadband Access. The blue map represents areas with broadband service (defined as 25 Mbps / 3 Mbps) in Ramsey County. The areas displayed in blue have been determined to have broadband availability. The map was created by AppGeo, the mapping partner on this project. Data was sourced from the Minnesota Office of Broadband Development in April 2022.



Mapping "Full Connectivity" Shows Gaps Remain*. The yellow map*, referred to as the "Full Access" map, symbolizes the percentage of households that report having "Full Access" to participating in digital life: a computer or tablet, high-speed internet service, and a cellular data plan. The darker shades of yellow indicate a higher percentage of households with full access within the given census tract. This map was created based on the U.S. Census Bureau's American Community Survey (ACS) data. It's worth noting that the yellow map shows connectivity in Ramsey County by Census tract, rather than Census block, because this scale was needed to ensure accuracy of data available. The connectivity map also looks at households with a computer, fixed internet subscription and data plan to ensure consistent measures from 2016 to 2020.

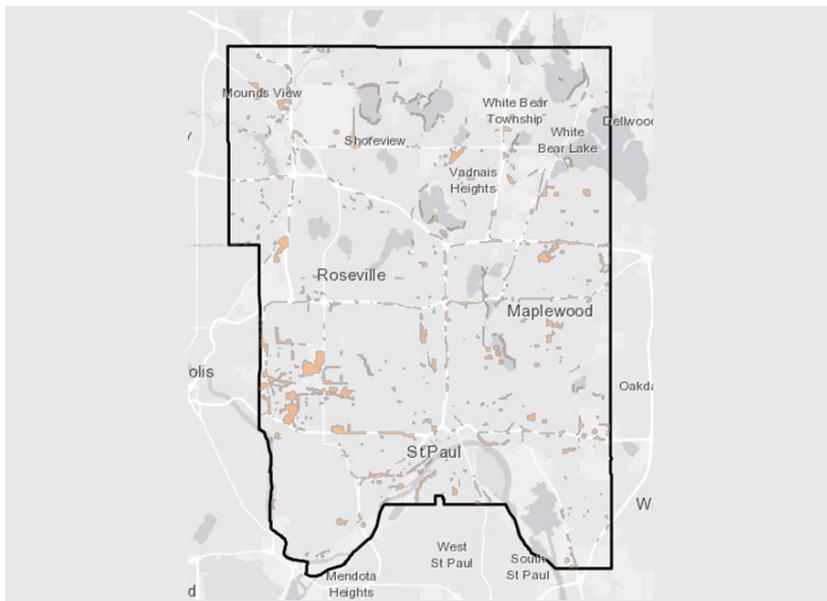


*This map shows connectivity in Ramsey County by census tract, rather than census block, because this scale was needed to ensure accuracy of data available. The full connectivity map also looks at households with a computer, fixed internet subscription, and data plan to ensure consistent measures from 2016 to 2020.

Fall 2022 Broadband Definitions Reveal Pockets Underserved.

In October 2022, Minnesota updated its target speeds for broadband, in keeping with modern data needs. This threshold for access was increased from 25 Mbps / 3 Mbps to 100 Mbps / 20 Mbps. By this definition, communities are considered “underserved” if their access to broadband is limited to speeds less than 100 Mbps / 20 Mbps, but greater than 25 Mbps / 3 Mbps. This underserved population is shown in orange on the map and demonstrates a number of communities with access to speeds that may not be sufficient for multiple people to access the internet at one time across a home. This data is sourced from the Minnesota Office of Broadband Development in April 2022.

Underserved by 2022 Definition

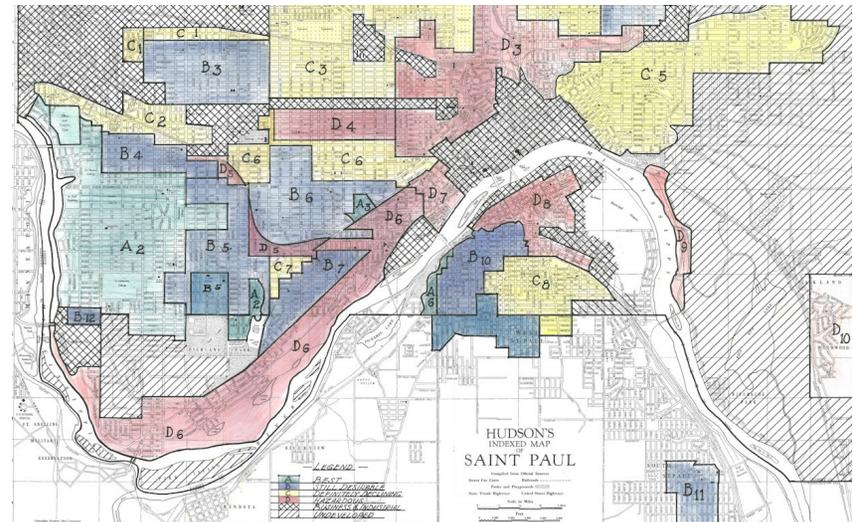


Source: Minnesota Office of Broadband. Map by AppGeo

Areas with Fewer “Fully Connected” Residents Often Fall Along Once-Redlined Communities.

Hudson’s Indexed Map is a map of Saint Paul that categorized certain neighborhoods in the city and across the country in the 1930s, making it harder to mortgage properties within “Redlined” areas. The red and yellow shaded segments represent neighborhoods that were labeled as “hazardous” and “definitely declining” by indexers in the 1930s and were most often home to people of color. When comparing this map to the “Fully Connected” map above, we can see that areas of systemic disinvestment almost a century ago are the same areas where Saint Paul and Ramsey County residents are at risk of further disinvestment and limited opportunity to access the opportunities of online life.

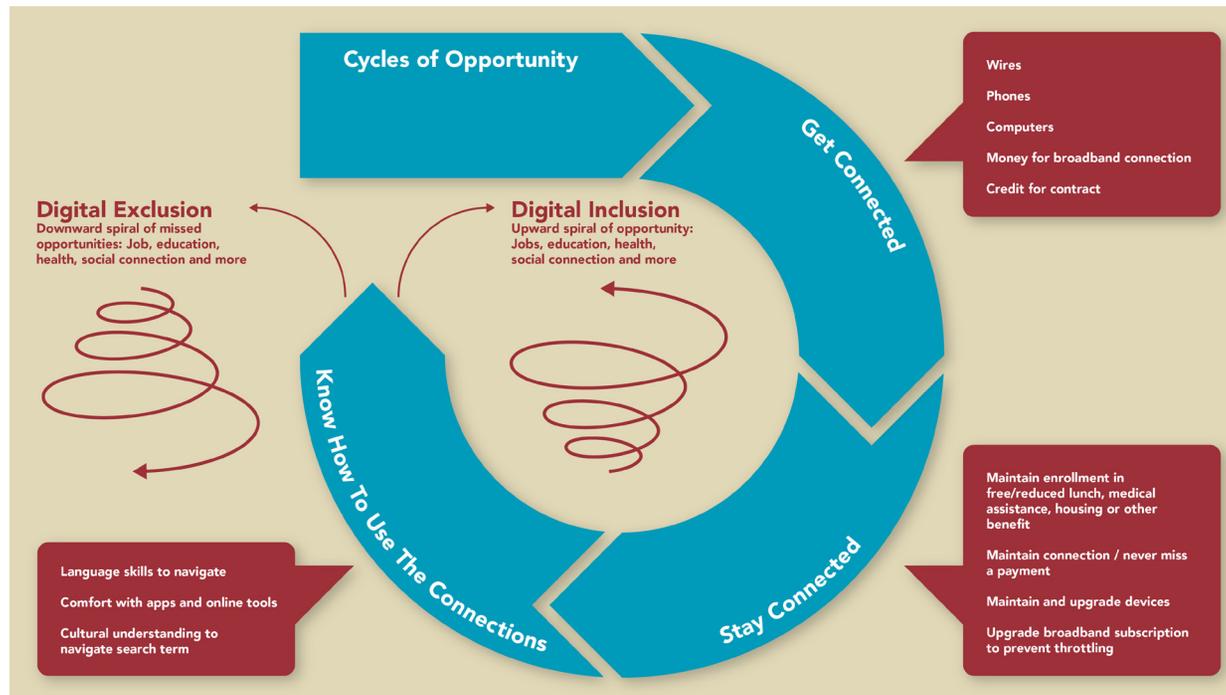
Hudson’s Redline Map of Saint Paul, 1934



Lessons of Engagement

Get Connected, Stay Connected, Know How To Use The Connection. In the summer of 2022, SDK applied several methods of listening and community engagement in Saint Paul and Ramsey County to better understand people’s ability to get online and their online priorities. The effort reached more than 250 people, and more than half of participants were people of color. Methods included focus groups, a written survey offered both in print and online in three languages (Spanish, Karen and Somali), translated interviews, and intercept interviews. The responses, detailed below, offer one of the first snapshots of digital equity following the pandemic.

Ultimately, responses are organized into a framework that offers a new, digital equity-focused approach to the three-legged stool:



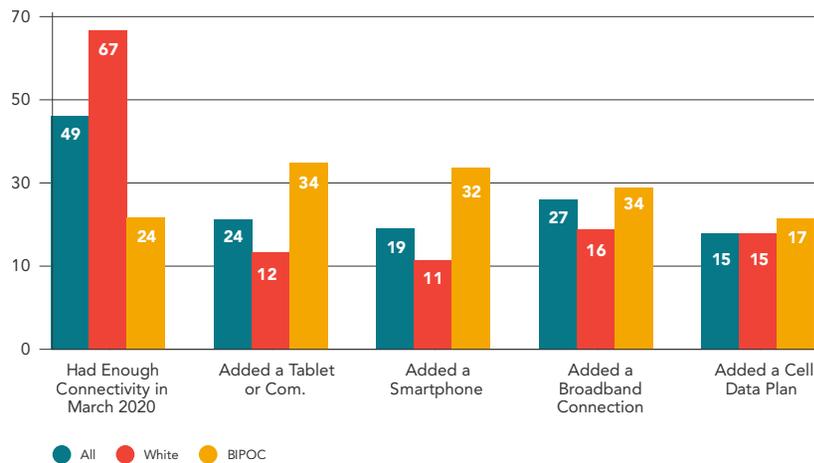
Get Connected

BIPOC Residents Were Behind

on Connectivity at the Start of the Pandemic. The Covid-19 pandemic pushed school, work, social connection and many other daily activities online.

When the pandemic started in spring 2020, less than 50 percent of survey respondents reported having enough connectivity for this transition, and the racial divides in connectivity are undeniable. Less than one in four BIPOC residents reporting they had enough connectivity. By comparison, over two thirds of white respondents shared they had what they needed at the time. BIPOC residents also reported adding more tablets/computers, smartphones, broadband connections, and cellular data plans at a rate double that of white respondents.

Describe Your Connectivity in March 2020



Communities of Color Experienced Challenges and Traumas Throughout the Pandemic that Made Experiences with Digital Inequity Even Harder.

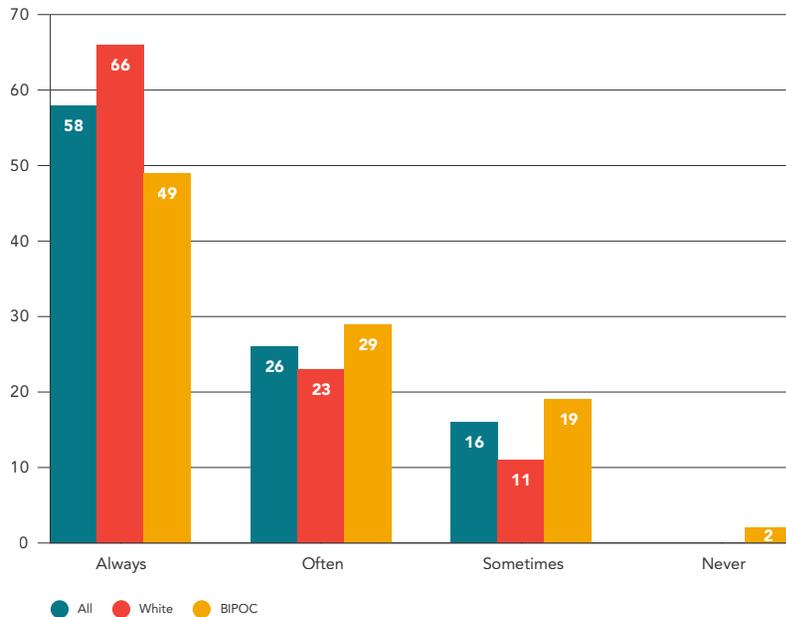
Interviews and focus groups began with a conversation about people’s experiences at the start of the pandemic. Across sessions, many people shared stories of trauma from the loss of loved ones during the pandemic, the murder of George Floyd and the unrest that followed, housing instability, and other factors that created significant challenges and added to the emotional turmoil of sheltering in place without full connectivity. A substantial portion of people interviewed changed their housing status in the two years since the pandemic – either having been homeless at the start of the pandemic and now housed; or currently homeless despite being housed at the start of the pandemic.

- “At the beginning of the pandemic, [I] actually was trying to move to Texas and ended up being trapped in a hotel, and moved through about \$8,000 because we couldn’t move... My son was still doing schooling, and we had problems with Wi Fi in that building. But other than that, our phones and stuff worked well, we kind of had to go out to the parking lot a lot and sit in the car to try to get him to do school, and it was a headache.”
- “During COVID I was working, and then my whole house had ended up getting COVID. We had COVID three times in my house. The first time my whole family had caught it, my son had stopped breathing, so that was really scary... I had to stop working and everything, and I was working at a gas station so I couldn’t work from home.”
- “And the pandemic happened, and everything shut down. It was hard for me to pay bills. You know, because I wasn’t, I was working a little bit. But it was hard for me to pay my bills. I had to turn off all my Wi Fi because I couldn’t afford it anymore.”

The Digital Divide in Ramsey County is Evident Today.

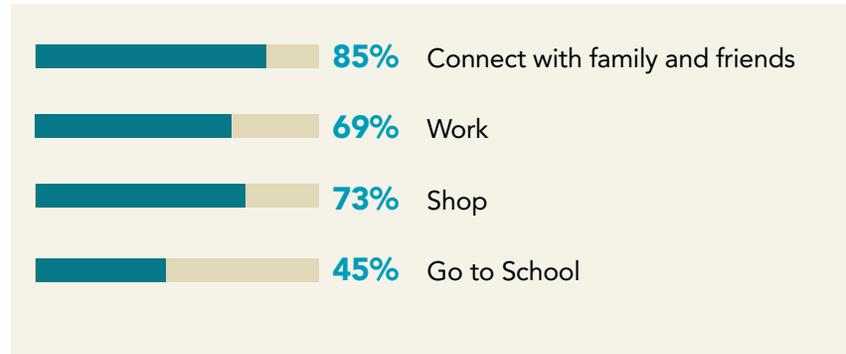
In the summer of 2022, two years after the start of the pandemic two-thirds of white residents reported always having what they need to get online, compared with just under half of BIPOC respondents who said the same. Conversely, almost 20 percent of BIPOC respondents report only having the technology and internet access needed to go online “sometimes,” compared with only 10 percent of white respondents.

How often do you have the technology and internet access needed to participate in online life as much as you would like to?

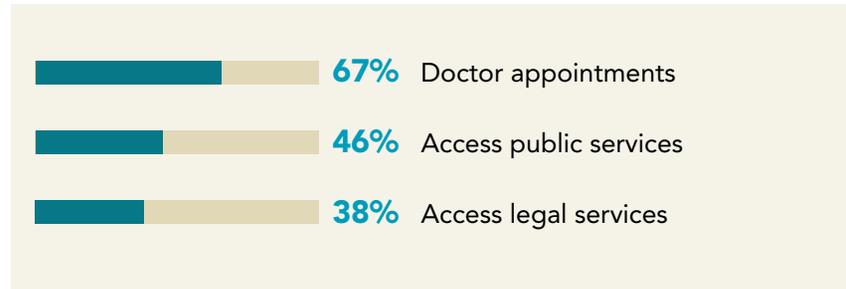


Online Life is Woven into Daily Life for Many. Across Ramsey County and Saint Paul, people rely on their connection to the internet for their daily lives.

Every day or week, Saint Paul and Ramsey residents report going online to:



Others are relying on internet access for occasional (monthly or rare) activities like:



Library, School, and Private Programs Aimed at Providing Internet Connections are Providing a Base Level of Connectivity. Many of the people interviewed talked about relying on hotspots, discounted internet services and/or discounted devices at the start of the pandemic. Others talked about using the Lifeline program for cell access. Each program is perceived by those interviewed as providing an internet connection that would otherwise be out of reach.

- “[The school], they gave us a hotspot. We’d use them. And sometimes we’d have to return them because they wouldn’t work well, or something like that. But you know, yeah, [the pandemic] was difficult sometimes.”
- “I got my phone and my tablet through someone else, because of the delay. It takes so long to get [the devices] through your food stamps. I had someone to get through their name because they already have their laptop and everything. I won’t get my actual phone and laptop until the end of this month because of the procedure.”
- “Some schools were offering boxes for kids, when everybody was getting the tablets and laptops and the Chromebooks, [and] free Wi-Fi as well. So I don’t know if that’ll be an option again with this upcoming school year. Some kids were able to get them and never had to return them.”
- “So there’s another tech department that kind of gives out our laptops. So when you go through the fellowship, and you get those computers, and you get the connectivity, I just put the referral. And so I don’t know exactly where they’re actually coming from. But I know earlier, someone was talking about the free [Wi-Fi] and I know some of the schools were given up the free technology.”



The portraits in this report are of project interviewees. Participants were compensated for their time.

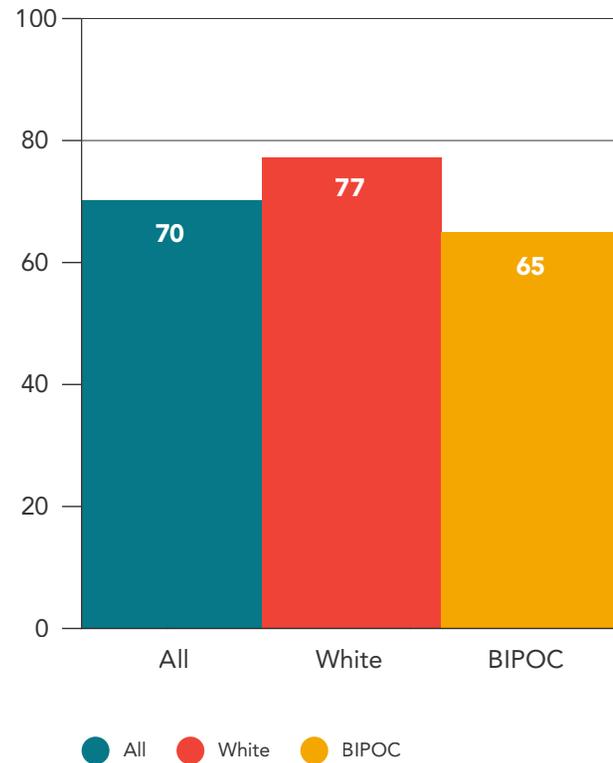


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Residents Believe Smartphones Aren't Enough to Unlock Opportunity Online.

When asked whether a smartphone is all they need to do everything they want online, 70 percent of all respondents disagreed. Seventy-seven percent of white respondents and 65 percent of BIPOC respondents shared the opinion that a phone alone is enough.

Most Respondents Believe A Smartphone Isn't Enough "To Do Everything I Want Online"



Stay Connected

Still, People Interviewed Report Slower Internet Speeds from Many Discounted Programs. Users of discounted service programs offered many stories of instances where the discounted connections did not meet their family’s connectivity needs. Slow speeds, especially for families sharing connections, force some to spend more to upgrade their internet to adequate services, or miss out on opportunities. And for those who had enough devices where two or three people could be online at once, data was often insufficient to participate in Zoom meetings, watch videos, or participate in other high-data activities.

“So I was able to do the \$10 internet, and we was in there like swimwear. Well, I thought we was good... But then once I started having to work from home, now you need fast internet. Now my kids’ iPad has to be hooked up to my Wi-Fi... For the at-home job that I had, my internet wasn’t fast enough. So lo and behold, I had to get the bigger package, but now they have a thing to where you get a \$30 credit toward your bill. But it’s still \$112 a month.”

“I was on my interview, and she’s like “Hello”, and I can hear her, but she couldn’t hear me. I was like reconnecting, and I picked up my phone so fast. And I was like, ‘I’m so sorry! Can we please, can we please wait a minute, don’t, please, please’... because I lost another job because of [a dropped Zoom call].”

Maintaining Eligibility for Discounted Internet Connections is Subject to the Benefits Cliff and Other Criteria that can be Onerous for the People who Rely on Them.

Several people interviewed talked about the precarious relationship between discounted internet programs and other benefits. For example, some noted that their participation in the discounted program is connected to their participation in other programs like free and reduced lunch for their children, food stamps, or another income-dependent benefit. These individuals talked about the challenges of maintaining their internet connection when faced with a “Benefits Cliff” – the precarious position where making too much money could trigger the loss of benefits that the discounted internet subscription is tied to. In these instances, maintaining connectivity could be at risk with a rise in income, which could put any internet-dependent job at risk. Others interviewed talked about the requirements of maintaining a Lifeline phone subscription, which include responding to an annual letter asking to verify continued eligibility. Those interviewed who rely on Lifeline and who are experiencing homelessness reported challenges receiving the letter to verify continued eligibility, which then caused a cascade of challenges to reconnect to the service. In every example, the relationship between benefits eligibility and internet connectivity was both fragile and consequential.

“I had to go down from unlimited data to \$30 a month. I am only allowed to have so much data. I’ve been trying to get on the connectivity program through [provider], but every device they try to offer me, I got to pay for the device and I don’t have that kind of money. You know, because I only get \$110 a month.”

- “We have free food from school. If you have a free food certificate from school, at [provider], [you’re] gonna pay just like \$9.99 per month.”
- “All of us are through SNAP, medical or GA. If that gets denied, now you have to pay them money to keep your service. At the same time you’re going around trying to find, ‘Okay, can I get back into the service again’, but now you got to go through another provider that does the [discounted phones].”
- “Right now I’m using a government program phone, and they assist us with gigabytes of data. And they assist us with a resource so we can buy extra data and extra gigabytes.”

More BIPOC Residents are Relying on Prepaid Plans to Connect Their Cell Phones.

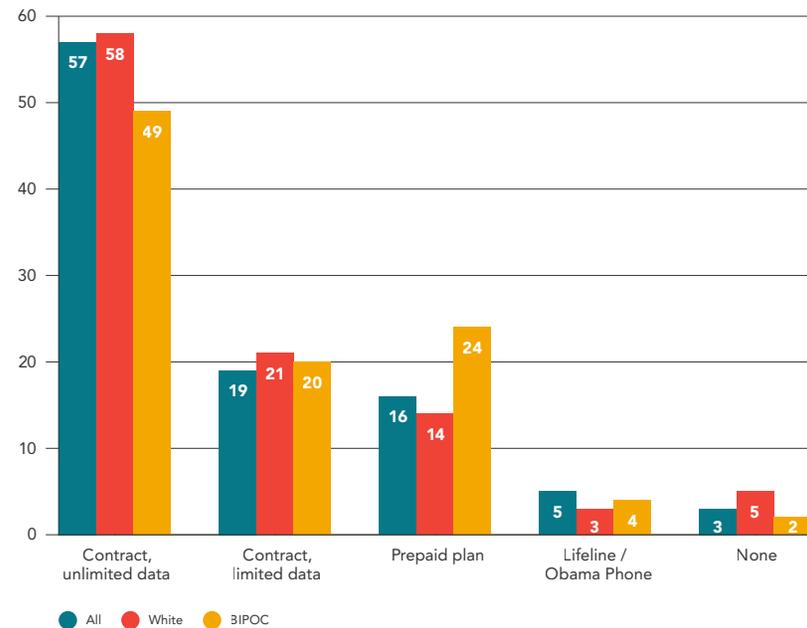
There is a racial gap in prepaid plan use, with almost 1 in 4 BIPOC respondents relying on a prepaid phone plan, compared to just 14 percent of white respondents. Over half of all BIPOC residents in the survey reported they do not have an unlimited data plan.

A smartphone’s ability to provide online access is only as strong as the data plan tied to it. About half of residents have cell plans without unlimited data. However, BIPOC respondents are over-represented among those with prepaid cell plans.

This is significant for two reasons: first, there are significant financial incentives to have contract cell plans – and these plans are only available to people who pass credit checks. Contract cell plans often include device discounts, rates are guaranteed for a longer period of time, and these customers are prioritized for higher-speed data at peak times. However, accessing these plans

requires passing a credit check. Second, there are significant financial and communication costs to the inconsistent nature of prepaid plans. Prepaid plans typically start at a higher monthly cost and decrease over time with consistent payment. However, if a payment is missed, then the customer must pay the missed payment, potentially faces a mark on their credit, and must return to the higher monthly cost when the plan is reinstated. There are also social costs to the inconsistency of prepaid plans when customers must find a new carrier to reinstate service and may face changing phone numbers, for example.

Ramsey County BIPOC Residents Disproportionately Rely On Prepaid Cell Plans



Connectivity is Precarious for Those with Limited or Unstable Income.

Many people interviewed rely on pay-as-you-go or month-to-month cellular plans, and some also had a reduced-cost broadband internet connection at home. For these individuals, maintaining connectivity can be precarious because a missed payment on the cell plan could lead to both a cut phone line and a fee to resume service. The lost phone line could then lead to greater disconnection, should the person lose a phone number, for example. Probation officers interviewed talked about the topic of disconnected cellphones, in particular, as having devastating consequences for individuals who would lose touch with the system for probation check-ins, lose touch with employers, or other consequences as a result. Corrections staff have moved to collecting email addresses, rather than phone numbers, from people upon release as email addresses are now seen as a more dependable way to reach people with precarious connectivity.

“Yeah, I have a cell phone. I use public Wi-Fi right now. Until I pay my data, mobile data.”

“I’m in a situation where I can’t pay for the bill and then I just let [the service] go.”



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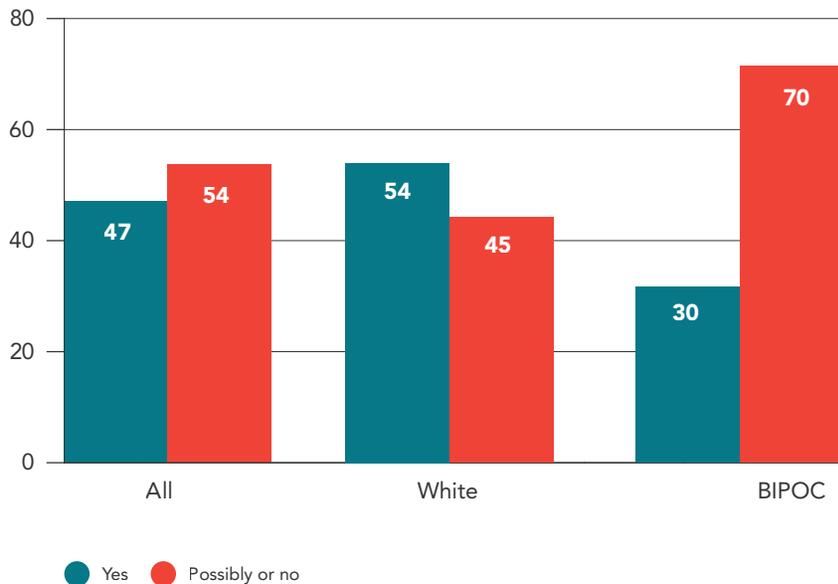
Many Rely on Buses and Public Locations to Connect to the Internet.

Lack of consistent access to online connections, particularly at home, is a barrier to accessing digital opportunities. Some residents interviewed do not have internet access in their homes, and must rely on public Wi-Fi to connect to the internet. This requires leaving home to complete any online task, and limits capacities to work, attend school, and more. Many residents relying on Wi-Fi from public transit shared that public internet was not consistently available or reliable.

- “The way that I connect through the internet is through public places that have and offer free internet. In some cases, you know, there’s people that don’t, aren’t able to have internet, or don’t got enough, you know, to afford it.”
- “Most places, the signal was good. But because I work out in Burnsville, like public transportation, they’ll say that they provide Wi Fi on the on the bus, but most of them don’t.”
- “We ride the city buses a lot. Half the time that there’s Wi Fi on every city bus, half the time that doesn’t connect...”

Fewer BIPOC Residents Can Afford to Replace or Upgrade their Devices as Needed. Many surveyed report they are not able to afford to replace or upgrade their smartphones, computers or tablets if they are lost, stolen, or broken. The racial divide across these responses is steep. Only 30 percent of BIPOC respondents agree they could afford to replace or upgrade a device, while 70 percent said they possibly or definitively could not replace or upgrade if needed. For white respondents on the other hand, only 45 percent said they possibly or definitively could not replace or upgrade a device. This points to a real difference in the fragility of internet access for people of color.

"I can afford to replace or upgrade my smartphone, computer or tablet"



Many People Can't Afford to Fix or Replace Their Devices if Broken or Lost. While getting connected to devices is a step towards getting online, devices inevitably age, or are broken, lost, or stolen. Those interviewed talked about simple accidents – a dropped phone or laptop – as being all that would separate them from staying digitally connected. Others talked about the high cost of replacing and upgrading devices – and the reality that some cell plans and other connections no longer work on older smartphones and tablets. It's worth noting that secret shopping conversations with cell phone providers found that cell phone discounts are only offered as part of an annual cell plan contract, and cell plan contracts require a credit check to access. People who have pre-paid or pay-as-you-go cell plans must provide a cell phone paid for up front or separate from the cellular plan, and typically without the discount that comes from a phone purchased as part of cellular contract.

- “At the beginning of the pandemic, I did have a laptop. Unfortunately, my nephews were playing and they broke it... [then] I was without because I couldn't afford to get a laptop or a computer.... The next best thing they told me I can do is go to the library.”
- “I did have one computer, but my son was in a mental crisis and broke it in half because he was missing my mother.”
- “Right now, I have this phone I have had for three years because I can't afford a new one.”

Not Enough Devices and Shared Space can Create Connectivity Challenges for Some.

Ramsey residents interviewed often mentioned limited devices and insufficient internet speeds that led to sharing or rationing internet use. Sharing connections across a family can have knock-on effects, from missed job opportunities to difficulty in accessing or succeeding in virtual work and school. People interviewed specifically mentioned the stress and challenges of accessing enough devices that everyone could complete what they needed to do online for work and/or school. Limited private space also created a barrier to online access for some, such as those interviewing for jobs in a shared and potentially disruptive environment.

- “Sometimes having multiple kids takes up a lot of internet. Having that limit really hurt me. I’m like, oh my god, we’re all gonna go crazy here. We can’t go outside, everybody put their head down and lay on the floor and just cry.”
- “I do think that we assume people have the bandwidth to be able to do these Zoom meetings, and we assume people have like a quiet space that they can have, you know, have these type of Zoom meetings without their kids and stuff like that with Zoom, that type of stuff. And that’s not real life.”
- “I had four Saint Paul Public School students in the house when the pandemic [started], so there was need for almost everybody to have their own personal hotspot just so the service wouldn’t lag. And now I did have a hotspot, my daughter ran off with it.”



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Know How to Use The Connection

Residents Realize Digital Skills are Needed to Access Modern Opportunities.

Generally, the Ramsey residents interviewed understand the benefits and importance the internet can have in life. Even people with limited digital skills talked about the importance of gaining a stronger ability to navigate online searches, apps or other programs to access the jobs or other goals they had set for themselves. For those less confident or skilled at accessing the internet, friends and family or digital training programs were go-to resources for accessing online resources they needed. It's worth noting the intergenerational aspect to many skills conversations with people interviewed. For example, one young immigrant woman talked about providing her parents and grandparents with set-up help so that they could use online tools to communicate with family in Africa.

- “Well, I’m not really technology literate. So I get someone to look it up for me, look up something, or to help direct me. But having it, the tool itself, and having access to the internet, makes it easier...”
- “Well, I once I get the training, I’d like to access the worldwide information and news.”
- “[My family needs] more technology, more internet. Internet is very important for everybody...So I am trying to soak up the computer, everything. I think [that in the] future everything is on computers. So I try to attend a class for a computer system.”



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Navigating Digital Spaces Can Be Daunting for Those Who Lack Digital Skills.

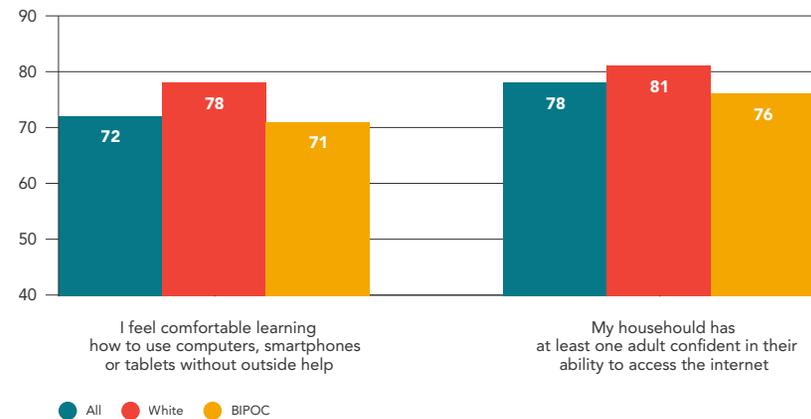
A noteworthy segment of people interviewed don't feel comfortable going online alone because they lack familiarity, skills, or potentially language barriers. For many of these people interviewed, family and friends offer essential support that helps to reach specific programs or activities on the internet. However, accessing online opportunities is hard enough for these people interviewed that they likely access only a fraction of the opportunity (resources, social connections, jobs or others) that would be reached with more knowledge and confidence to navigate online programs, apps and other resources.

- “I don't use [the internet] at all, because, you know, I run from it you know because I don't know how to do it, you know, so I don't be bothered with it.”
- “I'm in that middle generation to where it's like, I know how to use the internet and stuff. But at the same time, it's like, I didn't have all this when I was a kid...I'm not used to what they have as a kid growing up.”
- “...Sometimes to get into a [Zoom or online] meeting, at first I don't know how to do it, so I have to ask other people for help.”
- “For me it was very shocking when school started, because the truth is I didn't know how to use the Internet.” (Translated)

Residents Report Different Levels of Comfort with Tech.

Confidence and comfort using technology impacts how people access the internet. Just over 3 of 4 white respondents feel comfortable learning how to use computers, smartphones or tablets without any outside help. For BIPOC respondents, however, that number dropped to 71 percent. For those relying on others for assistance getting online, 78 percent of all respondents reported that their household has at least one adult confident in their ability to access the internet. That number was higher for white households (81 percent) and BIPOC-responding households (76), but overall reported confidence navigating technology and online opportunity is strong.

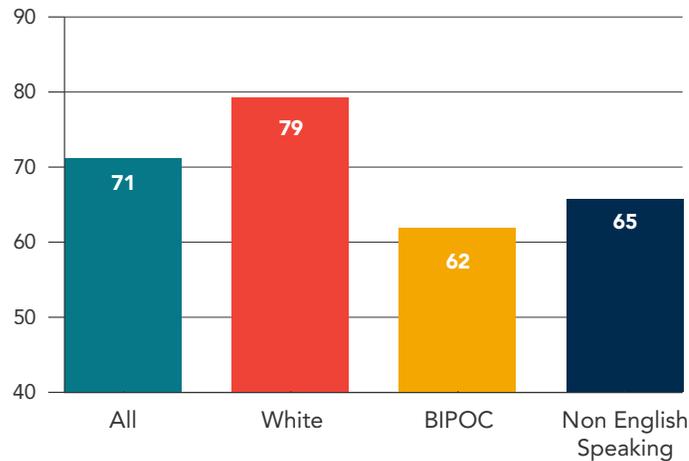
In-House Tech Help Varies



Not Everyone is Comfortable Teaching Themselves

How to Use Tech. Notably, while 79 percent of white respondents are confident in their ability to read instructions and teach themselves, only 66 percent of non-English speaking respondents and 62 percent of BIPOC respondents share that confidence..

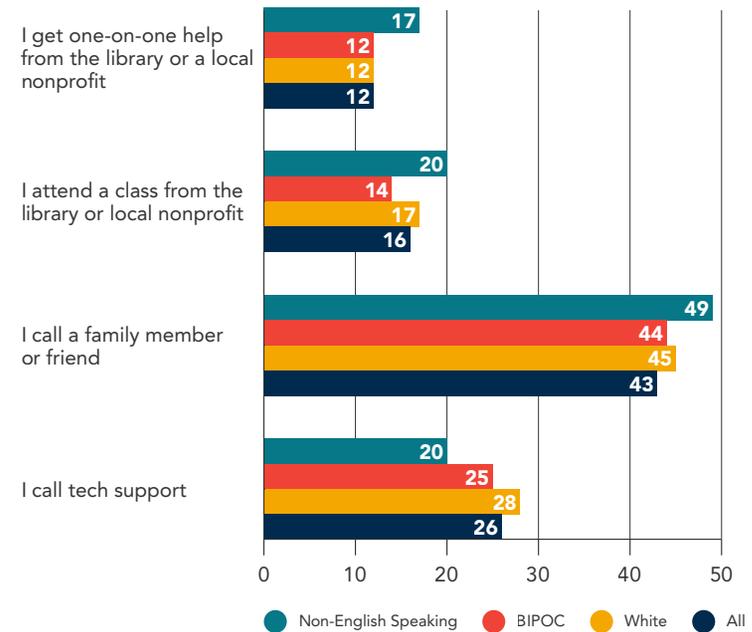
I am confident reading instructions and teaching myself



BIPOC, Non-English-Speaking Residents Rely On Trusted People, Organizations.

Overall, family and friends are respondents' preferred route for added help across races and languages. Non-English-speaking respondents reported the most comfort asking family or friends, attending classes or getting one-on-one help from the library or a local nonprofit. It's also worth noting that English-speaking BIPOC respondents consistently reported the lowest likelihood to reach for most types of help and the lowest confidence "reading instructions and teaching myself."

Ramsey County Residents Turn to Family, Friends for Online Help



Language Barriers Can Make Navigating the Internet

Difficult. For Ramsey County and Saint Paul residents who do not speak English as a first language, navigating online spaces can be especially challenging. Several interviewed reported struggling with navigating websites and online spaces because even though websites may be translated, search terms may not be or the navigation is not intuitive to another language. Some interviewed report relying on their teenage or young adult children to help them navigate online spaces.

This challenge is not an entirely new phenomenon. Children of immigrants have sometimes reported playing important translation roles for their parents in translating financial documents or medical information, or other complex topics. Based on interviews conducted, it appears that children of non-English speaking immigrants are now being asked to play that role to an even greater role in some households as the children become the translator and access-point to everything that must be done online.

- “[Getting online] is very hard. I have no idea what to do because I don’t speak English and everything’s in English.” (Interpreted)
- “Okay, so I don’t speak English, so obviously it’s hard for me to get online. So everything I have to do, it needs to be interpreted or translated.”
- “Sometimes, some English words may be difficult. [Getting online] was difficult, but now, I mean, I adapted online.”

Navigating Online Safety is Intimidating for Some.

Ramsey County and Saint Paul residents in some focus groups expressed nervousness about going online; all of them were mothers. For these women, concerns centered around not feeling confident in teaching their children how to navigate online spaces, protect financial or private information, and to generally keep themselves safe from scams, predatory individuals, or other online dangers.

- “I have younger girls. The youngest is three, the oldest is 11... It’s hard to monitor what they watched on YouTube. There’s been plenty of times with my oldest one [where] I’ve had to really monitor what she’s watching.”
- “I want to feel safe and secure about using online because I got scammed... sometimes I feel very insecure about how much privacy I will get by posting [online].”
- “I’m kind of funny about giving people my Social Security [online]... I’m really kind of funny [about it] because I know they can take your information.”

Conclusions

1

Digital inclusion is the foundation of an equitable future.

From jobs and school to shopping and social connection, opportunities of the future are online. Achieving Ramsey County and Saint Paul's commitment to equity starts with ensuring that every person has access to the technology, online connections and skills they need to reach the opportunities of the future.

2

Digital inequities are built on and reinforced by economic inequalities.

In Saint Paul and Ramsey County, broadband internet connections are everywhere, yet full connectivity is not. Unfortunately, the people and communities being left behind from digital connectivity are the same people and communities that have been systemically excluded from economic opportunity for generations – be it homeownership, the G.I. bill, or others. These realities show that digital inequality is rooted in economic inequality, not solely in technology or expanding access to rural broadband. Solutions must address it as such.

3

Federal and state policy is shifting rapidly during and after the pandemic, creating new opportunities to and contexts for making progress on digital inclusion.

Over the coming years, more resources will be dedicated to broadband expansion and digital equity than in the past decade or more, combined. Equally important, digital inclusion is recognized as a highly-consequential issue of equity and economic inclusion – not just a challenge of technology – since the pandemic elevated the essential nature of fast, reliable online access.

4

**Residents see their needs as three-fold:
Get Connected. Stay Connected.
Know How To Use The Connection.**

Existing programs to help people get connected with high-speed internet connections at free or reduced costs and technology like computers, tablets or smartphones proved essential during the pandemic. Other efforts provide digital navigators to help people know how to make the most of online tools and resources.

However, the connectivity challenges faced by people with low income, limited credit, limited English language skills, unhoused or unstably housed, or just leaving the corrections system make maintaining connectivity far more challenging. These people also face far greater consequences when connectivity is lost because, ultimately, digital inclusion is foundational to equity.

5

**Connectivity is a complex and enduring issue,
but state and local governments' programmatic
infrastructures are just starting to catch up to
lessons of the pandemic.**

In the next six months, Minnesota and states across the country will embark on statewide digital equity plans, marking the first time most have looked deeply at the topic of digital inclusion. These plans will usher in a period of unprecedented infrastructure investment, affordability programs to access internet connections and more. Yet the experiences of people in Ramsey County and Saint Paul show that these investments will require strategic effort and an attention to the ongoing, systemic challenges of people with low incomes, limited credit, limited English, as well as the unhoused and those leaving the corrections system, if these landmark investments are to usher in true digital inclusion. To date, city and county efforts have housed digital inclusion efforts across the number of teams and departments impacted by digital inclusion: libraries, workforce programs, offices of technology, and more. This new era of digital inclusion may warrant the creation of a coalitions, departments or programs solely focused on digital equity to truly capture progress possible at this unique point in time.

Recommendations

The Connectivity Blueprint recommendations and supporting strategies reflect the input and ideas generated at the Digital Inclusion Leadership Summit, a half-day workshop that brought together more than 80 area leaders to hear the lessons of engagement and collaborate on potential solutions. SDK further shaped the ideas into strategies and engaged with the Connectivity Blueprint Steering Committee to invite feedback and finalize direction. The collaborative processes is designed to create collaborative and community-wide strategies. Ramsey County and Saint Paul will take steps in the months ahead to implement some ideas, and others will be led by others. Broad implementation and collaboration in bold pursuit of digital inclusion is encouraged.

1

Build Awareness of Digital Equity As An Equity, Not Infrastructure, Issue

Digital equity is the foundation of an equitable future and an inclusive economy. Yet the digital nature of this very topic can make it hard for people with full connectivity to see and understand. Added outreach and public information efforts can both help Ramsey County and Saint Paul leaders better understand the reach and opportunity of digital inclusion for the Metro Area, and help those without full connectivity to reach much-needed resources.

Strategy: Engage residents and leaders to understand digital inclusion in Saint Paul and Ramsey County.

Getting every resident of Saint Paul and Ramsey County the devices, subscriptions and skills they need to get connected and stay connected isn't just a nice to do – it's essential. Collaborate across sectors to build awareness of digital equity's contours and consequences through public information campaigns, coalition building and related engagement.

Strategy: Pursue Affordable Connectivity Program (ACP) grants, leverage tools.

Ramsey County applied for the ACP outreach grant program. This will provide an important opportunity to build awareness of the \$30 per month available toward internet connectivity for individuals.

2

Take Immediate Actions To Strengthen And Grow Programs

Ramsey County and Saint Paul are home to a vibrant network of libraries, workforce development centers, nonprofits, schools and others working toward digital inclusion through a variety of projects and programs. Continuing and expanding these programs in tandem to systemic efforts can help ensure momentum built during the pandemic can continue and grow.

Strategy: Engage residents and leaders to understand digital inclusion in Saint Paul and Ramsey County.

Strategy: Create tools and places that make public sector programs accessible to people who are not connected. Examples could include “Connectivity Rooms” for online job interviews or doctor appointments; charging stations at public locations like DMVs, libraries or light polls; equipping service navigators to ask about connectivity and make referrals; and more.

Strategy: Evaluate connectivity of pandemic device recipients.

Ramsey County and Saint Paul, school districts and others deployed hundreds, if not thousands, of devices and hot spots to provide people with connectivity during the pandemic. Now is an opportune time to evaluate how many of the people who received devices are still connected and what might have caused any loss of connectivity. These results can provide powerful information for broader systems changes or policy efforts aimed at ensuring that when people get connected, they can stay connected.

Strategy: Expand device recycling to support tech access.

The Metro Area has a strong ecosystem of technology recycling partners and major employers often participate in the effort. For example, Ramsey County expanded its technology recycling programs in 2022. Future collaborations should engage employers to further expand tech recycling programs and expand distribution of recycled technology to those who need access to devices.

Strategy: Coordinate, strengthen and support digital fluency.

Continue to invest in successful programs, especially embedded digital navigators at community-based and culturally connected nonprofits. Inventory existing services and create tools that can help other trusted community venues (churches, schools) provide referral or support.

Strategy: Ensure everyone has sufficient devices, subscriptions to get and stay connected.

Strengthen and expand programs that are working. Provide an array of devices, including desktops, at low costs. Additionally, consider broader approaches like free fix-it clinics from device providers and community-wide help services (similar to 311’s service referral).

3

Collaborate To Maximize Federal Funding For Digital Equity In Ramsey County and Saint Paul.

The Infrastructure Investment and Jobs Act will make unprecedented investments in connectivity beginning in 2023, including Minnesota’s first investments in digital equity plans and programs. However, many policy and program rules are designed to address connectivity as an issue of access to wires, which would emphasize expanding broadband infrastructure in rural stretches. This approach could leave Ramsey County, Saint Paul, and the thousands of residents facing barriers to digital inclusion behind.

Strategy: Map Saint Paul and Ramsey, and challenge where needed.

This could include address-by-address connection tests and submitting findings to both the FCC and local leaders. Special attention should be given to underserved areas that are eligible for federal broadband funding.

Strategy: Ensure everyone has access to the infrastructure needed to get online.

Look creatively at existing infrastructure. Examples from other communities include: free wi-fi in parks, strengthened wi-fi on buses and at bus stops, leveraging light poles and tall buildings to provide “mesh networks,” and building high-speed broadband into apartments’ rent price.

Strategy: Develop a Metro Area Voice or Coordination Table.

Digital inclusion is a greater need in the Metro Area than Greater Minnesota by sheer numbers, but the policy needs are very different. Coordination can amplify impact, especially for state policy and state-managed funding forthcoming. Consider coordination at two levels, likely different tables: First, there is strategic and policy coordination that works to build momentum for digital equity. Second, there is execution coordination that works to maximize implementation resources of existing programs and services. Both are necessary but strategically distinct.

4

Advance A Digital Equity Policy That Makes Internet Accessible To All

Ultimately, programs alone will not get us to digital equity. There are several opportunities for policy and systems changes – from the organizational policy to state and local government – that can complement successful programs and accelerate digital inclusion.

Strategy: Create a “Digital Inclusion in All Policies” Tool.

Create a model policy and supporting analytical tool to help organizations evaluate policies and budget for its impact on digital equity and those facing a digital divide. A tool and policy of this nature would aim to help decision makers – whether elected officials, business leaders or others – to be cognizant of any latent opportunities to further digital inclusion, or unintentional consequences for the digital divide, in any program or budget implemented.

Strategy: Create and deploy a Digital Access screening question.

Many intake forms, from county benefits to doctor’s appointments, include screening questions for things like food and transportation access. Create a similar question for Digital Access screening and work to deploy the screening question and tool to a broad array of organizations that conduct screening as part of their intake processes. Work with data systems like health records, benefits, and others to receive and track data collected at regular intervals to create a clearer picture of digital access in Ramsey County, Saint Paul and beyond.

Strategy: Develop A Metro Area Digital Inclusion Platform.

Collaborate to create a policy platform. SDK has prepared a list of options and the FCC’s digital discrimination report included other examples. Policies could be at the state level (e.g. Net Neutrality), local level (e.g. considering digital inclusion in Multi Unit Dwelling building permits), or business policies (e.g. maintain warranties for repaired devices).

Strategy: Convene a “Tech Benefit” Work Group and define potential benefit.

Engage healthcare providers, insurers, employers and others to identify shared goals and design an insurance-like benefit product for providing full connectivity. The ideal benefit would include a monthly fee, similar to an insurance premium, and would provide updated technology, a broadband subscription or data plan, and technical support for one monthly price. Given the growing importance of full connectivity in online work and health care, such a benefit could become part of employment benefits, health insurance benefits, or a stand-alone benefit available for purchase.

Advance A Digital Equity Policy That Makes Internet Accessible To All (continued)

Strategy: Support Saint Paul's Franchise Agreement Renewal Process.

Saint Paul's agreement must be complete by February 2025, but engagement about local priorities and discovery can start earlier. The process of updating the Franchise Agreement can be an opportunity for discovery, wherein local leaders can learn more about the types and levels of connectivity available throughout the city. The process is also an opportunity for city leaders to engage with residents and staff about their goals for a connected future, and to frame an understanding of the opportunities and trade-offs in building the infrastructure needed for a digitally connected and equitable future.



The portraits above are of project interviewees. Participants were compensated for their time in each interview.

Methods

SDK relied on a number of research methods and engagement approaches to fully assess the digital inclusion landscape in Ramsey County and Saint Paul:

- 1. Policy Scan.** A literature review of policy papers, trade association information, newspaper articles and other sources provided a comprehensive grounding.
- 2. Broadband mapping.** AppGeo mapped Ramsey County's broadband infrastructure (25 Mbps / 3 Mbps) using publicly available data from the Minnesota Office of Broadband. American Community Survey data of full connectivity was used to create a second map, illustrating levels of connectivity by Census tract.
- 3. American Community Survey data analysis.** SDK conducted an analysis of American Community Survey data to analyze connectivity by race, income, age and other factors.
- 4. City and population model analysis.** SDK analyzed the connectivity strategies and sustainability structures of city-wide or county-wide efforts such as Toronto, Columbus, OH, San Antonio, TX, Charlotte, NC, and Detroit, MI.
- 5. Community-focused listening sessions.** SDK worked with community partners to hold listening sessions aimed at hearing from various communities. Special effort was made to connect

with people experiencing homelessness, people leaving the corrections system, Black, Hispanic, American Indian and immigrant communities. These communities of intentional engagement were identified based on census and policy research.

- 6. Opportunities for public input.** Materials used to collect input include paper comment cards, online and paper surveys, a call line and a webpage comment box. Print materials were available at Saint Paul libraries and at nonprofits across Ramsey County. The survey was offered both online and by paper in three languages: English, Spanish, and Karen. A total of 172 community members completed the survey online and in-person at various engagement events throughout the community, and half of respondents were people of color.

- 7. Expert and thought leader interviews.** SDK conducted interviews with experts to better understand the policy context, priorities and future opportunities of digital inclusion. In total, 25 interviews were conducted with leaders from state regulatory agencies, national digital inclusion experts, key staff of communities implementing cross-sector digital inclusion strategies, educators, immigrant service providers, corrections professionals, professionals serving the unhoused community, and others.

8. Digital Inclusion Leadership Summit. The Digital Inclusion Leadership Summit was a half-day workshop where stakeholders were invited to hear the themes of engagement and plan for the future. The event was attended by more than 80 leaders from digital inclusion nonprofits, workforce and economic development, local governments, and others. Ideas surfaced at the Digital Inclusion Leadership Summit provided the foundation for the Connectivity Blueprint's recommendations.



The portraits above are of project interviewees. Participants were compensated for their time in each interview.

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